mTiny Education Resources

Getting Started Activity Lessons

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Quick Start Guide & Safety Instructions

- Quick Start Guides
  - EN-Quick Start Guide

FR-Guide de démarrage rapide ES-Guía deinicio rápido

PT-Guia deInício Rápido

BG-Ръководство

RU-Руководство по началу работы IT-Guidarapida

KR-빠른 시작 가이드

TC-快速使用指南

NL-Snelstartgids

Safety Instructions

EN-Safety Instructions

FR-Consignes de sécurité

ES-Instrucciones de seguridad

PT-Instruções de segurança

BG-Инструкции за безопасност

RU-Инструкциипо технике безопасности

IT-Istruzioni di sicurezza

KR-안전수칙

TC-安全使用說明書

NL-Veiligheidsinstructies

mTiny Discover

Getting Started Activities

Welcome!

mTiny Discover Getting Started Activities have been developed for Makeblock's first screen-free robot, mTiny. This curriculum guide has been designed to help educators learn, plan, and implement joyful robotics activities in early years settings.

At Makeblock, we understand that early childhood educators' schedules are busy and it can be challenging to introduce cutting-edge technology into the classroom for preschoolers. However, technology education leverages trends of the future of education and mTiny makes implementation easy.

This guide is suitable for educators with or without experience of programming or computer science. It is adaptable, flexible, and easy to use. The guide not only explains some of the basic programming concepts but also offers example learning activities to facilitate your learning and teaching.

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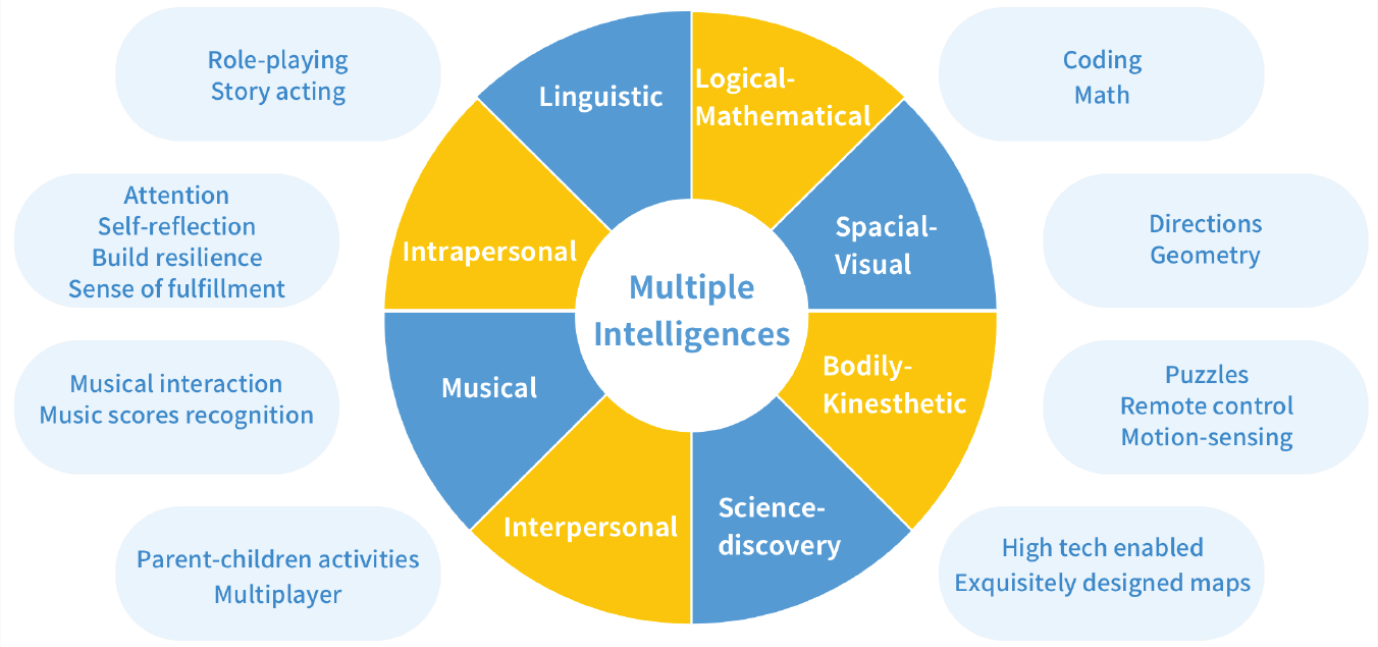
Education Values and Pedagogy

mTiny is a programmable robot for preschool children growing up in the digital age. It is a toolkit to nurture children's 21st century skills—in particular, literacies that go beyond reading and writing skills. Information literacy, media literacy, technology literacy, and numeracy are key focuses in this curriculum. Moreover, mTiny's tangible programming blocks and jigsaw-puzzle-based map blocks are fun for children, but also help develop their higher-order thinking skills, bridging the concrete and abstract thinking with scaffolding instructions.

Logic and Computational Thinking		Visual and Spatial Thinking
Pattern Recognition		Orientation
Abstraction		Mental Rotation
Algorithms		Route Planning
Evaluating Solutions		Navigation

Theoretical Underpinning



Connection to Child Development

With mTiny, preschool children will not only learn about focus, concentration, and memory by following instructions and guide during the activities but also enjoy a lot of developmental benefits.

Physical Development
Hand-eye Coordination
Gross Motor Skills
Fine Motor Skills

Language Arts and Literacy
Vocabulary and Concepts
Computational Concepts
Spatial Concepts
Signs and Symbols
Communication
Creative Storytelling

Mathematics
Number Sense and Counting
One-to-one Correspondence
Symbols and Numbers
Spatial Sense
Shapes and Patterns
Parts and Wholes
Sets and Groups
Sorting, Categorizing, and Classifying
Sequencing
Comparison

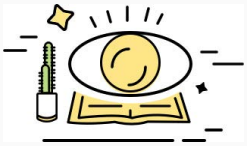
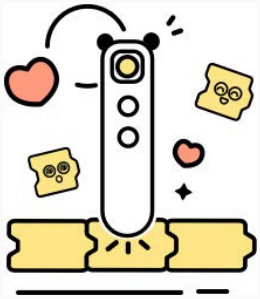
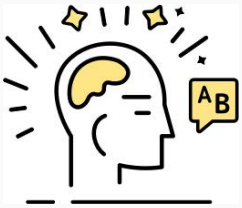
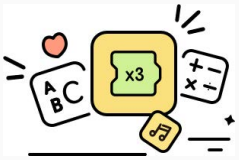
Cognitive Development
Focus and Concentration
Memory
Representation
Self-reflection
Imagination
Logic and Analytical Thinking

Socio-emotional Development
Listening and Responding
Self-management
Independence
Collaboration and Leadership
Confidence
Persistence and Resilience

An Introduction to mTiny

mTiny is a programmable robot kit for children growing up in the digital age. It can be operated by tangible programming language, i.e., writing codes without the screen.

The preschooler-friendly tangible programming interface allows children to use touchable coding cards (instead of graphical programming blocks in software) to create various human-machine interactive effects. It is an easy way to learn to code and practice computational thinking skills for both younger children and early childhood educators.

Screen-free Activities	Coding by Tapping	Supporting New Literacy	Integrated Approaches	Open-ended Plays
				

To know more about mTiny, see:

- Tangible Programming at a Glance
- Classroom Activity Preparation

Tangible Programming at a Glance

Tangible programming language is a set of physical programming blocks that enables children without prior coding skills. A huge advantage of coding this way is that being literate is not a requirement. By assembling and connecting physical blocks with image graphics and signs, children can create a tangible representation of abstract concepts, ideas, and even stories that they can communicate and share with peers.

The mTiny robot kit includes the following coding cards, which are a form of tangible programming language that is used in the activities.

There are nine types of basic coding cards:

Facial Expression Cards:

Happy Silly Angry Sad Scared Dizzy Sleepy

Tapping a facial expression card can make mTiny produce interactive effects. Children can use Facial Expression Cards to have mTiny put on an expression. They can also combine Facial Expression Cards with other coding cards (e.g. action cards) to get immediate feedback while executing a set of codes.

To introduce the First In First Out (FIFO) rule, for instance, you can ask children to combine a facial expression card and a forward card in the first place. Then ask children to combine the forward card and the facial expression card.

Have children observe and compare the two effects, and answer the following questions:

(1) In the first case, what did mTiny do first? Laugh or move forward?

(2) In the second case, what did mTiny do first? What makes the difference?

> **Note:**
>
> What is First In First Out (FIFO)?
>
> The FIFO rule means the command of the coding card that goes in first is the command that comes out first.
>
> Suppose that you were queuing outside the theater, you would be at the front of the queue if you arrived early. Accordingly, you would enter the theater first if you were at the front of the queue.

To conclude, using Facial Expression Cards can help gain the understanding of the relations between the robot and coding cards, i.e. the fundamental rule of programming mTiny.

Furthermore, Facial Expression Cards can also be used as the “signal block” to get immediate feedback when children explore the concepts of events and sequence. It is important to understand the relations between the sequence of coding cards and the sequence of mTiny’s actions, in particular when children want to create complex interactive effects or to execute a long set of code.

Action Cards

Forward Card: To make mTiny move a specific distance of one map block (18.6cm) forward.

Turn Right Card: To make mTiny turn to its right-hand side by 90 degrees in the clockwise direction.

Turn Left Card: To make mTiny turn to its left-hand side by 90 degrees in the counter-clockwise direction.

Input Card

To help mTiny remember the set of commands that you would like to execute later.

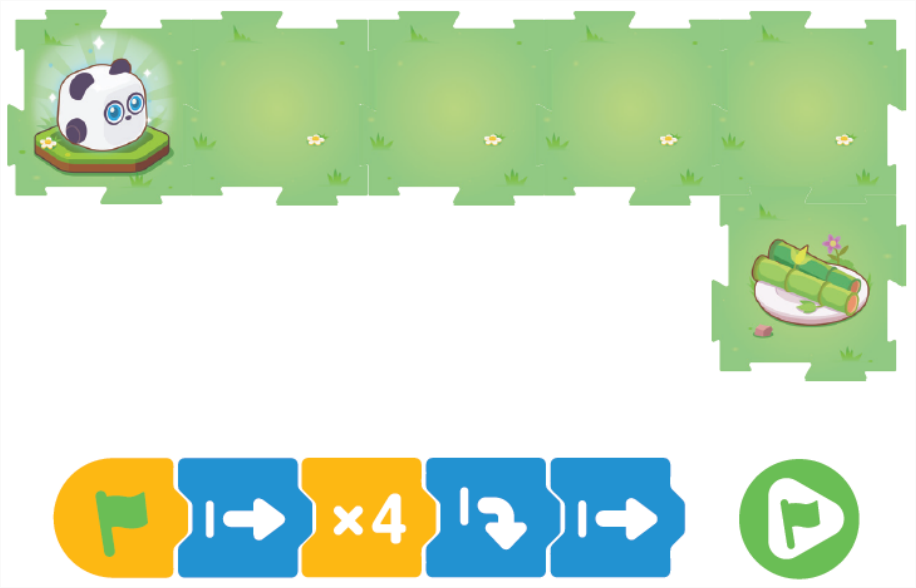
Remind children that the Input Card is to make mTiny record the commands rather than execute them, and that the Go! Card is the one to make the robot run the code.

Go! Card

When you tap the Go! Card, mTiny will execute the set of commands.

Repeat Cards

The Repeat Card is a control programming block, which essentially causes mTiny to run the same code several times. Using a ×5 Repeat Card after one Forward Card will cause mTiny to move forward five steps. In other words, the command “move forward” is repeated five times.



Loop Cards

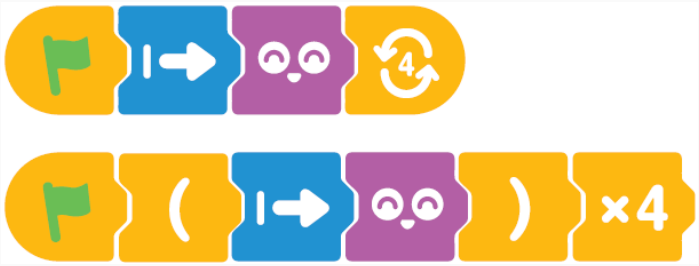
The function of Loop Cards is similar to the Repeat Card. However, notably, the shape of Loop Cards indicates that it is intended to be placed at the end of a series to repeat numerous commands in a loop.

A loop card with a number can make a series of commands execute repeatedly by a specific number of times. The Loop Card without any number can execute the commands over and over.

Loop Parentheses

Loop Parentheses should be used in pairs and combined with a Repeat Card. It is useful to create more complex interactive effects and extend the functioning because of its open-end shape.

Since adding a Loop Card indicates the end of a sequence, no other coding cards can be added after the Loop Card. However, due to the open-end function of the Loop Parentheses, other coding cards cam be added after them and the said code included in the parentheses will be executed.



Have children execute and compare the two sets of code shown on the left.
What is the same and the difference between them?

It is important to note that the use of loop parentheses is not appropriate for children ages 4 to 6 targeted in this curriculum guide.

Advanced learners with primary mathematical knowledge are welcome to try this more challenging aspect of mTiny.

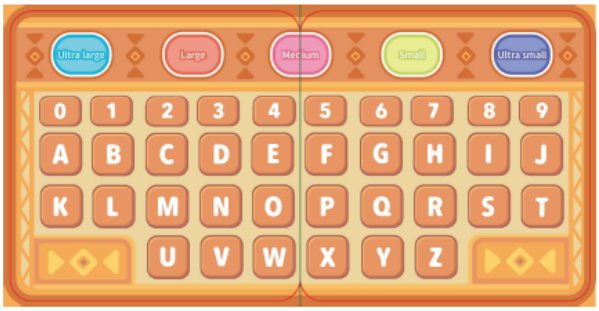
Music Note Cards

Tapping a music note card can make mTiny play a note or a melody.
Individual note cards can be combined to play multiple notes or they can be combined with other coding cards to form a complete program.

Shapes & Line Cards

Using the Markers in the mTiny Discover kit, mTiny can draw shapes and lines. These coding cards can be combined with other coding cards to create complex programs. mTiny can also use the Pen Up and Pen Down coding cards with the joystick or Action cards to draw along mTiny's motion path.

The Keyboard Activity Card can be used to program mTiny to draw letters, numbers and words. Use the icons at the top of the Keyboard Activity Card to adjust the size of the characters.



Classroom Activity Preparation

Make sure each child knows how to:

(1) turn on and off mTiny the robot;

(2) Pair the robot with Tap Pen Controller.

Individual Play
1 mTiny toolkit for each child
1 set of map blocks for each child
1 set of coding cards for each child
Duration: 30 to 45 minutes

Group Play
1 mTiny toolkit for each group of 2 to 4 children
Children may share map blocks and coding cards in the group
Duration: 30 minutes to 1 hour

Curriculum and Activity Plans

mTiny curriculum was developed with children ages 4 to 6 and early childhood educators in mind. The curriculum is made up of 12 activities at three levels.

Beginner's Level	Intermediate Level	Advanced Level
Red Light, Green Light	Little Road Mender	mTiny's Weekend
Forest Party	Ring Road Itinerary	
What's the Time, Mr. Wolf?	Little Bus Driver	
Zig-zag Bridge	Help Me, Please!	
Where's My Bamboo?		
Drawing with mTiny		
mTiny Tunes		

Outline and Activity Description

Activity Name	Description	Key Concept
Red Light, Green Light	Children will explore the use of mTiny the robot and its Joystick Control mode, and understand the relations between mTiny and the Tap Pen Controller.	Human–robot Interaction
Forest Party	Building on the hands–on understanding of the interaction between the robot and the map blocks with an object, children will role–play help find favorite foods.	Human–robot Interaction
What's the Time, Mr. Wolf?	This activity aims to introduce the use of the Forward Card and the Tap–to–Code Control mode. Children need to compare the two control modes during the game.	Events
Zig–zag Bridge	Children will explore the Turn Left and the Turn Right Cards. This activity sets challenges related to spatial thinking as children need to make decisions and recognize mTiny's right–left orientation.	Sequencing
Where's My Bamboo?	Children will explore the use of two kinds of triggering programming blocks: the Input Card and the Go! Card. Children can cause mTiny to execute a set of commands continuously by using them.	Events
Drawing with mTiny	Children will explore how mTiny can draw letters, numbers, words, shapes and lines in a variety of sizes.	Output
mTiny Tunes	Discover mTiny's musical ability using the Music Notes cards to create songs for mTiny.	Output

Activity Name	Description	Key Concept
Little Road Mender	This activity aims to introduce the Road-and-Wall Mechanism in A Journey to the Town. Children need to compare the two maps in the robot kit with a focus on the different effects of the border.	Conditionals
Ring Road Itinerary	The ring road is used as a representation of the concept of loops. Children need to understand the use of ring roads in daily life. By assembling different shapes of Road Map Blocks, children will recognize the pattern and make mTiny move through a circuit back to the departure point.	Loops
Little Bus Driver	In this activity, children will continue the ring road itinerary with mTiny in a more complex Ring Road Map. Children need to act as a driver to pick up passengers in different places multiple times.	Loops
Help Me, Please!	There are two kinds of the Role-playing Map Blocks in the robot kit: the Hospital Map Blocks—the A Passer-by Hits His Head Map Block, and the Police Station Map Blocks—the Thief Map Block. The departure point will determine which the role-play of mTiny will engage in. The robot should stop on the map block that corresponds with the scene.	Conditionals

Activity Name	Description	Key Concept
mTiny's Weekend	Children will help mTiny plan its weekend activities. Children will create a scenario and direct mTiny to visit the map blocks with an object.	Algorithm

Activity 01 Red Light, Green Light

Beginner's Level | 4~8 persons

The aim of this activity is to introduce how mTiny and the Tap Pen Controller function. Children will learn to use the Joystick on the Tap Pen Controller and explore one of the control modes of mTiny's movements.

The Joystick Control mode is fundamental to the understanding of robot locomotion and the representation of mTiny's movements in the Coding Cards. This activity is also a good game for improving children's focus.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand the relations between the robot and the Tap Pen Controller;

(2) Use the Joystick to make mTiny move or stop according to the instructions.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Listening to Your Teacher
Fine Motor Skills	Spatial Sense	Responding to Your Teacher
	Spatial Concepts	Self-management

Resources

For Child	For Educator

mTiny Toolkit × 1

mTiny Toolkit × 1

Red Light × 1

Green Light × 1

Note: Red Light and Green Light are not included in the package, and therefore, you need to prepare them by yourself.

Setting-up

You and children will need a reasonably spacious playing area for the robots to move.

The playing area should be defined by a designated starting line and finish line.

Starting Line

Finish Line

Educator-Led Instructions

Main Activity

1. Introduce mTiny toolkit.

Note: It is crucial that children understand the Tap Pen Controller is used to make mTiny move. The relationship between the robot and the Tap Pen Controller lays the basis for understanding the relations between the input device and the output device.

2. Instruct children to use the Joystick to make the robot move freely.

3. Explain the rules: “Today, let’s play Red Light, Green Light with mTiny. When you see the Red Light, you should make mTiny stand still; when you see Green Light, you should make mTiny move forward.”

(1) Have children line up their robots at the starting line. Make sure their robots face the teacher, who sits at the finish line.

(2) Children look at the teacher and decide whether to make mTiny stand still or move forward according to the lights.

Variations

You can also set challenges by:

1. Adding the Orange Light and the Forward Card. When the Orange Light is displayed, children should make mTiny move step by step by using the Tap-to-Code Control mode (i.e. use the Tap Pen Controller to tap the Forward Card).

2. Adding 1 Forward Card and 1 Turn Right Card (or 1 Turn Left Card) to each child. Children need to use Action Cards instead of the Joystick to make mTiny move back and return to the starting line.

Activity 02 Forest Party

Beginner's Level | 4~8 persons

Fairies and elves love forest parties! In this activity, children will be invited to have a role-playing adventure with mTiny. Children will help "transform" mTiny into another kind of "animal" by using a costume and a map block with an animal character. Children will match the animal robot and its favorite food. The activity helps children make sense of the hidden interactive effects within the map blocks with an object, as well as the interaction between the robot and the map blocks.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand the possible interaction between the robot and the map blocks;

(2) Use appropriate ways to trigger different interactive effects ofmTiny.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Listening to Your Teacher
Fine Motor Skills	One-to-one Correspondence	Responding to Your Teacher
	Comparison	
	Creative Storytelling	

Resources

For Child	

mTiny Toolkit × 1

Costume (Choose 1 from 3)

For Educator

Toby the Puppy× 2

Milo the Kitten × 1

Chicka the Chicken× 1

mTiny × 2

Lawn × 14

Meat × 2

Fish × 2

Corn × 2

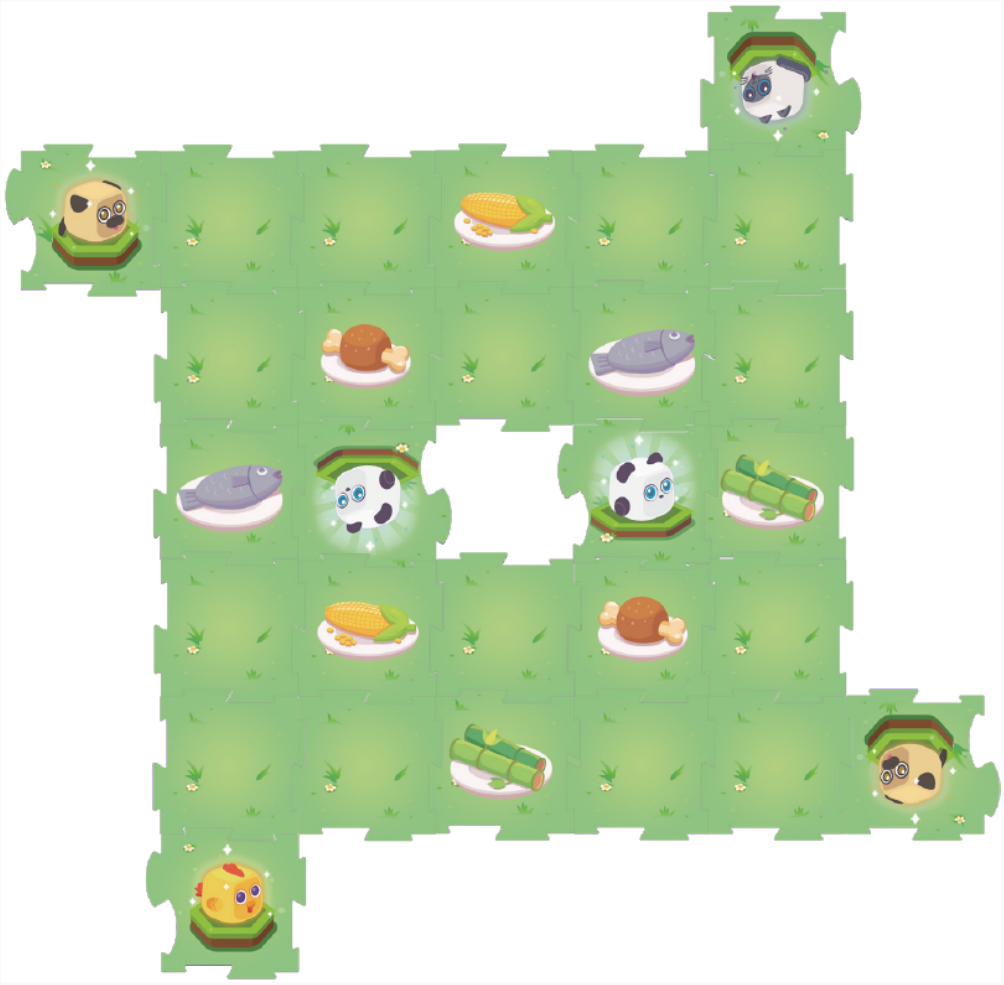
Bamboo × 2

Note:

- The example activity provided assumes that four children will participate in the game, therefore, four mTiny Robot Kits are necessary.
- Please note that the two mTiny Map Blocks are not necessary—they merely act as the reference for children who would like to compare the effects among mTiny, Toby the Puppy, Milo the Kitten, and Chicka the Chicken.

Setting-up

Please prepare and design the Forest Party Map. You may assemble the map blocks in the way shown below:



You can also add other map blocks to generate more interactive effects, for example:

Educator-Led Instructions

Main Activity

1. Introduce the three map blocks with a character and the attached costumes below:

2. Explain to the children: “Today we will hold a forest party with mTiny. Could you please help mTiny choose one costume for the party? Which animal do you think mTiny would

prefer to be?”

3. Instruct children to help mTiny dress up and to put the robot on the map block that corresponds with the costume: wait and see what happens.

> **Note:**
> Some children may need your assistance to put a costume on their robots.
> You can also encourage children to imagine and narrate stories on this forest party. Ask children to think about these questions:
>
> (1) Why, when and where was the forest party held?
> (2) Why did you transform mTiny into other kinds of animals?(2) Why did you transform mTiny into other kinds of animals?
> (3) What would happen at the forest party?

4. Instruct children to help Toby the Puppy/ Milo the Kitten/ Chicka the Chicken identify their favorite foods.

5. Hand out other map blocks with an object (or blocks and toys in the classroom), and have children reassemble and design the map blocks and continue their scenarios.

Activity 03 What's the Time, Mr. Wolf?

Beginner's Level | 4~8 persons

The aim of this activity is to introduce the use of mTiny and its two control modes—Joystick Control and Tap-to-Code. Children will explore how to make the robot move by using different control modes. Moving forward is the basic movement, which can attest to children's capability of distinguishing between the front and back of an object. This activity is also a good game for improving children's focus.

Intended Learning Outcomes

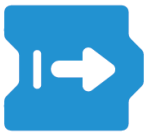
By the end of this activity, children will be able to:

(1) Understand the use of the Tap Pen Controller and the Coding Cards;

(2) Use appropriate coding tools to make mTiny move or stop according to instructions.

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Listening to Your Teacher
Fine Motor Skills	Memory	Responding to Your Teacher
	Spatial Awareness	Self-management

Resources

For Child			For Educator
mTiny Toolkit × 1	 Forward Card × 1		mTiny Toolkit × 1

Setting-up

You and children will need a reasonably spacious playing area for the robots to move.

The playing area should be defined by a designated starting line and finish line.

Starting Line

Finish Line

Educator-Led Instructions

Main Activity

1. Hand out the mTiny toolkit.

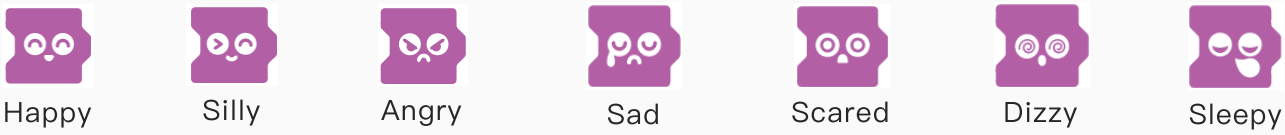
2. Introduce the Forward Card.

3. Explain the rules: “Today, let’s play What’s the Time, Mr. Wolf.”
    a. The teacher’s robot plays the role of Mr. (/Ms.) Wolf, standing at the finish line with its back to the children and their robots.
    b. Have children’s robots line up and stand at the starting line, facing Mr. Wolf.
    c. Children ask all together: “What’s the Time, Mr. Wolf?”
    d. Answer by calling out an o’clock time between 1 and 12.
    e. Children identify the number of the o’clock time and then make the robot move the required number of steps towards Mr. Wolf by tapping the Forward Card the required number of times.
    f. When children’s robots are getting close to the finish line, answer children’s calls: “12 o’clock!” and then direct Mr. Wolf the robot to turn around and “catch” children’s robots.
    g. When hearing “12 o’clock!”, children should then make their robots move back and return to the starting line by using the Joystick; otherwise, their robots would be “caught” by the teacher’s.

Variations

You can also set challenges by:

1. Adding Facial Expression Cards. Children can have mTiny make a face at Mr. Wolf after moving the required number of steps. In other words, children first tap the Forward Card the required number of times and then tap one of the seven Facial Expression Cards.



2. Adding Action Cards. Handing out 1 Forward Card and 1 Turn Right Card (or 1 Turn Left Card) to each child. Children need to use Action Cards to make mTiny move back and return to the starting line instead.

Activity 04 Zig-zag Bridge

Beginner's Level | 4~8 persons

Children will be invited to build a zig-zag bridge and find out what is special about its shape. Children will then use the Actions Cards to make mTiny turn right, turn left, and move forward. To decide when (and whether) to give "turn right" or "turn left" command when mTiny approaches a corner, children should recognize how the zig-zag bridge takes a left turn or right turn.

Intended Learning Outcomes

By the end of this activity, children will be able to:
(1) Understand the representation of the right and left from different points of view;
(2) Use the appropriate Action Cards to make mTiny turn right or left at the corner.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Self-reflection
Fine Motor Skills	Spatial Representation	Persistence and Resilience
	Orientation	

Resources

For Child				For Educator
mTiny Toolkit × 1	Forward Card × 1	Turn Right Card × 1	Turn Left Card × 1	Wooden Blocks Plenty

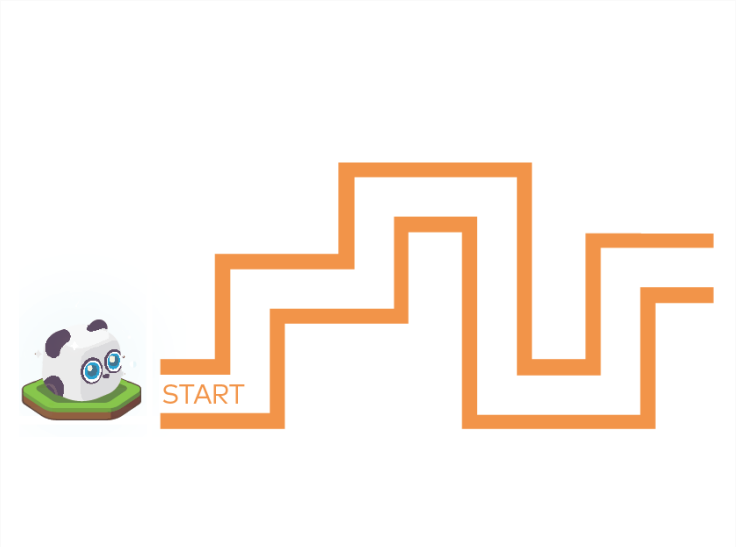
Note: You need to put wooden blocks on the two sides to set up the Zig-zag Bridge.

Setting-up

The Zig-zag Bridge can be set up in various shapes, for example:

The length of each straight part of the bridge is START recommended to be 28cm (or a multiple of 28cm), since mTiny moves 28cm each time when the Forward Card is tapped.

The width of the bridge could be slightly broader than that of mTiny.



Educator-Led Instructions

Main Activity

1. Introduce the Zig-zag Bridge and encourage children to observe and discuss the shape of the bridge.

2. Ask children: “How many turns does the bridge have? Imagine that you were a passer-by walking on the bridge, would you turn right or turn left when coming to these turns?”‘

3. Invite children to the game: “Can you please tell mTiny whether to turn right or turn left when it encounters these turns?”

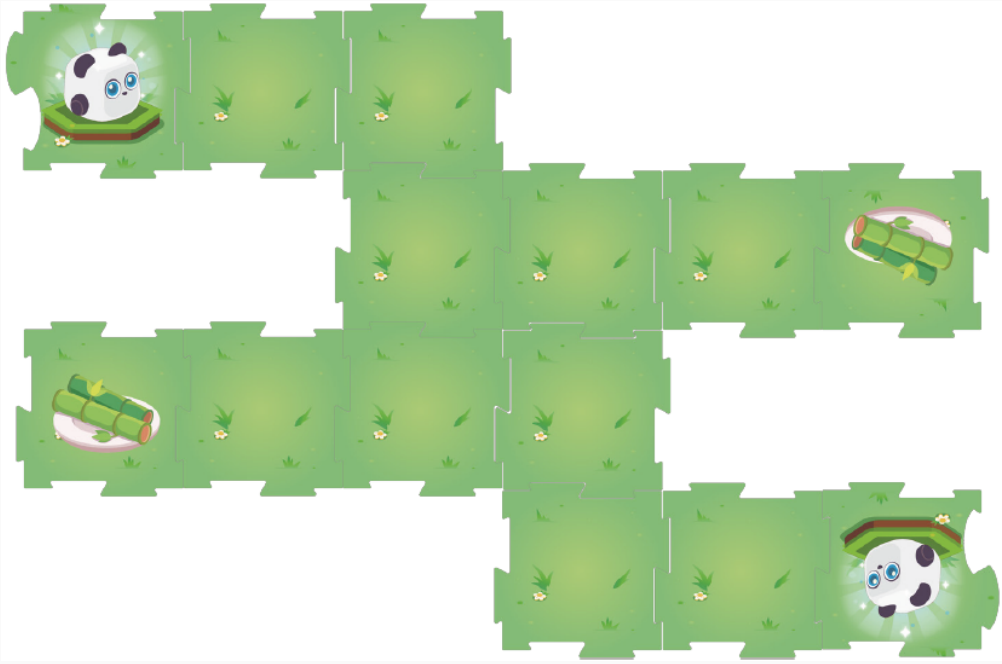
4. Introduce the three types of Action Cards.

Note: Rotate Action Cards by 90 degrees in the counterclockwise direction so that children can make sense of the representation of the arrow easily.

5. Instruct children to use different coding tools to direct mTiny's movements.
    a. Have children line up their robots one by one at the Starting Point.
    b. For the first time, children can use Joystick to operate the robot.
    c. For the second time, children should use Actions Cards to give commends by tapping the appropriate Action Cards.
    d. Children make the robot move one after another.

Variations

You can also set challenges on children's spatial scene abilities by inviting them to work in pairs and figure the point of view of other's right–left orientation.



Help assemble the above map, invite children to work in pairs and share the map blocks. Instruct children to direct their robots to the destination on the opposite side (either Bamboo Map Block or mTiny Map Block):

1. Children should observe and mirror the commands their partners have done, making their robots do the same actions; or

2. Child A calls out a command (“Turn right”, “Turn left”, or “Move forward”). When receiving the command, Child B should then pick up the corresponding Action Card and give it to Child A. Child A taps the Action Card to make the robot move and sees whether the card is a correct choice.

Activity 05 Where's My Bamboo?

Beginner's Level | 4~8 persons

The aim of this activity is to help introduce the use of the Input Card and the Go! Card, the two triggering tangible programming blocks in this robot kit. Children will explore how to make mTiny execute a set of the commends of Coding Cards continuously. Meanwhile, they need to identify the mathematical correlation between the number of Coding Cards and the number of used map blocks when they make decisions on coding.

Intended Learning Outcomes

By the end of this activity, children will be able to:
(1) Understand the concept of events and the use of triggering blocks;
(2) Execute a set of commands to make the robot take actions continuously;
(3) Identify the correlation between the number of the map blocks and that of the Action Cards.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	One-to-one Correspondence	Listening to Your Teacher
Gross Motor Skills	Decomposition	Responding to Your Teacher
Fine Motor Skills	Abstraction	Communication

Resources

For Child				
Input Card				Turn Left

× 1

Go! Card × 1

Forward Card × 1

Turn Right Card × 1

Card × 1

mTiny Toolkit × 1

Lawn × 4

mTiny × 1

Bamboo × 1

For Educator

Input Card × 1

Go! Card × 1

Forward Card × 1

Turn Right Card × 1

Turn Left Card × 1

mTiny Toolkit × 1

Lawn × 4

mTiny × 1

Bamboo × 1

Educator-Led Instructions

Main Activity

1. Hand out the map blocks and the Action Cards: each child should have 4 Lawn Map Blocks, 1 mTiny Map Block, 1 Bamboo Map Block, 4 Forward Cards, 4 Turn Right Cards, and 4 Turn Left Cards.

2. First, have children line up the five map blocks as shown below—the leftmost Lawn Map Block as the Starting Point and the rightmost Bamboo Map Block as the End Point.

3. Ask children: “How many steps should mTiny move from the Starting Point to the End Point? Please line up the appropriate number of Forward Cards to give your answer.”

4. Hand out mTiny Toolkits. Ask children to test their answers by commanding the robot’s movement through the Tap-to-Code Control mode.

Note: Children line up four Forward Cards and then tap each card for once time (rather than tap one for several times). It is necessary to be aware that they should tap one Coding Card for once time while using the Tap Pen Controller to tap the cards.

5. Introduce the Input Card and the Go! Card.

Note: The Input Card and Go! Card are triggering programming blocks. When the Input Card is tapped, the robot stands still (rather than executes the commend immediately) to wait for and remember what it needs to do (execute a set of command) next.

6. Hand out the Input Cards and the Go! Cards. Instruct children to execute them with the Forward Cards.

7. Invite children to design and assemble the route from the mTiny Map Block to the Bamboo Map Block. Explain the rule:
   a. The mTiny Map Block should be the Starting Point while the Bamboo Map Block should be the End Point this time.
   b. The shape of the route is open to design.
   c. Children should use the Input Card, the Action Cards, and the Go! Card together when they implement the set of commends.

8. You can show children some examples to inspire their ideas (please see the Attachment).

Variations

1. You can also prioritize the route-planning session in the activity:

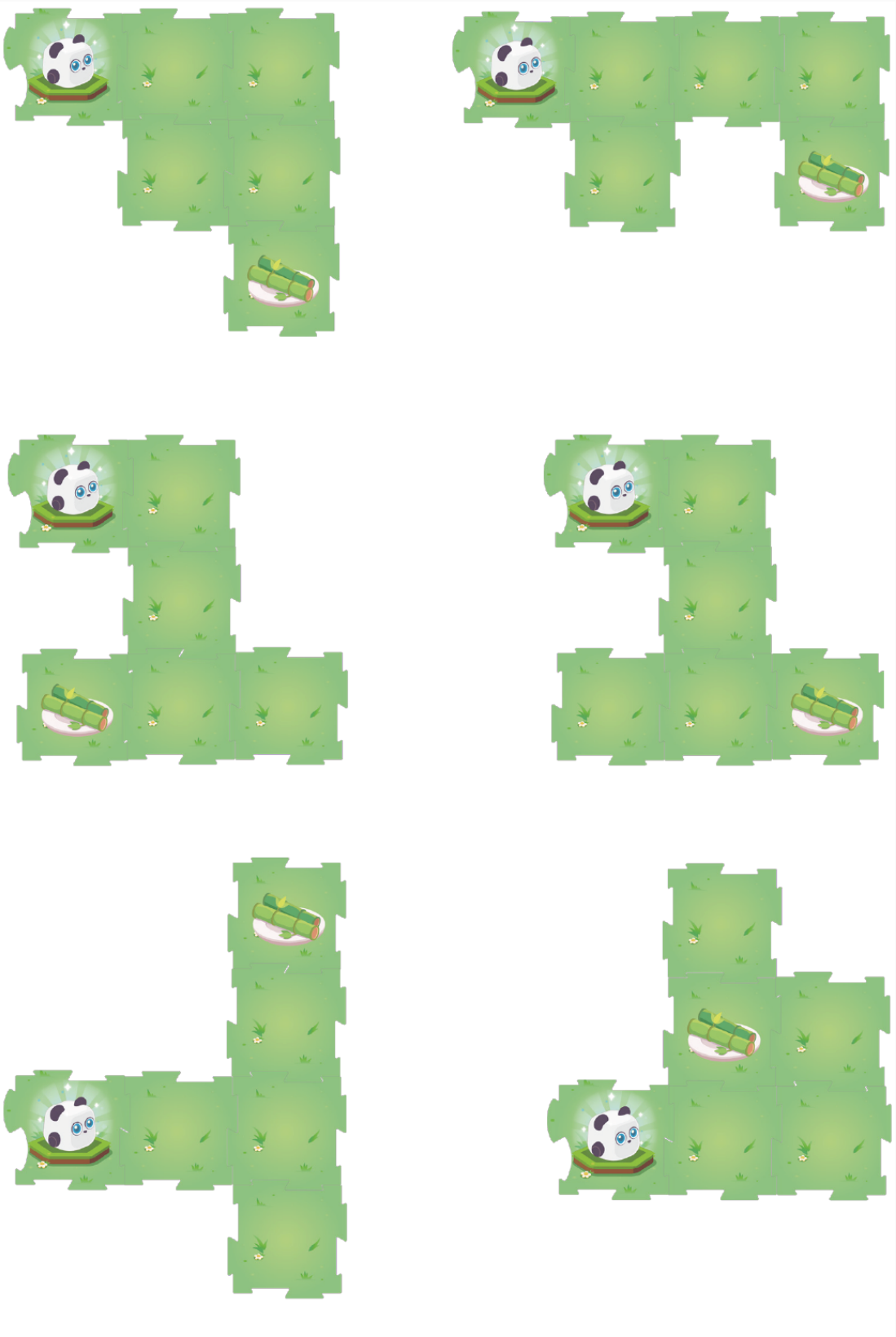
   a. Give children enough Lawn Map Blocks to build the road that bridges the Starting Point and the End Point.
   b. Ask children first to draw the arrows to indicate all the possible routes, and then to use appropriate Actions Cards to examine their planning.

c. Give children enough Action Cards. However, if you want to set challenges, you can require children to consider and use the limited number of Action Cards while planning the route.

2. For advanced learners, you can offer them Repeat Cards and encourage them to replace the repeatedly-used commands of Action Cards with a Repeat Card. The number of Repeat Cards given to children depends on children's mathematical knowledge.

Attachment

Here below are some examples of the assembling:



Activity 06 Drawing with mTiny

Beginner's Level | 4~8 persons

In this activity, children will learn how to use the markers and the Keyboard Activity Card to have mTiny draw letters, numbers and words. Once children learn how to draw these characters, they will explore how the Shapes and Lines coding cards can be combined with other coding cards to create complex programs.

Intended Learning Outcomes

By the end of this activity, children will be able to:
(1) Execute a set of commands to make mTiny draw letters, numbers and/or a word;
(2) Use the appropriate Shape and Line cards to make mTiny draw using the markers.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Listening to Your Teacher
Fine Motor Skills	One-to-one Correspondence	Independence
	Decision Making	Confidence
	Shape Recognition	

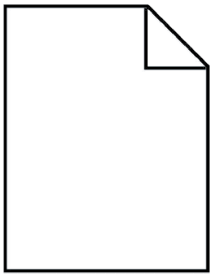
Resources

For Child	
mTiny Toolkit × 1	

Marker
× 1

Shape Card
× 1

Keyboard
Activity Card x 1



Drawing
Paper x 1

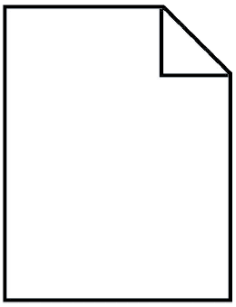
For Educator

mTiny Toolkit ×
1

Marker
× 1

Shape Card
× 1

Keyboard
Activity Card x 1



Drawing
Paper x 1

Setting-up

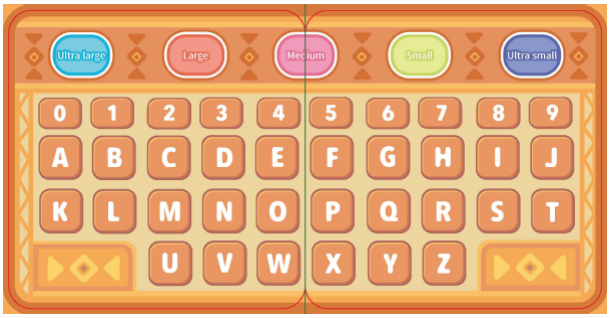
You and children will need a playing area covered in paper for the robots to draw. Instruct children to keep mTiny on the paper when a marker is installed so that mTiny does not draw on other surfaces.

Educator-Led Instructions

Main Activity

1. Demonstrate how to install a marker in mTiny.

2. Introduce the Keyboard Activity Card. Instruct children to draw letters and numbers as they are called out.



3. Instruct children to draw a shape or line using a selected Shape & Line coding card.

4. Demonstrate how to use the Shape & Line coding cards with the Input and Go! cards to make mTiny draw multiple shapes.

Variations

To build on this activity, children can use the size icons on the Keyboard Activity Card to adjust the size of mTiny's drawings. Also, children can make mTiny draw words by combining the Input and Go! cards with the Keyboard Activity Card. You can have children make mTiny draw sight words or their name.

To store the sequence, tape the Input card, then tap the letters on the Keyboard Activity Card. Then use the Go! card to execute the commands and see mTiny draw the word.

0 1 2 3 4 5 6 7 8 9
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z

Activity 07 mTiny Tunes

Beginner's Level | 4~8 persons

This activity allows children to explore music by making mTiny play notes and melodies using the Music Notes coding cards. Children will make mTiny execute a sequence of coding cards that includes Music Notes.

Intended Learning Outcomes

By the end of this activity, children will be able to:
(1) Execute a set of commands that include the Music Notes coding cards;
(2) Understand how audio can be used to provide feedback.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Focus and Concentration	Responding to Your Teacher
Fine Motor Skills	One-to-one Correspondence	Independence
	Sewuencing	Confidence

Resources

For Child

mTiny Toolkit × 1

Music Note Cards × 7

Piano Activity Card x 1

For Educator

mTiny Toolkit × 1

Music Note Cards × 7

Piano Activity Card x 1

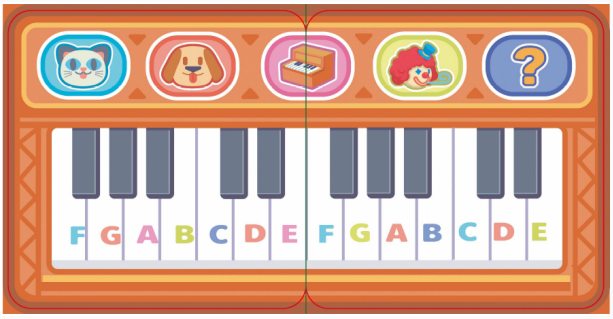
Educator-Led Instructions

Main Activity

1. Demonstrate how to adjust the volume of mTiny and instruct children to set the volume to an appropriate level.

2. Introduce the Piano Activity Card. Demonstrate how to play a sound.

2. Introduce the Keyboard Activity Card. Instruct children to draw letters and numbers as they are called out.



3. Tell children that they will play a sound on the piano when you point to them. Take turns pointing to different children and have them play a sound.

4. Introduce the Music Note Cards and have children create a set of commands to play a song.

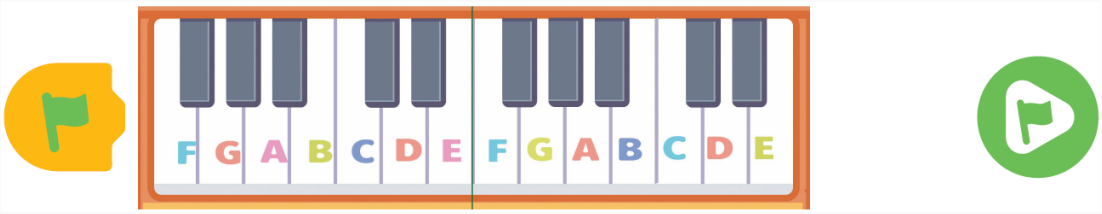
Note: The following example is code that could be written to create a song:

5. Children can show mTiny playing their song command while the other children listen to mTiny perform.

Variations

You can challenge children to incorporate other cards (e.g., Facial Expression Cards or Action Cards) to enhance mTiny's musical performance. Or, children can use the Piano Activity Card to create a song for mTiny to play.

To store the sequence, tap the Input card, then tape the piano keys on the Piano Activity Card. Then use the Go! card to execute the commands and listen to mTiny play the song.



Activity 01 Little Road Mender

Intermediate Level | 4~8 persons

The aim of this activity is to introduce the Map A Journey to the Town. Unlike the Map mTiny and His Friends, this map involves a mechanism of roads and walls. mTiny can walk freely on any road but a wall will block its way. When it hits a wall, it will stop moving. This Road-and-Wall Mechanism requires children to check and adjust the way they assemble Road Map Blocks.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand the Road-and-Wall Mechanism in A Journey to the Town;

(2) Distinguish between the four types of Road Map Blocks in terms of the shape and the ways of assembling.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Shape Recognition	Contextualizing Needs
Gross Motor Skills	Pattern Recognition	Empathy
Fine Motor Skills	Comparison	Communication
	Route Planning	

Resources

For Child				
Input Card × 1	Go! Card × 1	Forward Card × 4	Turn Right Card × 4	Turn Left Card × 4

mTiny Toolkit × 1

Crossroad × 1

Intersection × 2

Road Corner × 6

Straight Road × 3

For Educator

Input Card × 1

Go! Card × 1

Forward Card × 4

Turn Right Card × 4

Turn Left Card × 4

mTiny Toolkit × 1

Crossroad × 1

Intersection × 2

Road Corner × 6

Straight Road × 3

Educator-Led Instructions

Introduction

1. Introduce the four types of Roads:

Crossroad

Intersection

Road Corner

Straight Road

2. Encourage children to discuss the shapes and possible connection ways.

Main Activity

1. Hand out copies of Interrupted Roads Map as shown below:

2. Hand out the Map Blocks: each child should have 1 Crossroad Map Block, 2 Three-Way Intersection Map Blocks, 6 Road Corner Map Blocks, and 3 Straight Road Map Blocks.

3. Have children assemble the Road Map Blocks as Interrupted Roads Map shows.

4. Ask children to think about the following questions, for example:
   (1) Why the roads on Interrupted Roads Map are interrupted? (or “Why do you think this ‘Roads Map' is named in this way?”)
   (2) Could mTiny be able to move from the Start Point to the End Point? Why?

Note: While discussing Interrupted Roads Map with children, invite them to have mTiny move on Interrupted Roads Map in the first place. Encourage children to test and observe the result (esp. while mTiny hits a wall) and then to give their answers.

5. Instruct children to draw a possible route connecting the Start and the End, and then to find out all the interrupted positions that hinder them.

6. Children act as road menders and rotate the map blocks at these positions to get the roads interconnected in all directions.

An Example of Interconnected Roads

7. Hand out mTiny Toolkits, Coding Cards, and blocks (or flag toys): each child should have 4 Forward Cards, 4 Turn Right Cards, 4 Turn Left Cards, 1 Input Card, and 1 Go! Card.

8. Instruct children to make mTiny Robot move from the Start to the End on the map blocks, and examine whether the roads are interconnected or not.

Recap

1. Summarize the features of different types of Road Map Blocks and Road-and-Wall Mechanism.
2. Encourage children to work together to assemble a more complex Road Map.

> **Note:** Instruct children to work in pairs (or group of three to four) to share their twelve Road Map Blocks. Encourage them to think about and create a special shape of Interconnected Roads Map.

Attachment

Here below is the printable Interrupted Roads Map:

END
START

Activity 02 Ring Road Itinerary

Intermediate Level 4~8 persons

The aim of this activity is to introduce the concept of loops. A mockup of the ring road, as the representation of loops, helps embody this abstract concept and its effects through making mTiny move on the ring roads. First, children will assemble different types of Road Map Blocks to build various kinds of ring roads. Children will then learn to use the Repeat Cards to make mTiny move in circles.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand that a loop is meant by doing the same things repeatedly and give real-life examples of loops;

(2) Understand the use of Repeat Cards for repeating one action (or sequence) for the assigned number of times;

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Shape Recognition	Contextualizing Needs
Gross Motor Skills	Pattern Recognition	Empathy
Fine Motor Skills	Comparison	Communication
	Analysis	

Resources

For Child

Input Card × 1	Go! Card × 1	Forward Card × 4	Turn Right Card × 4	Turn Left Card × 4
×2 Repeat Card × 2	×3 Repeat Card × 1	×4 Repeat Card × 2	×5 Repeat Card × 1	
mTiny Toolkit × 1	Crossroad × 1	Intersection × 2	Road Corner × 6	Straight Road × 3

For Educator

Input Card × 1	Go! Card × 1	Forward Card × 4	Turn Right Card × 4	Turn Left Card × 4
×2 Repeat Card × 2	×3 Repeat Card × 1	×4 Repeat Card × 2	×5 Repeat Card × 1	
mTiny Toolkit × 1	Crossroad × 1	Intersection × 2	Road Corner × 6	Straight Road × 3

Educator-Led Instructions

Introduction

1. Introduce the ring road by showing some photos.

Note: The ring road is a series of connected roads encircling one location. In daily life, ring roads help reduce traffic volumes, in particular in the metropolitan areas, such as Hong Kong, Shanghai, and Tokyo. Moreover, ring roads also encircle the mountainous areas in island countries, such as Iceland and Singapore.

2. Ask children if there is any ring road they have seen before and discuss the use of ring roads.

Main Activity

1. Hand out the Map Blocks: each child should have 1 Crossroad Map Block, 2 Three-Way Intersection Map Blocks, 3 Straight Road Map Blocks, and 6 Road Corner Map Blocks. Have children assemble Road Map Blocks to build a ring road.

2. Invite children to share their ring roads and discuss the shapes of ring roads.

Note:
You can ask children to think about the following questions, for example:
(1) How many rings does your ring road have?
(2) How many and what types of Road Map Blocks have you used?
(3) How do different types of Road Map Blocks connect with each other?
(4) Could you give a name for your ring road? Why do you name it in this way? How do you get the idea?

3. and out mTiny Toolkits, Coding Cards, and blocks (or flag toys): each child should have 4 Forward Cards, 4 Turn Right Cards, 4 Turn Left Cards, (and the three types of Repeat Cards for advanced learners).

4. Instruct children to make mTiny move on their Ring Roads Map Blocks by using Coding Cards.

5. Ask them to observe and think about the following questions:
   (1) How many times does mTiny turn around on your ring roads?
   (2) Does mTiny turn right or turn left when it moves on the Road Corner?

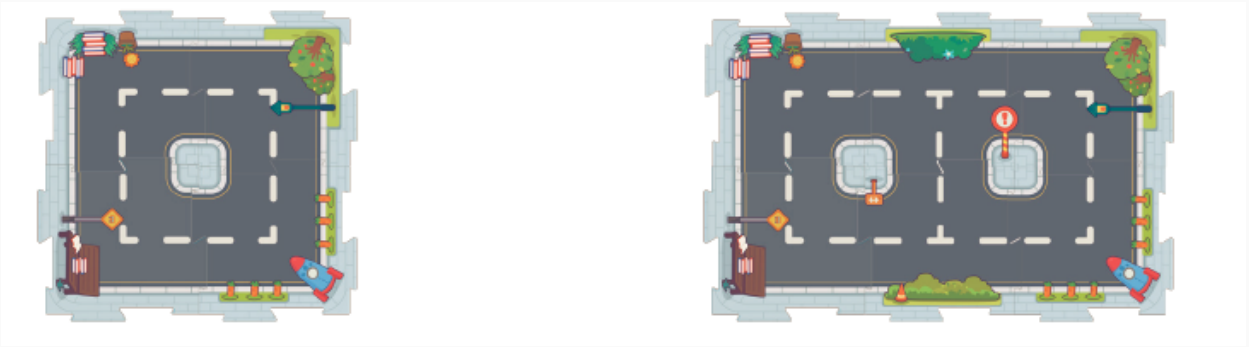
Recap

Have children discuss and comment on each other's ring roads.

Attachment

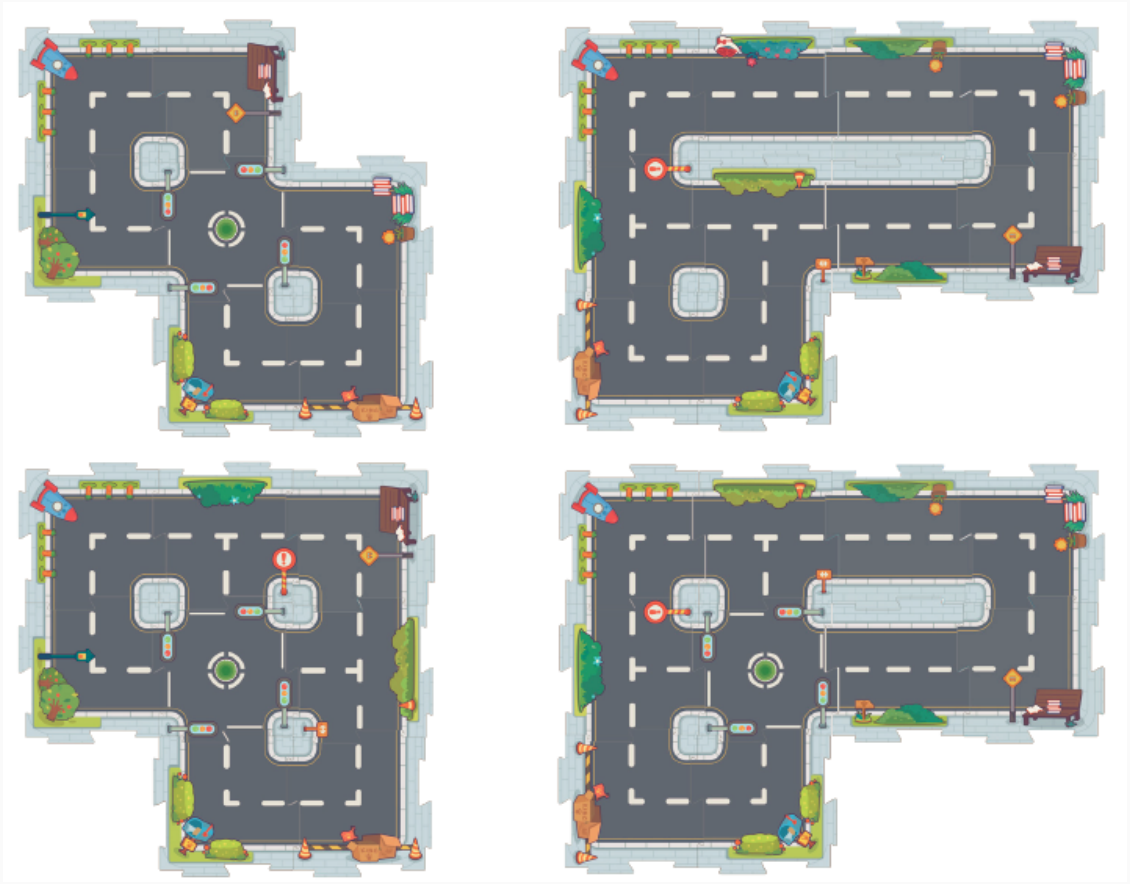
Here below are some examples of ring roads:

A simple ring road can be made up of four pieces of Road Corner Map Blocks:



Adding another two pieces of Three-Way Intersection Map Blocks, a road with two rings can be created.

There are various ways to utilize and assemble different types of Road Map Blocks to create different kinds of ring roads.



Activity 03 Little Bus Driver

Intermediate Level 4~8 persons

Children will continue their ring road itinerary with mTiny. This time, however, they will play the role of the bus driver and direct Bus mTiny to different places. This activity will also introduce some new road map blocks which have some hidden interactive effects. Children will utilize route planning and reasoning abilities to figure out the best route.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand the use of the Repeat Cards which can repeat one action (or sequence) for the assigned number of times;

(2) Understand the benefits of using Repeat Cards during coding.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	Decomposition	Contextualizing Needs
Gross Motor Skills	Analysis	Communication
Fine Motor Skills	Spatial Reasoning	Collaboration
	Route Planning	Leadership

Resources

For Child				
Input Card × 1	Go! Card × 1	Forward Card × 4	Turn Right Card × 4	Turn Left Card × 4

mTiny Toolkit × 1

×2 Repeat Card × 2

×3 Repeat Card × 2

×4 Repeat Card × 2

×5 Repeat Card × 2

For Educator

(Example Map 1 for Advanced Learners)

Crossroad × 2

Intersection × 6

Road Corner × 6

Straight Road × 5

Road with Scenes × 5

(Example Map 2 for Intermediate Learner)

Crossroad × 1

Intersection × 1

Road Corner × 6

Straight Road × 5

Road with Scenes × 5

*** Scene Cards:** The selected scene cards should be the same as Road with Scenes Map Blocks. There are five Road with Scenes Map Blocks in the two example map

** Four mTiny Robot Kits are needed to assemble the two maps shown below.

Setting-up

Educator-Led Instructions

Introduction

1. Introduce the following road map blocks with additional interactive effects:

2. Have children discuss the above map blocks, for example:

   (1) What do the characters do in the pictures?

   (2) Can you create a scenario based on some of these pictures? Please work in pair to develop a story for the above pictures.

Main Activity

1. Divide children into groups of two to four.

2. Explain the rule: “You are now a bus driver and need to pick up passengers at different steps.”

3. Have each child draw one scene cards at a time and do it twice:

   (1) Shuffle the scene cards beforehand and then ask one child from one group to draw one card at random and remember the scene.

   (2) The child should then put the scene card back and ask one of his or her peers from the same group to draw the next one.

   (3) Children should also count the number of times that each scene card has been drawn.

   (4) Remember to shuffle the scene cards whenever a child is going to draw one.

> **Note:** You can give children some stickers to record the number of times when a scene card is drawn. Children can paste a sticker on the Map Blocks that correspond with the scenes.

4. Children need to make Bus mTiny depart from the Starting Point and pass through the scenes on the map blocks and then back to the Starting Point.

5. Each group should direct mTiny Bus to pass through the scenes in order.

Recap

Discuss the use of Repeat Cards with children, ask them to think about what are the benefits of using Repeat Cards.

Attachment

Scene Cards (You can print and cut them out for the activity):

Activity 04 Help Me, Please!

Intermediate Level 4~8 persons

This is a role-playing activity in which children need to judge whether mTiny the Nurse and mTiny the Policeman should stop on the map blocks to fulfill their duties. If the robot departs from the Hospital Map Blocks, then it should play the role of the nurse and help the injured passer-by; if it departs from the Police Station Map Blocks, it should play the role of the policeman to catch the thief.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Understand the concept of conditionals by matching the role and the scene;

(2) Plan the appropriate route between the two corresponding map blocks;

(3) Understand the roles and duties of different careers.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	One-to-one Correspondence	Contextualizing Needs
Gross Motor Skills	Decomposition	Empathy
Fine Motor Skills	Abstraction	Communication
	Comparison	Leadership

Resources

For Child

Input Card × 1

Go! Card × 1

Forward Card × 4

Turn Right Card × 4

Turn Left Card × 4

mTiny Toolkit × 1

×2 Repeat Card × 2

×3 Repeat Card × 2

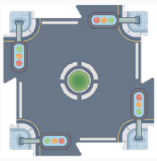
×4 Repeat Card × 2

×5 Repeat Card × 2

For Educator

Hospital × 1

Police Station × 1



Crossroad × 2

Intersection × 6

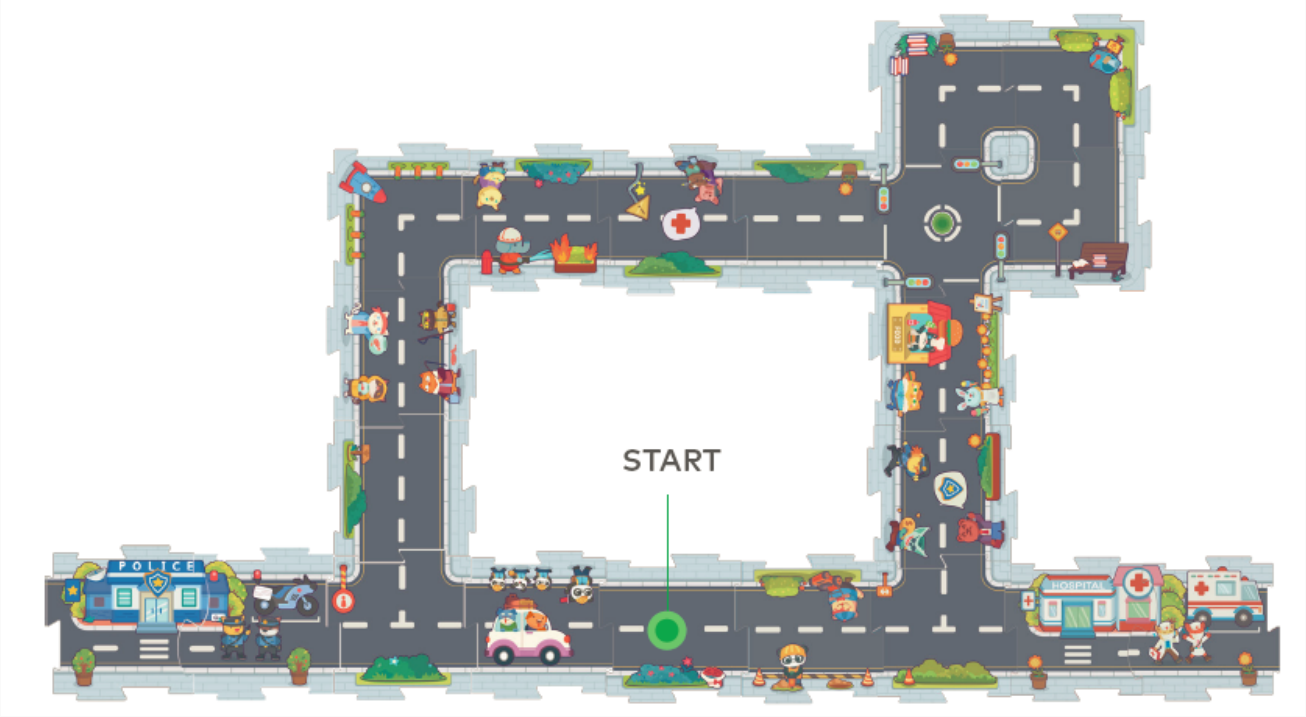
Road Corner × 6

Straight Road × 5

Road with Scenes × 5

Setting-up

Prepare and assemble the map blocks beforehand. With regard to the Starting Point, you can decide it with your children during the game.



Educator-Led Instructions

Introduction

1. Introduce the following pairs of Role-playing Map Blocks:

Hospital — Help! Someone hits his head!

Police Station — Help! Catch the thief!

2. Have children discuss the roles of the characters appeared in the map blocks.

Main Activity

1. Introduce the topic of the scenario: “Today, mTiny will act as the nurse or the policeman, and you need to help direct the way to where it could help.”

2. Explain the rule: “However, whether mTiny plays the role of the nurse or the policeman depends upon its Starting Point—whether mTiny departs from Hospital Map blocks or Police Station Map blocks.”

3. Instruct children to plan the route:

(1) Children select either the Hospital Map blocks or the Police Station Map blocks as the Starting Point;

(2) According to mTiny's role, children then write code to give commands.

(3) Instruct children to think about which map block with scene should be the End Point while planning the route and making the decision.

Note:

The concept of conditionals is embodied in two ways during this activity:

(1) The separated pair of role-playing map blocks should be the start and the end.

(2) There are other map blocks with scenes in the route, and children need to judge whether it is the right one that corresponds with mTiny's role.

4. Encourage children to create another scenario on other mTiny's roles which may match the situation appeared in the below map blocks (e.g. mTiny the Fireman).

Recap

1. Have children share their scenarios with peers and teachers.
2. Summarize the concept of conditionals in the context of the roleplaying.

Activity 01 mTiny's Weekend

Advanced Level 4~8 persons

Children will be invited to help mTiny plan its weekend activities. Children need to create a scenario in the first place and assemble different kinds of map blocks with an object to create mTiny's activity route. Children will make mTiny move on the map blocks to tell a story about what mTiny would do on weekends. Children will also be encouraged to draw a pictorial activity log.

Intended Learning Outcomes

By the end of this activity, children will be able to:

(1) Describe mTiny's weekend activities according to the map blocks;

(2) Assemble map blocks in order based on the scenario of the weekend plan;

(3) Use appropriate Coding Cards to make mTiny move following the route.

Key Competencies

Physical	Cognitive	Socio-emotional
Hand-eye Coordination	One-to-one Correspondence	Contextualizing Needs
Gross Motor Skills	Decomposition	Empathy
Fine Motor Skills	Abstraction	Communication
	Comparison	Leadership

Resources

For Child				
Input Card	Go! Card	Forward Card	Turn Right	Turn Left

× 1 | × 1 | × 4 | Card × 4 | Card × 4

mTiny Toolkit × 1

×2 Repeat Card × 2

×3 Repeat Card × 2

×4 Repeat Card × 2

Lawn × 7

Book × 1

Bathtub × 1

Bed × 1

Bamboo × 1

Cake × 1

Carousel × 1

Football × 1

For Educator

Input Card × 1

Go! Card × 1

Forward Card × 4

Turn Right Card × 4

Turn Left Card × 4

mTiny Toolkit × 1

×2 Repeat Card × 2

×3 Repeat Card × 2

×4 Repeat Card × 2

Educator–Led Instructions

Introduction

1. Ask children: “What do you usually do at the weekend?”

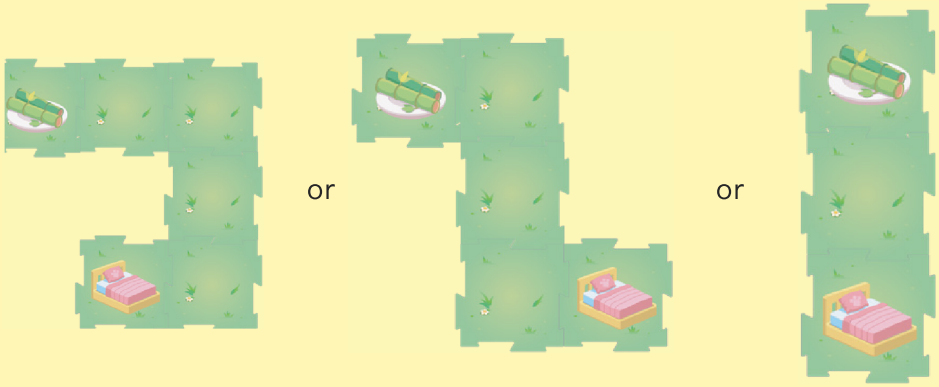
2. Introduce the map blocks below:

3. Instruct children to recognize and describe the pictures of the map blocks that may be related to their weekend activities (or their favorite or preferred one).

Main Activity

1. Invite children to help plan mTiny's weekend activities

Note: You can give an example—"If I were mTiny, I would like to eat some bamboos and then take a nap at home." (Show and connect the map blocks.)



2. Instruct children to choose at least three map blocks with an object in order to create a scenario (or a story) about mTiny's possible weekend plan.

Note: Children can choose three from the map blocks below:

3. Explain the rules and instruct children to implement their scenarios:

   (1) The map block with an object should NOT be connected directly to another block with an object, no matter they are put together horizontally or vertically.

Note:

Right

Wrong

(2) There must be at least one Lawn Map Block in between the map blocks with an object.

(3) Children can decide one of the Lawn Map Blocks as the Starting Point.

(4) Children should make mTiny move across the three map blocks with an object in sequence, following the planned weekend activity route.

Recap

Encourage children to imagine and talk about mTiny's weekend experience.

Note: You can ask questions, for example: "What did you play with mTiny at the weekend?" "Did mTiny (and you) enjoy the weekend? Why?"

Attachment

Here below are some sample scenarios of mTiny's possible weekend activities:

First Activity

Second Activity

First Activity

Second Activity

Third Activity

Second Activity

Quick Start Guide & Safety Instructions

EN–Quick Start Guide

FR–Guide de démarrage rapide

ES–Guía de inicio rápido

PT–Guia de Início Rápido

BG – Бързи инструкции

RU–Руководство по началу работы

IT–Guida rapida

KR–빠른 시작 가이드

TC–快速使用指南

NL–Snelstartgids

EN–Safety Instructions

FR–Consignes de sécurité

ES–Instrucciones de seguridad

PT–Instruções de segurança

DE–Sicherheitsanweisungen

RU–Инструкции по технике безопасности

IT–Istruzioni di sicurezza

KR–안전수칙

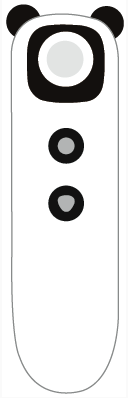
TC–安全使用說明書

NL–Veiligheidsinstructies

EN-Quick Start Guide

List of items

mTiny Robot



Tap pen controller

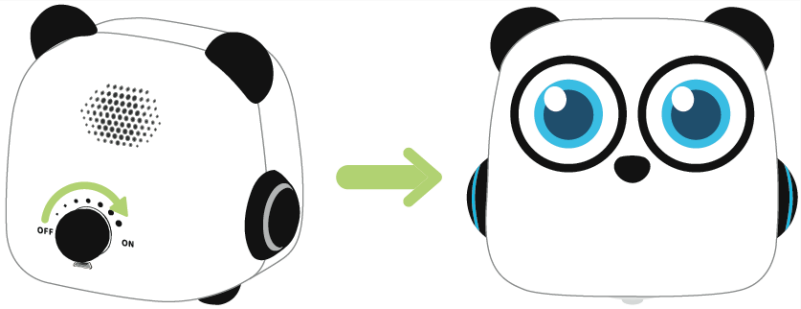
USB cable

Flagpole

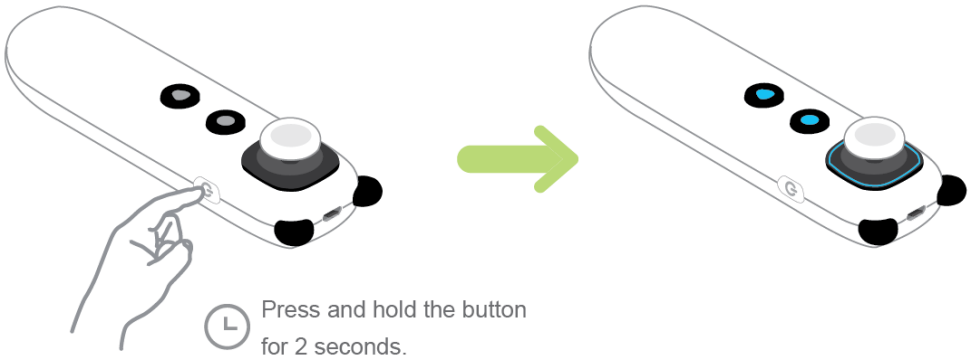
Startup

1. To power on mTiny, turn the knob clockwise until you hear a click sound.

> **Note:** After the robot has started, you can rotate the knob to adjust the volume.



2. Press and hold the power button for 2 seconds to power on the tap pen controller.

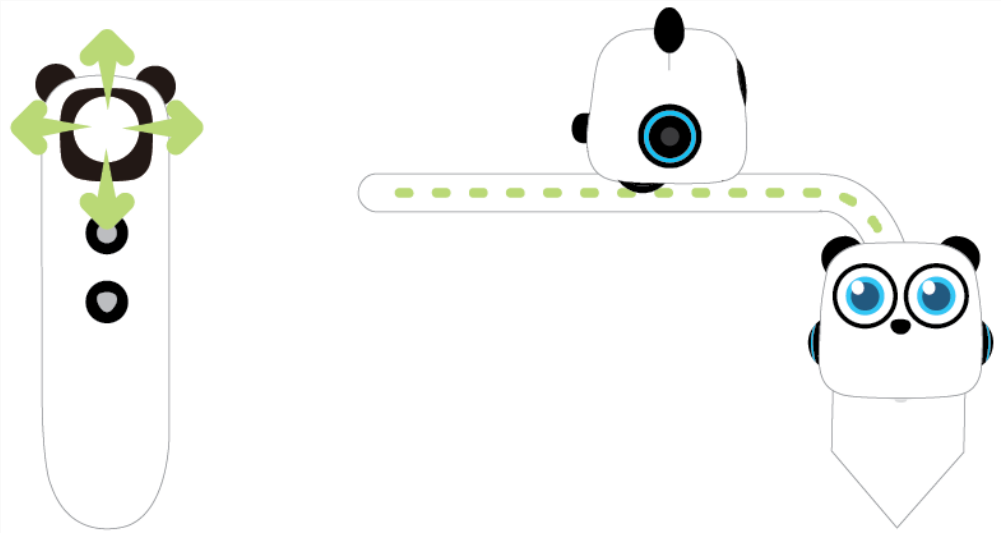


Note: Press and hold the power button (about 2 seconds) until all indicator lights turn off to power off the tap pen controller.

Instructions for use

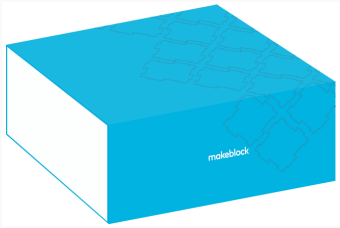
Joystick control

Push the joystick in different directions to move mTiny.



Use maps and cards to create more fun

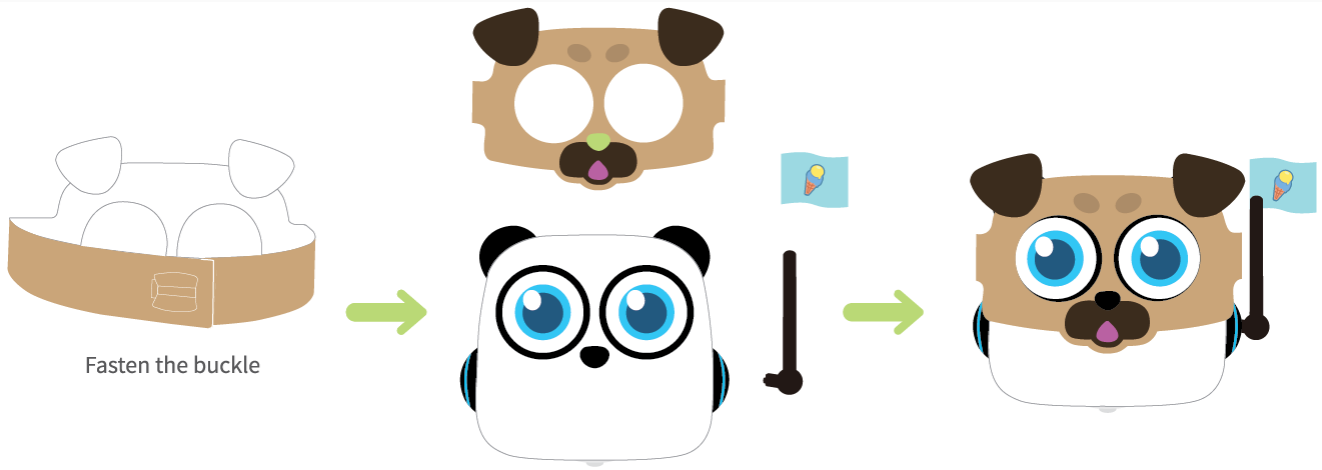
mTiny can interact with maps and cards, check out the storybook "mTiny and His Friends" and game cards in the map pack to play with him!



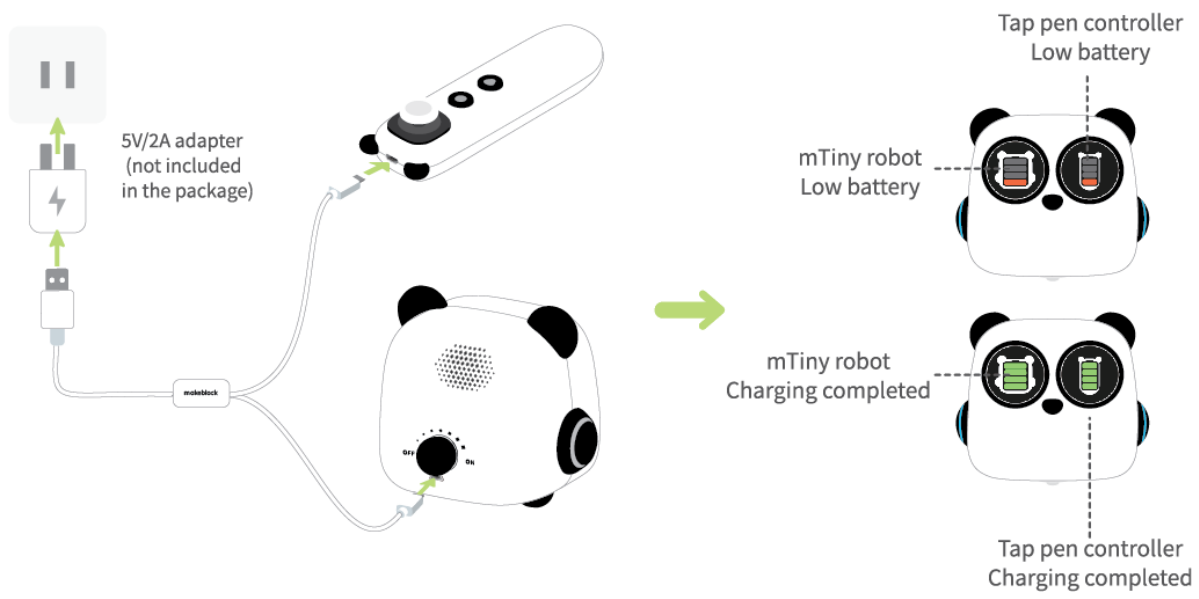
Map pack

Decorate mTiny

Flags + masks



Charging

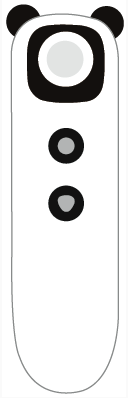


Note: Do not allow children to charge the product unless an adult is present.

FR-Guide de démarrage rapide

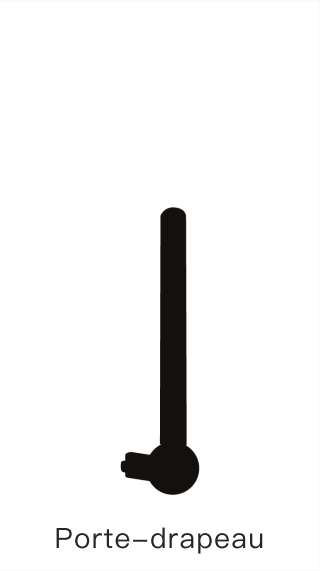
Liste des éléments

Robot mTiny



Stylet de commande

Câble USB

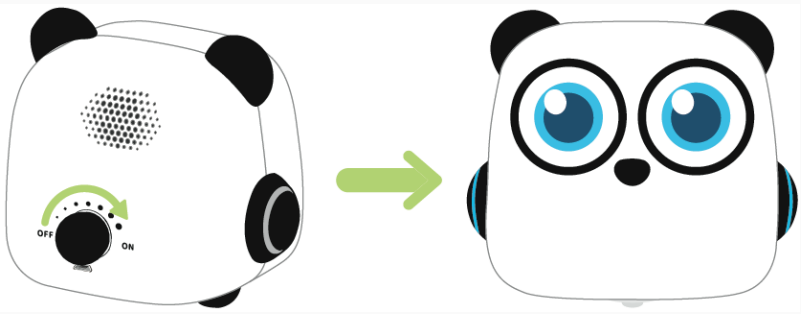


Porte-drapeau

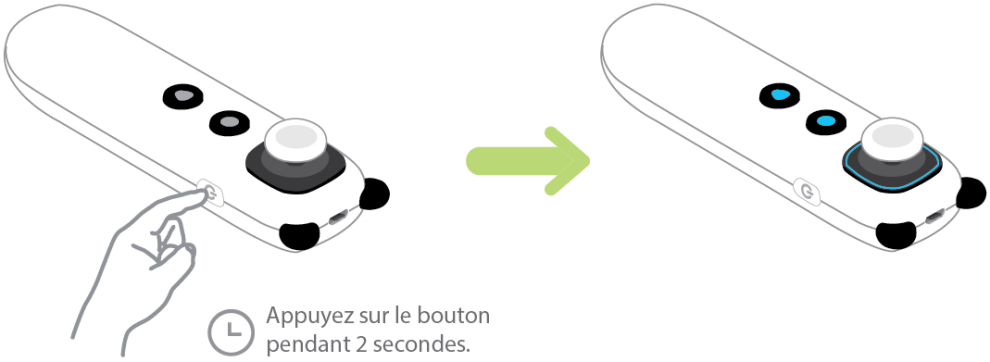
Démarrage

1. Pour allumer mTiny, tournez le bouton dans les sens des aiguilles d'une montre jusqu'à entendre un clic.

> **Remarque:** Une fois le robot démarré, vous pouvez tourner le bouton pour régler le volume.



2. Appuyez sur le bouton d'alimentation pendant 2 secondes pour allumer le stylet de commande.

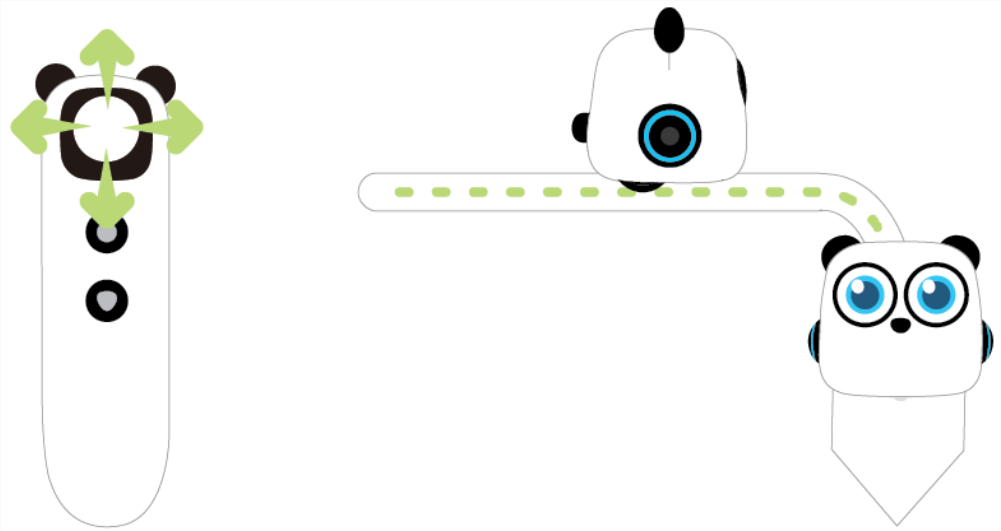


Remarque: Appuyez sur le bouton d'alimentation pendant 2 secondes jusqu'à ce que tous les voyants lumineux s'éteignent pour éteindre le stylet de commande.

Mode d'emploi

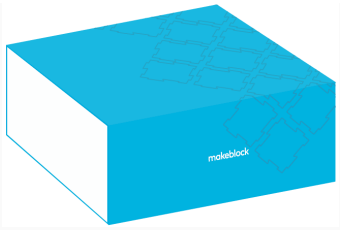
Manette

Déplacez le joystick de la manette dans diérentes directions pour déplacer mTiny.



Utilisez des plans et des cartes pour une expérience encore plus divertissante

mTiny peut interagir avec des plans et des cartes, Consultez le livre d'histoires «mTiny et ses amis» et le jeu de cartes dans l'extension plan pour jouer avec lui !



Extension plan

Masques

Cartes thématiques

Cartes de codage

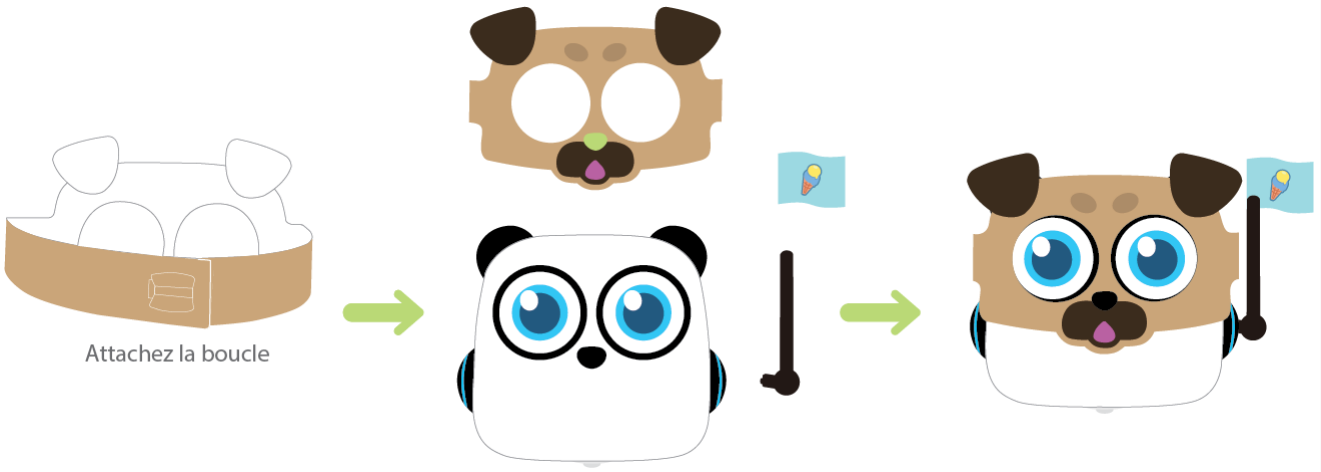
Cartes d'activité

Jeu de cartes

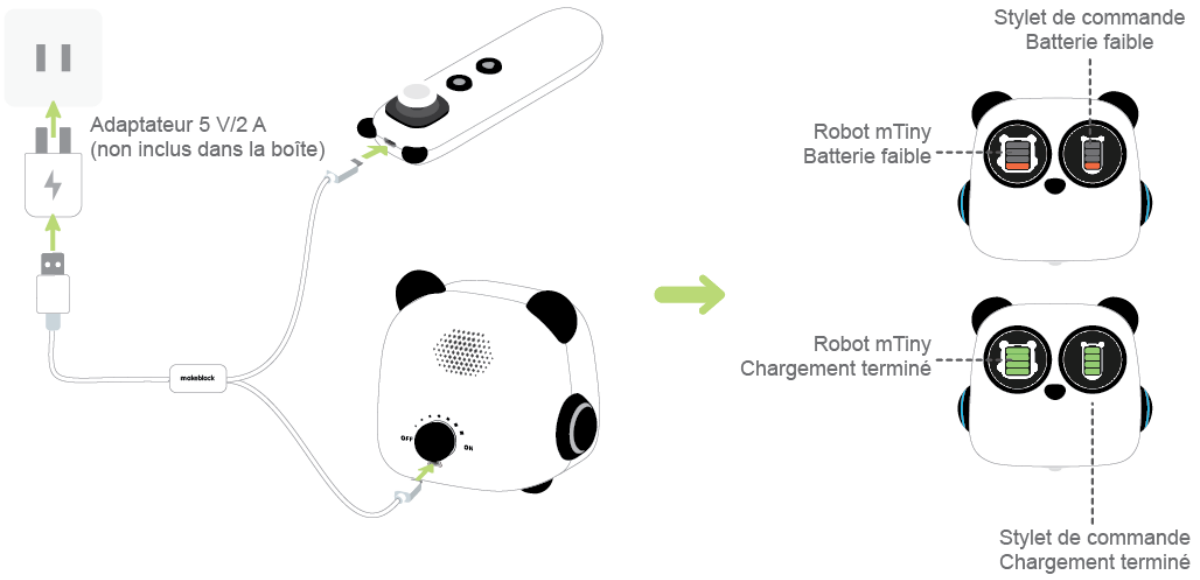
Drapeaux

Décorez mTiny

Drapeaux + masques



Chargement

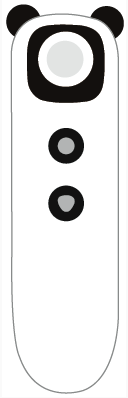


Remarque: Ne laissez pas les enfants recharger le produit sans de la présence d'un adulte.

ES-Guía de inicio rápido

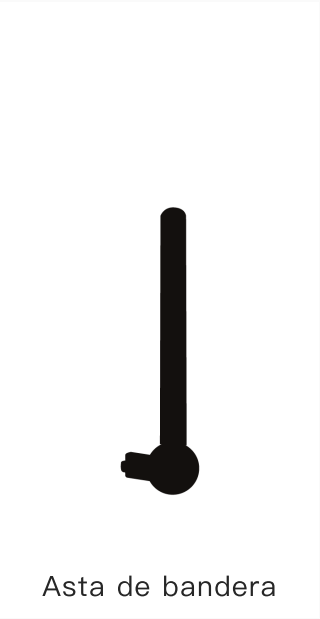
Lista de artículos

Robot mTiny



Lápiz controlador táctil

Cable USB

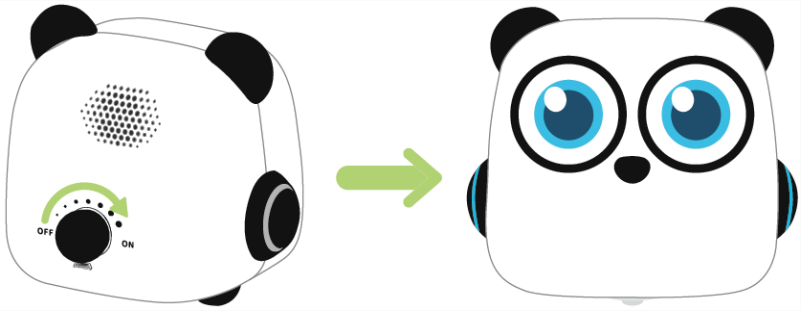


Asta de bandera

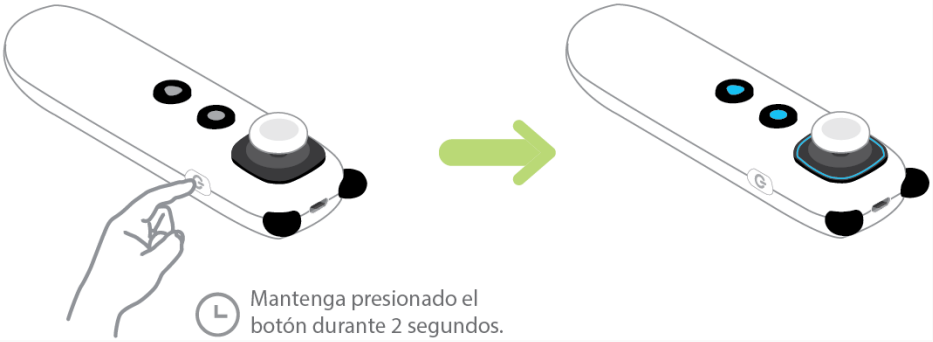
Encender

1. Para encender a mTiny, gire la perilla hacia la derecha hasta que escuche un "click".

> **Nota:** Gire la perilla para ajustar el volumen después de encenderlo.



2. Mantenga presionado el botón de encendido durante 2 segundos para encender.

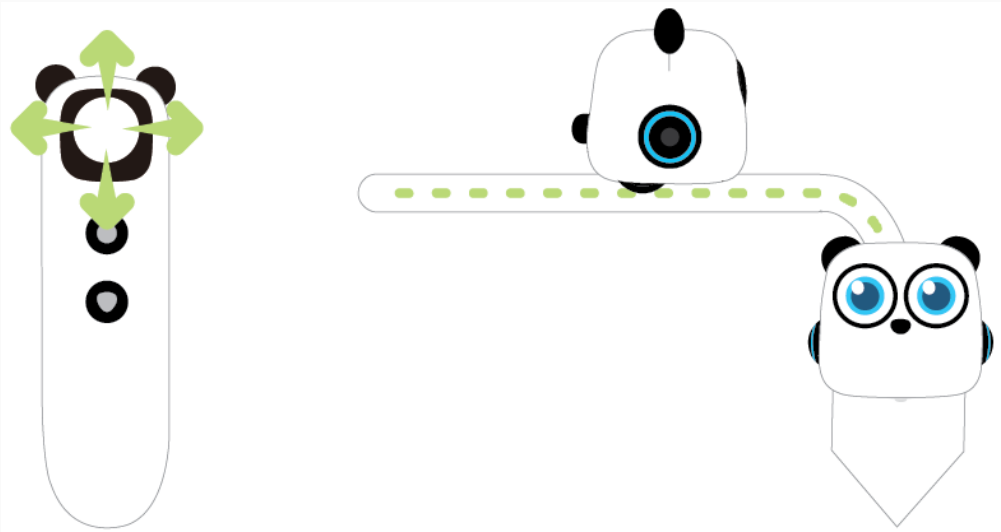


Nota: para apagarlo, Mantenga presionado el botón de encendido durante 2 segundos hasta que todos los indicadores estén apagados.

Instrucciones de uso

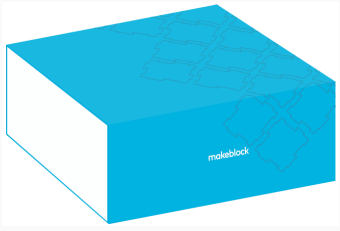
la palanca de mando

Empuje la palanca de mando en diferentes direcciones para que mTiny se mueva.



Más formas de jugar con mapas y tarjetas

mTiny también puede interactuar con mapas y tarjetas, ¡Lea el libro de cuentos "mTiny y sus amigos" y
las tarjetas de juego en el paquete para jugar con mTiny!



Paquete de mapas

Máscaras

Mapas temáticos

Tarjetas de Programacion

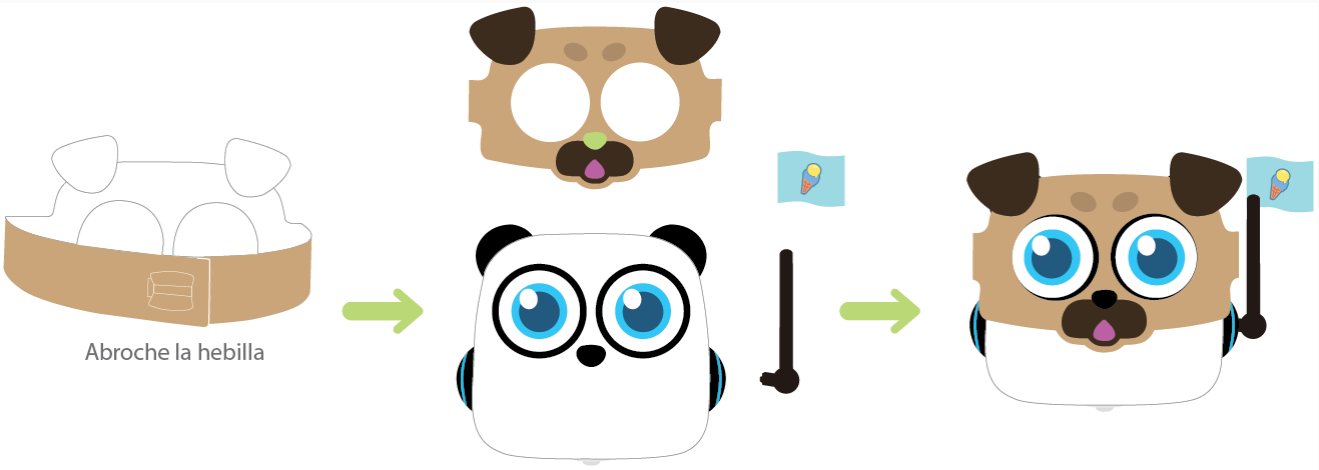
Tarjetas de actividad

Tarjetas de juego

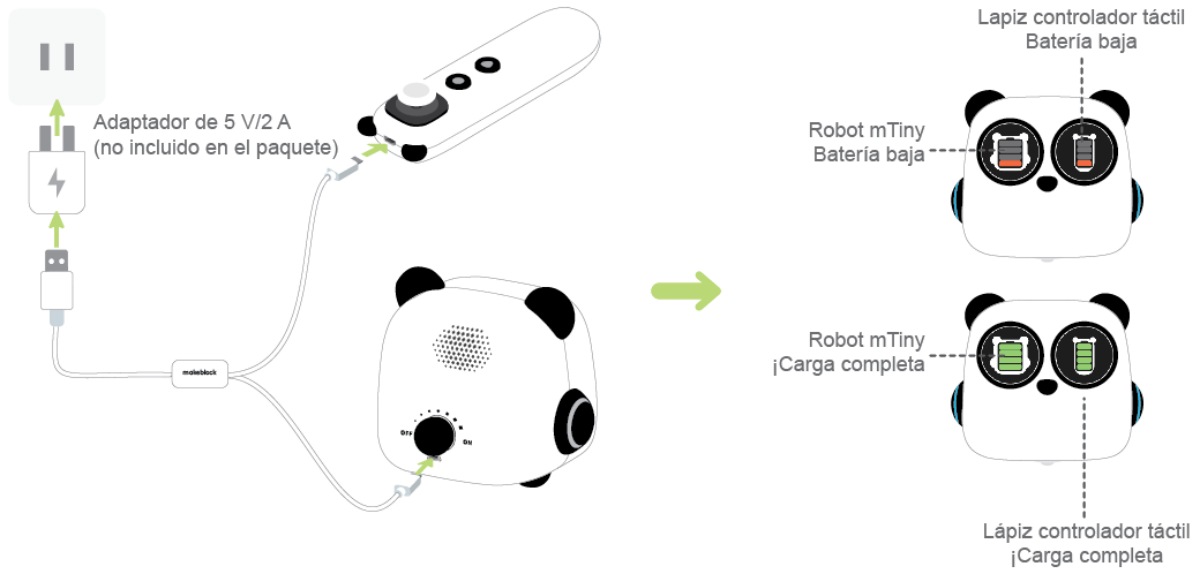
Banderas

Decoracion de mTiny

Banderas + Máscaras



Cargando

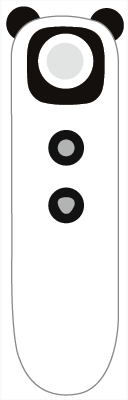


Nota: Los niños deben estar acompañados por un adulto para realizar operaciones de carga.

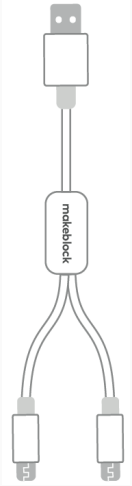
PT-Guia de Início Rápido

Lista de itens

Robô mTiny



Caneta de controlo por toque



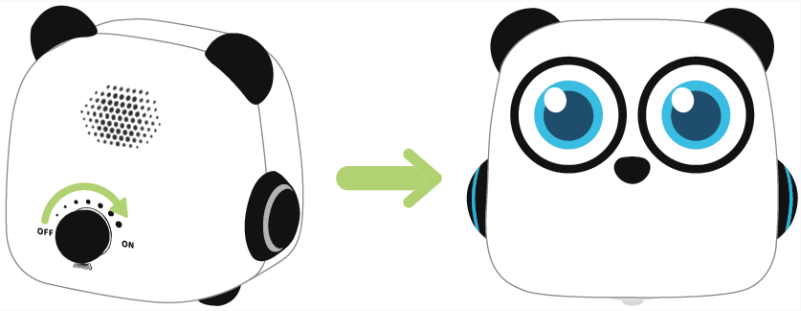
Cabo USB

Mastro de bandeiras

Iniciar

1. Para ligar o mTiny, gire o botão no sentido horário até ouvir um clique.

> **Nota:** Depois que o robô for iniciado, poderá girar o botão para ajustar o volume.



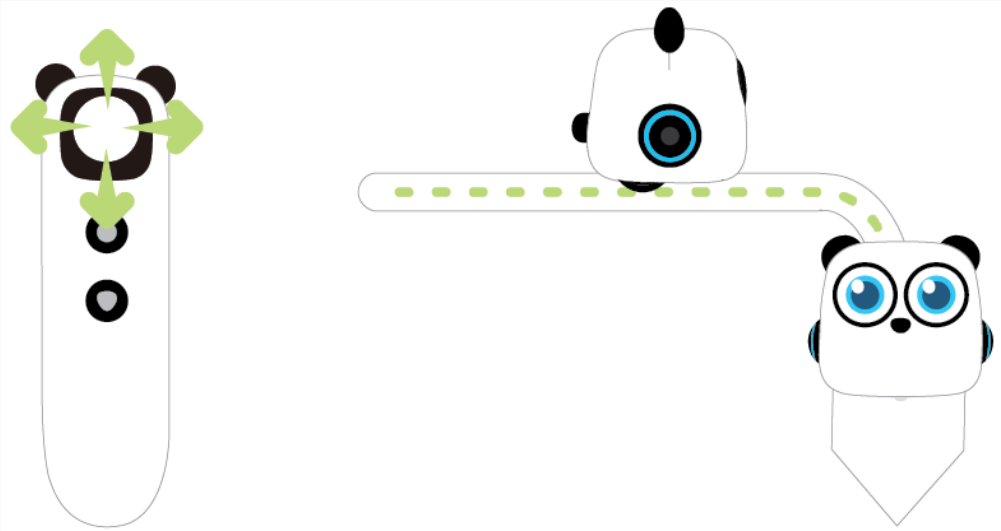
2. Pressione e segure o botão de energia por 2 segundos para ligar a caneta de controlo táctil.

Nota: Mantenha pressionado o botão de energia (cerca de 2 segundos) até que todas as luzes indicadoras sejam desligadas para desligar a caneta de controlo por toque.

Instruções de uso

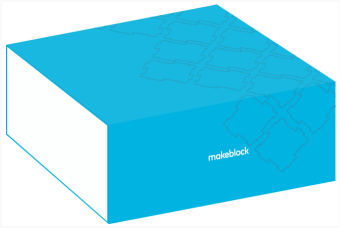
controlo por joystick

Mova o joystick em direções diferentes para mover o mTiny.

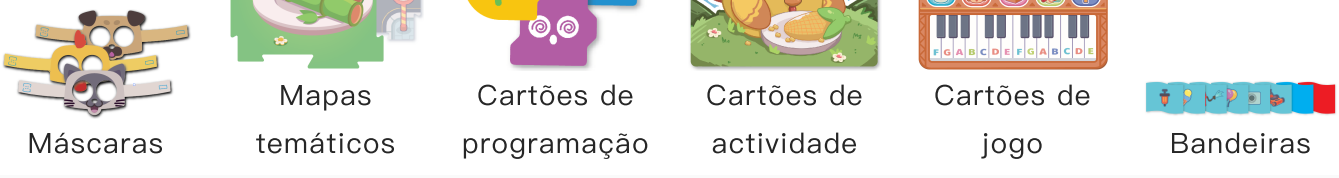


Use os mapas e cartões para criar mais diversão

O mTiny pode interagir com mapas e cartões, Leia o livro de histórias "mTiny e os seus amigos" e os cartões de jogo no pacote de mapas para jogar com ele!

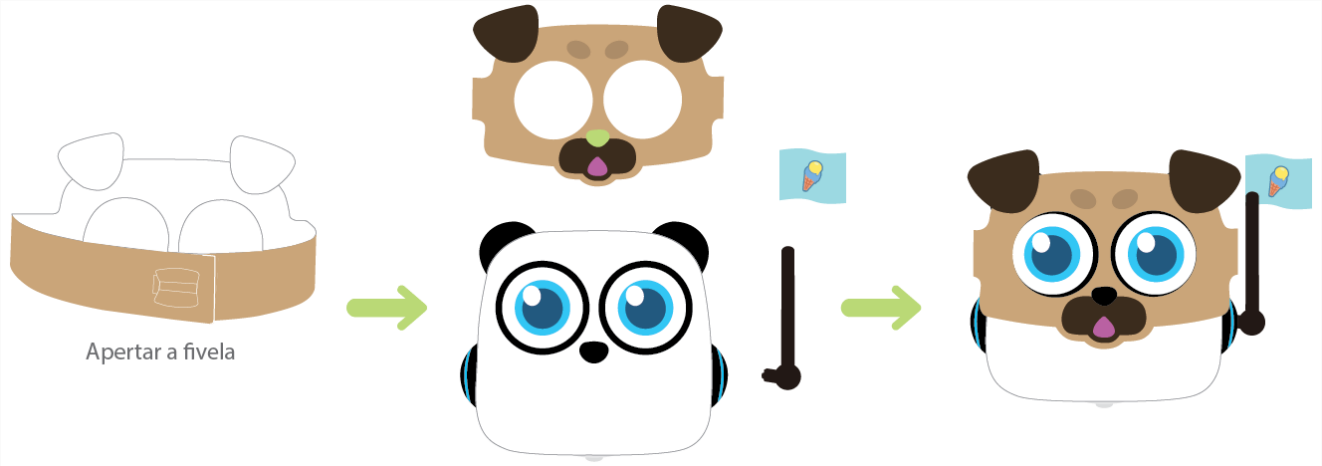


Pacote de mapas

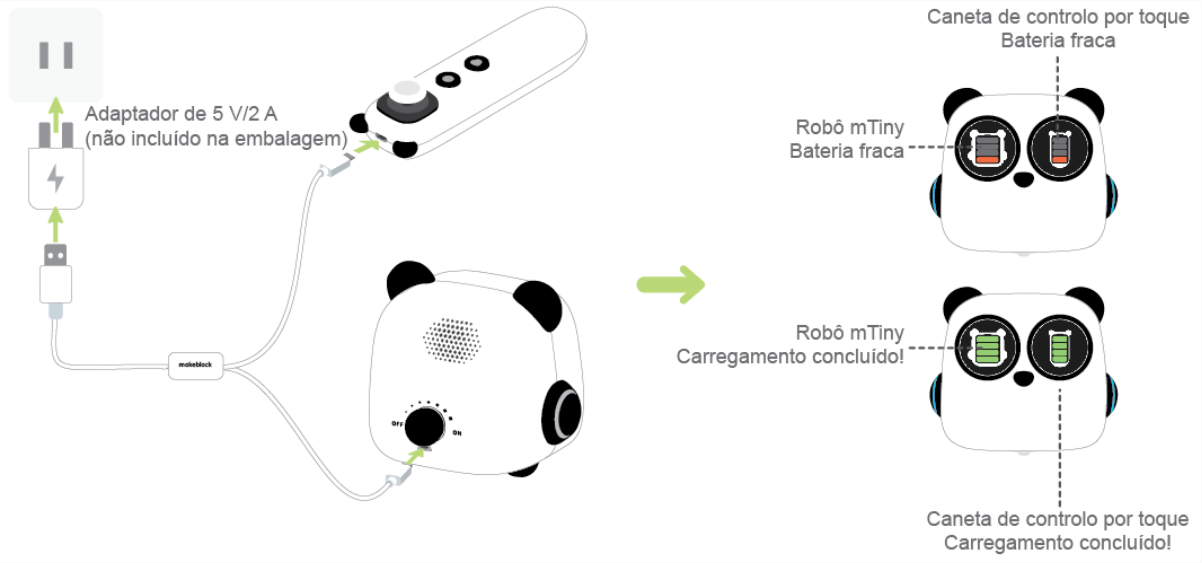


Decorar o mTiny

Bandeiras + máscaras



Carregando

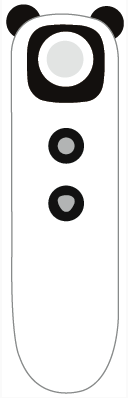


Nota: Não permita que crianças carreguem o produto a menos que um adulto esteja presente.

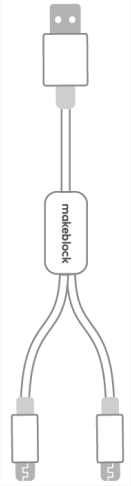
BG-Бързо ръководство

Списък с елементи

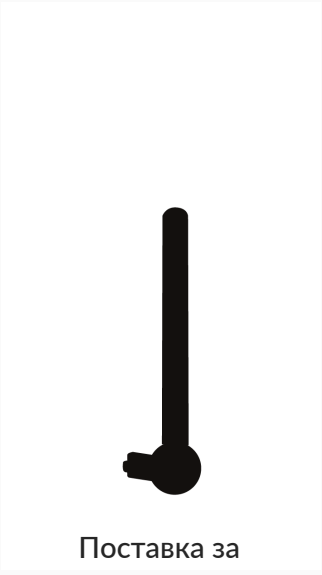
mTiny робот



Писалка със сензорен контролер



USB-кабел

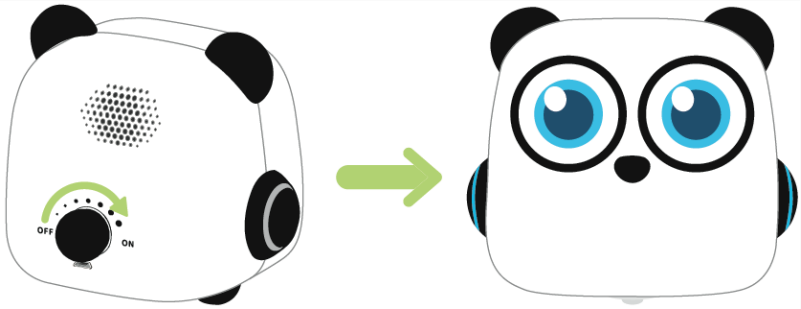


Поставка за знаме

Start

За да включите робота mTiny, завъртете копчето по посока на часовниковата стрелка, докато чуете щракване.

> Забележка: След като роботът стартира, можете да завъртите бутона, за да регулирате звука.

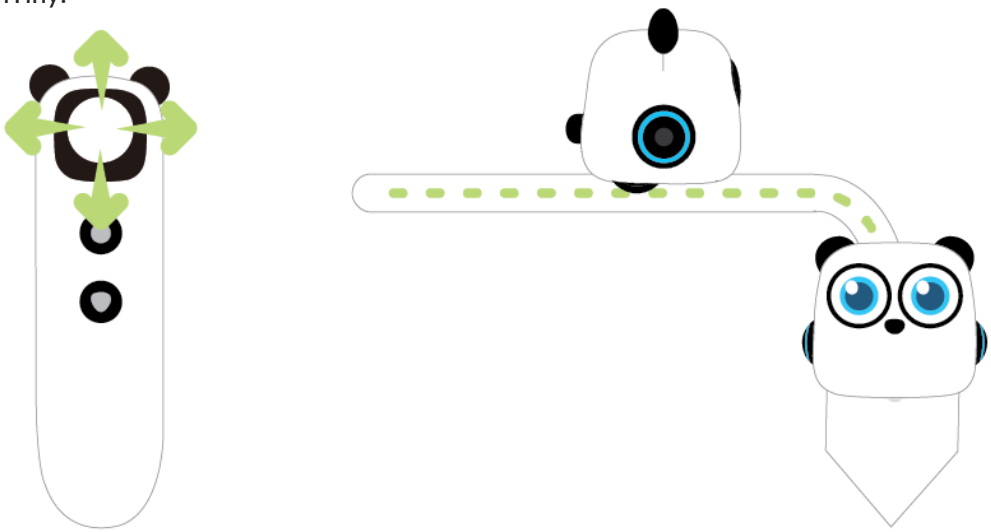


Забележка: Натиснете и задръжте бутона за захранване (за около 2 секунди), докато всички светлинни индикатори изгаснат, за да се изключи дистанционното.

Инструкции за употреба

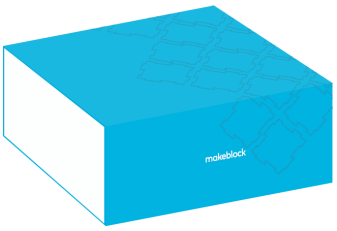
Джойстик с контролер

Плъзнете джойстика в различни посоки, за да преместите mTiny.



Използвайте тематичните части от пъзел и карти за игра за повече забавление.

mTiny може да комбинира с части от пъзел, карти за игра и карти за програмиране. Вижте книжката с картинки „mTiny и неговите приятели“, както и картите за игра в пакета аксесоари към нея и играйте с mTiny!



Пакет аксесоари

Маски

Тематични части от пъзел

Образователни карти за програмиране

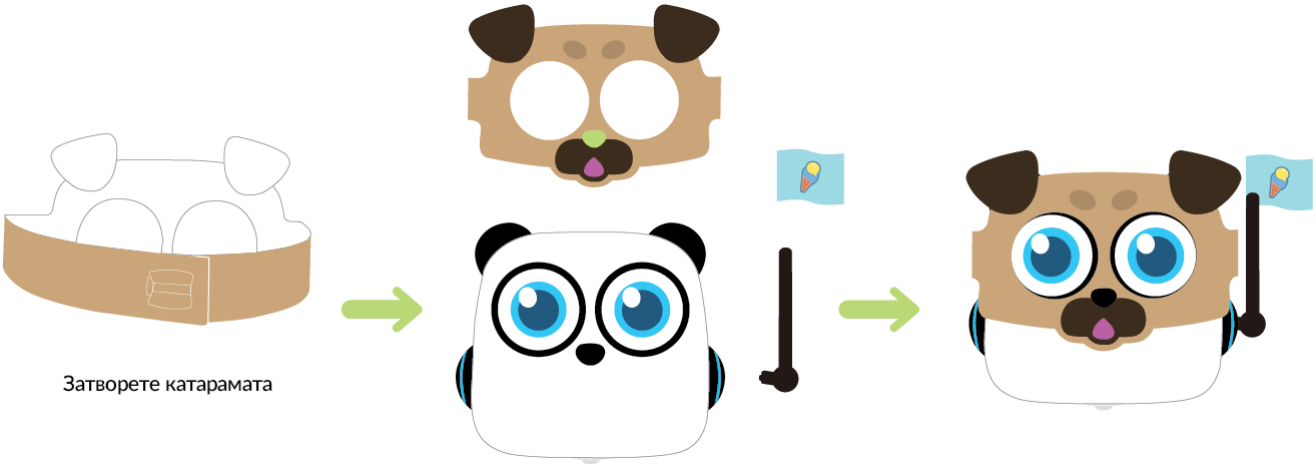
Карти с различни дейности

Карти за игра

Знамена

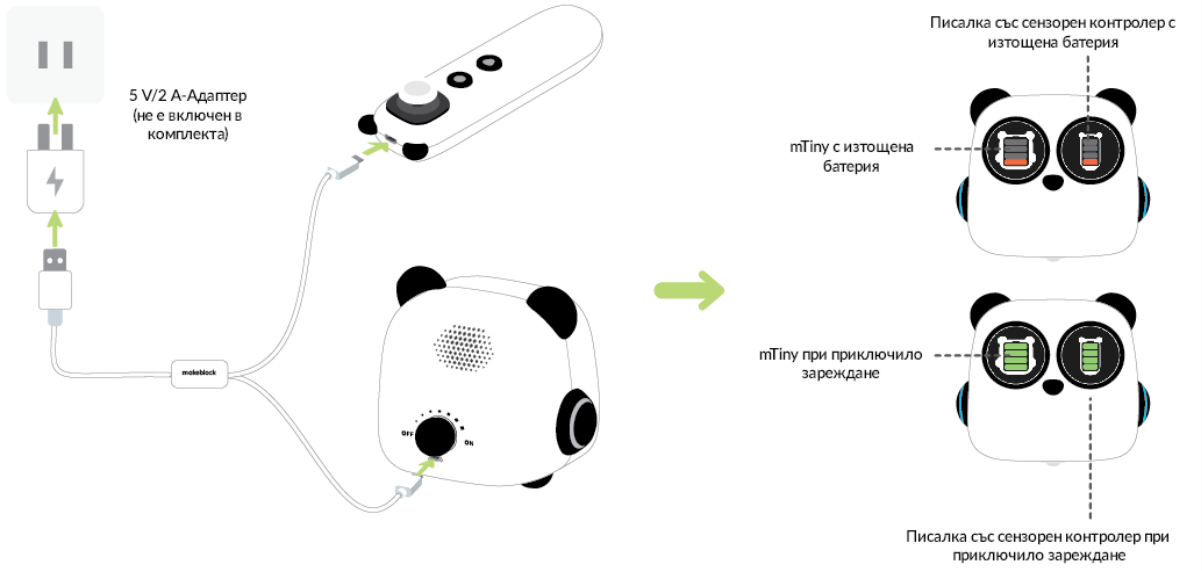
Украсете mTiny

Знамена + маски



Затворете катарамата

Зареждане

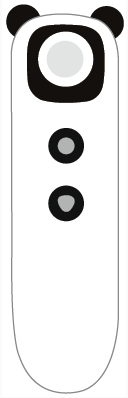


Забележка: Не позволявайте на деца да зареждат продукта, ако не присъства възрастно лице.

RU-Руководство по началу работы

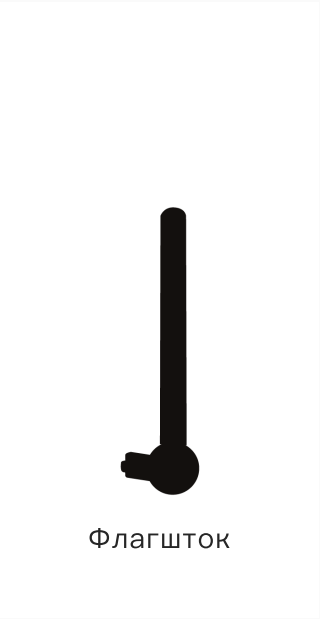
Комплектация

Робот mTiny



Сенсорный контроллер

Кабель USB

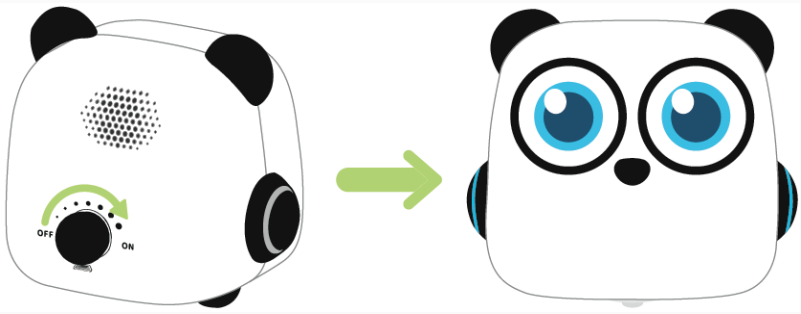


Флагшток

Запуск

1. Для включения mTiny поверните регулятор по часовой стрелке до щелчка.

> **Примечание.** После запуска робота можно регулировать громкость поворотом регулятора.



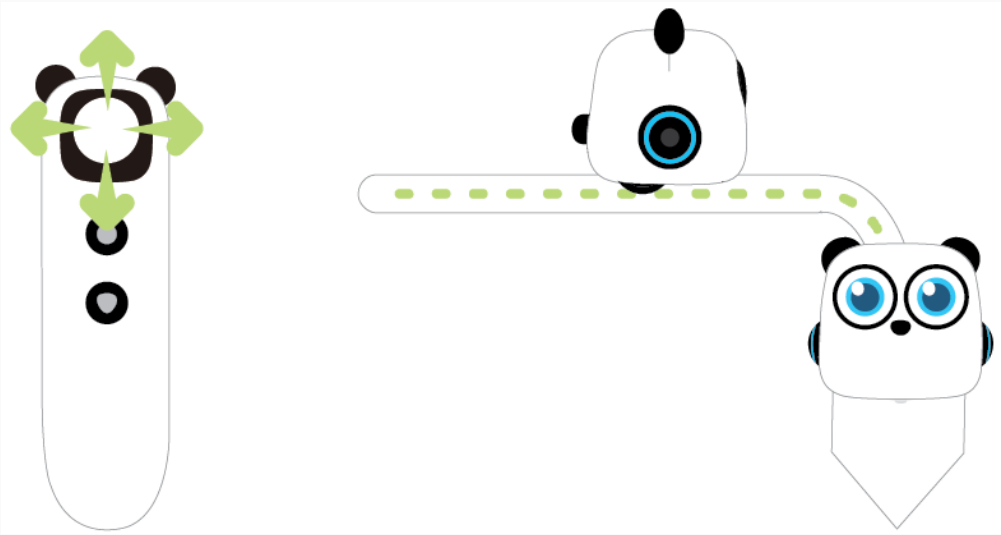
2. Нажмите и удерживайте кнопку питания в течение 2 секунд, чтобы включить сенсорный контроллер.

Примечание. Нажмите и удерживайте кнопку питания в течение 2 секунд, чтобы выключить сенсорный контроллер.

Инструкции по применению

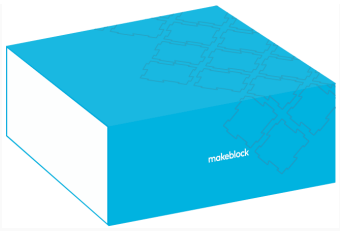
Управление джойстиком

Двигайте джойстик в разные стороны, чтобы перемещать mTiny.



Используйте карты и карточки, чтобы игра стала еще интереснее

mTiny может взаимодействовать с картами и карточками, Прочтите наш сборник сказок «mTiny и его друзья», а также используйте игровые карточки (в комплекте карт) для игр с роботом!



Комплект карт

Маски

Тематические карты

Карты для кодирования

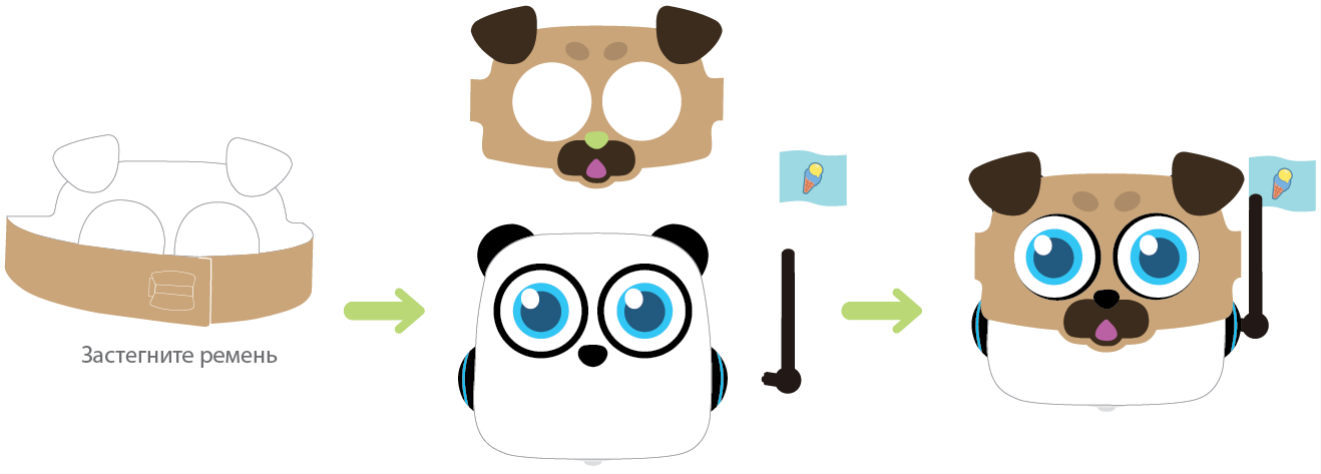
Сборник сказок

Игровые карточки

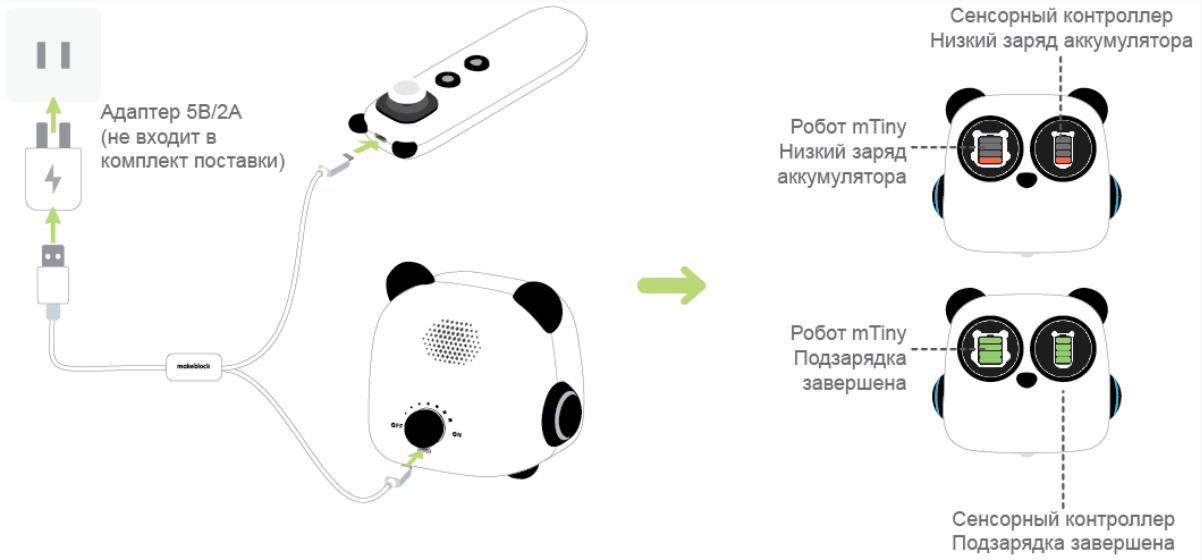
Флаги

Украсьте mTiny

Флаги + маски



Подзарядка

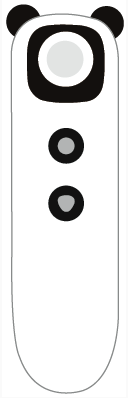


Примечание. Не разрешайте детям заряжать устройство в отсутствии родителей.

IT-Guida rapida

Elenco degli articoli

Robot mTiny



Controller penna capacitiva

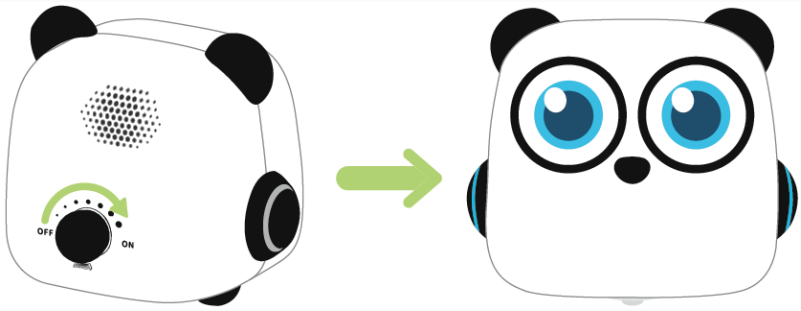
Cavo USB

Asta per bandiera

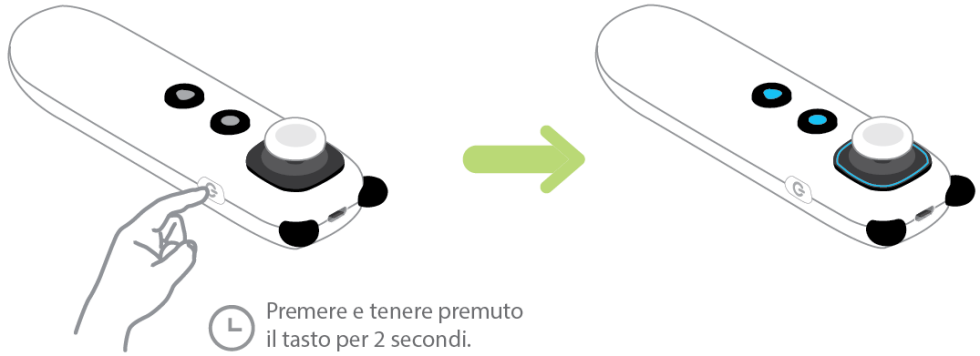
Accensione

1. Per accendere mTiny, ruotare la manopola in senso orario finché non si sente un clic.

> **Nota:** dopo l'avvio del robot, è possibile ruotare la manopola per regolare il volume.



2. Tenere premuto il pulsante di accensione per 2 secondi per accendere il controller penna capacitiva.

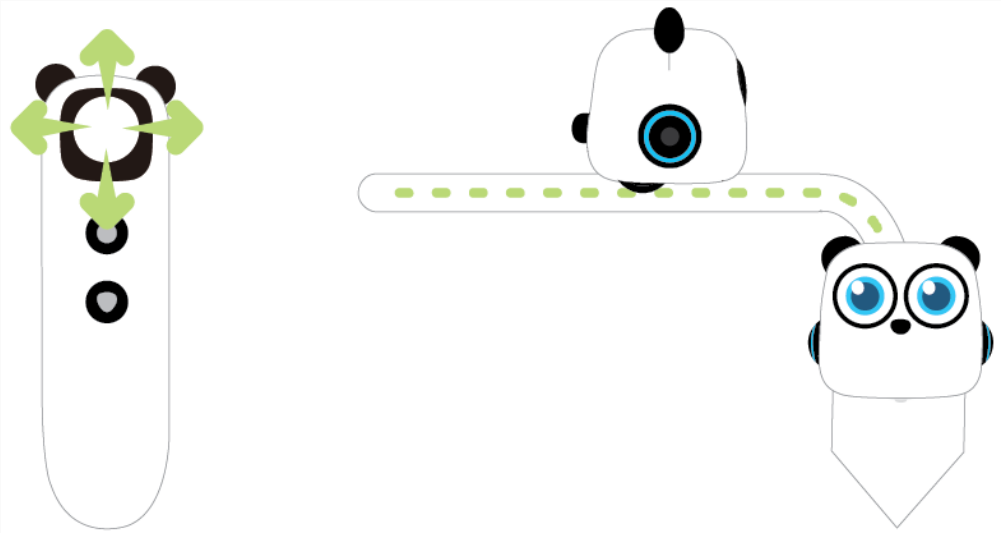


Nota: tenere premuto il pulsante di accensione (circa 2 secondi) fino a quando tutte le spie si spengono per disattivare il controller della penna capacitiva.

Istruzioni per l'uso

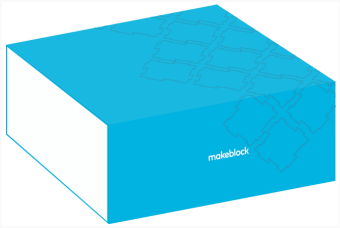
Controllo tramite joystick

Premere il joystick in direzioni diverse per spostare mTiny.



Usa le mappe e le carte per divertirti di più

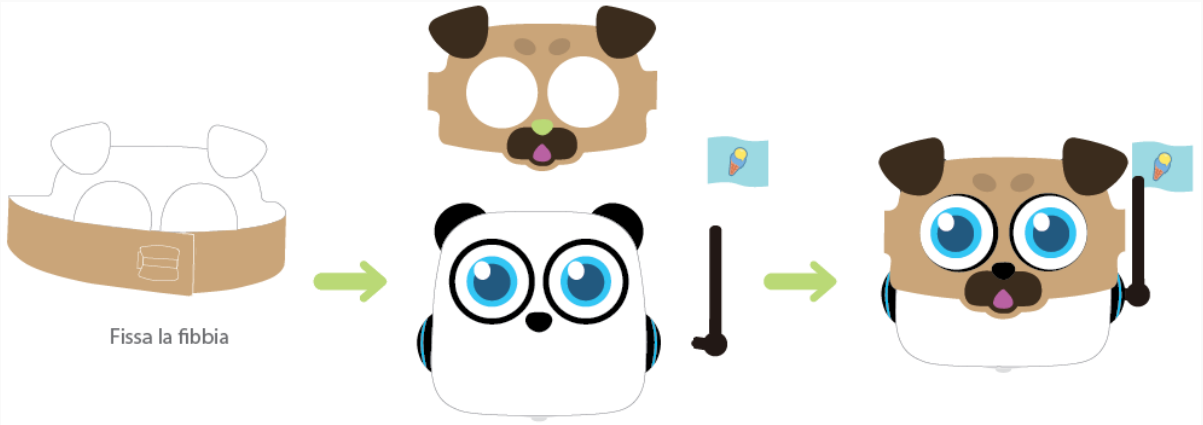
mTiny può interagire con mappe e carte, Dai un'occhiata al libro di racconti "mTiny e i suoi amici" e le carte da gioco nel pacchetto mappe per giocare con lui!



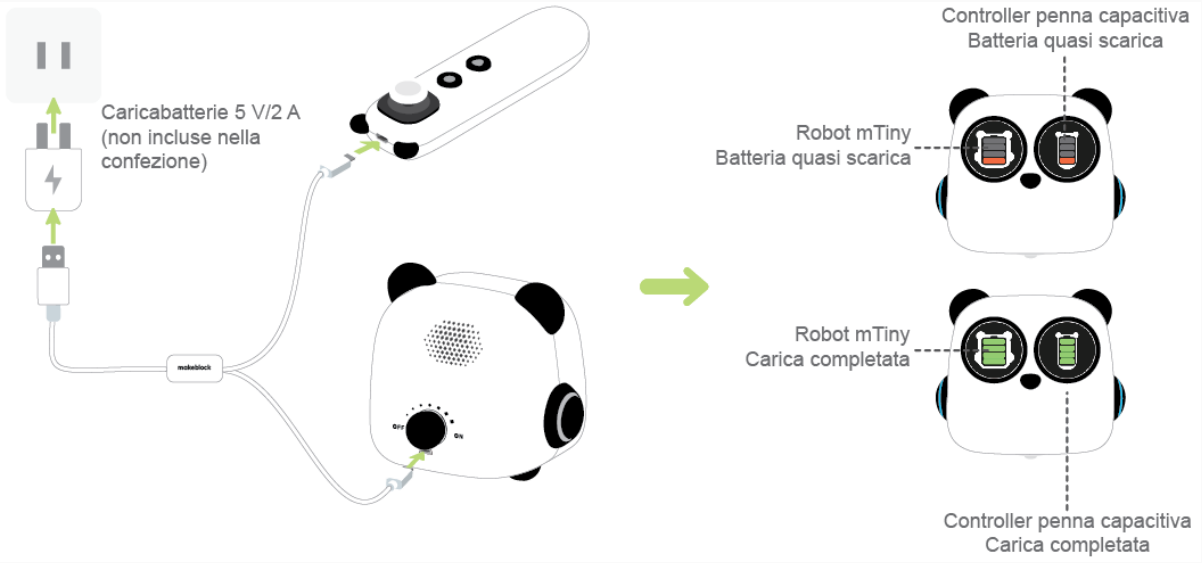
Pacchetto delle mappe

Decorare mTiny

Bandiere + maschere



Ricarica

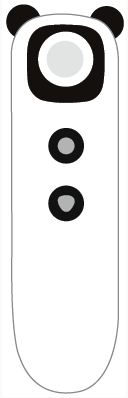


Nota: non consentire ai bambini di caricare il prodotto a meno che non sia presente un adulto.

KR-빠른 시작 가이드

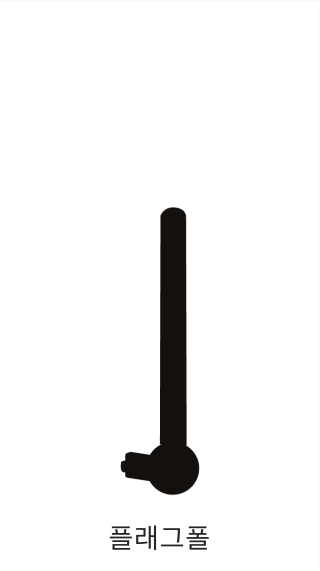
물품 목록

mTiny 로봇



탭 펜 컨트롤러

USB 케이블

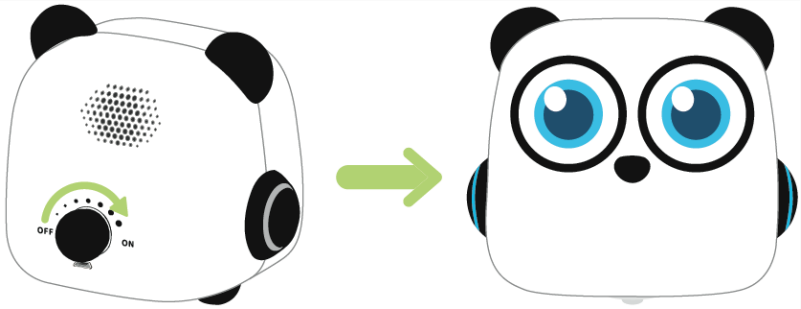


플래그폴

시작

1. mTiny의 전원을 켜려면, 찰칵하는 소리가 들릴 때까지 노브를 시계 방향으로 돌립니다.

> **참고:** 로봇 작동 후, 노브를 돌려 볼륨을 조절할 수 있습니다.



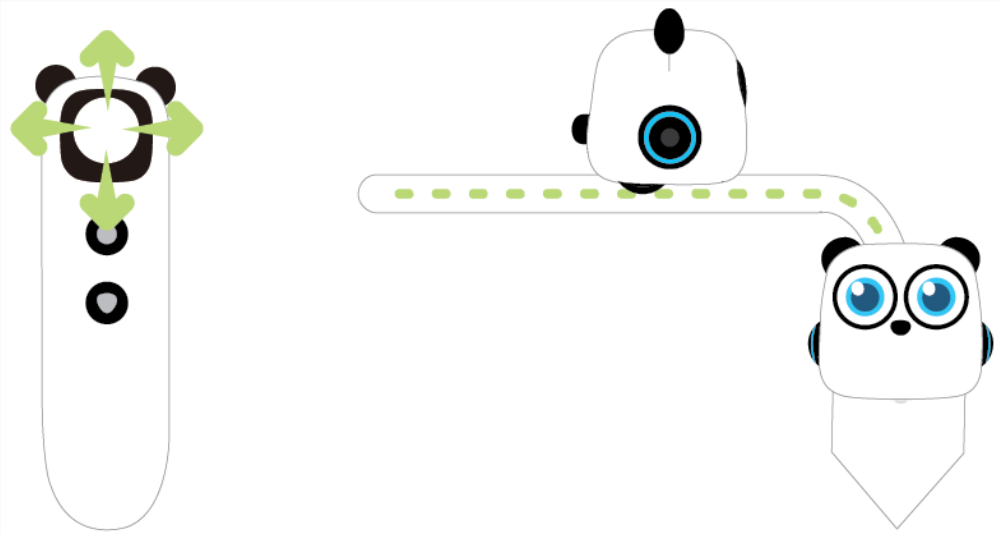
2. 전원 버튼을 2초간 길게 눌러 탭 펜 컨트롤러의 전원을 켭니다.

참고: 모든 지시등이 꺼질 때까지 전원 버튼을 길게(약 2초) 누르면 탭 펜 컨트롤러의 전원이 꺼집니다.

사용설명서

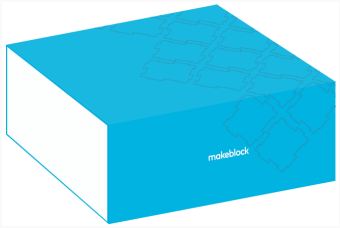
조이스틱 제어

조이스틱을 다양한 방향으로 밀어 mTiny를 이동시킬 수 있습니다.



지도와 카드를 사용하시면 더욱 재미있습니다

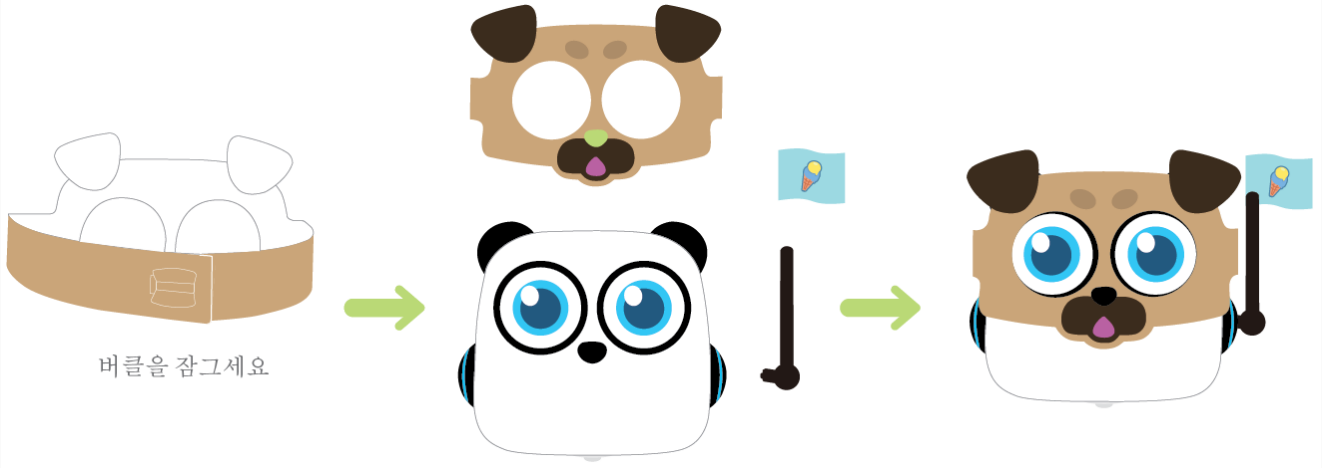
mTiny는 지도 및 카드와 상호 사용 가능합니다, 지도팩에 포함되어 있는 “mTiny와 친구들” 스토리북 또는 게임 카드의 스토리를 활용하여 mTiny와 놀아보세요!



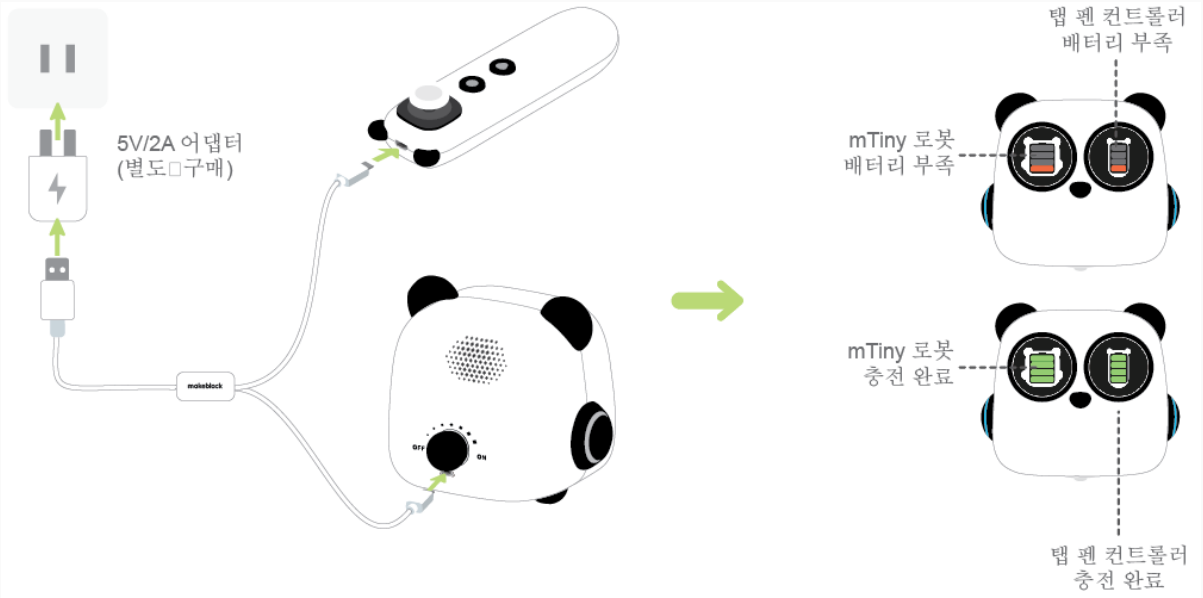
지도 팩

mTiny를 장식하세요

플래그 + 캐릭터 마스크



충전

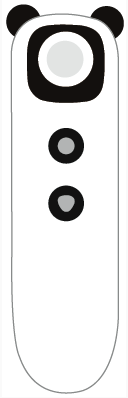


참고: 보호자가 지켜보는 경우를 제외하고 어린이가 제품을 충전하지 않도록 해야 합니다.

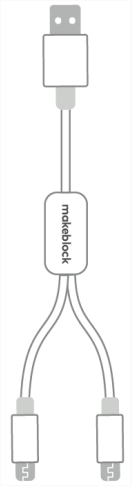
TC-快速使用指南

物品清單

童小點機器人



點控筆



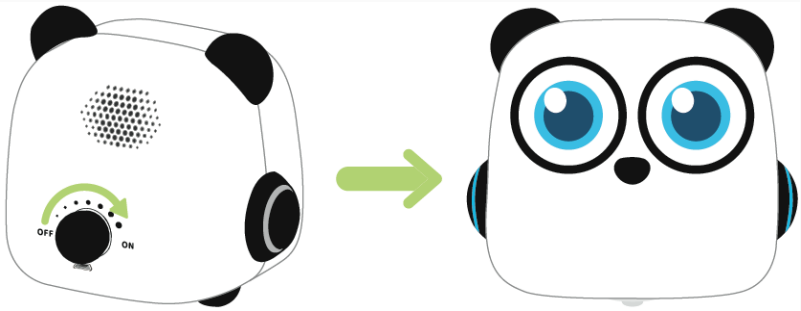
USB 傳輸線

旗桿

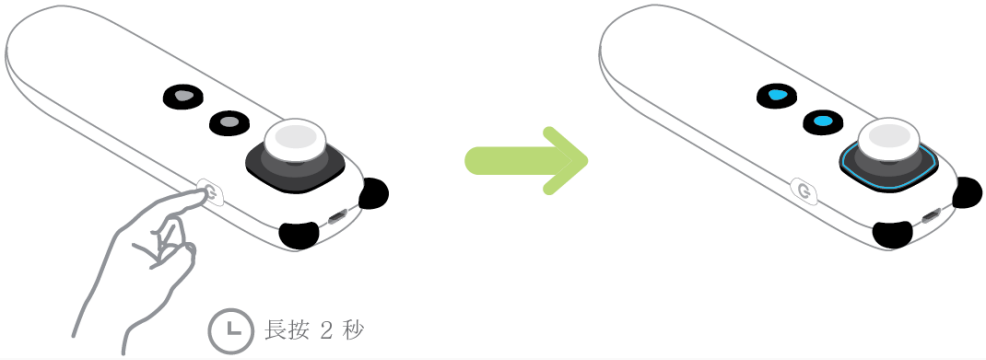
開機

1. 右轉開關直到聽到「嗒」的一聲即可開機

> **註：** 開機後轉動開關旋鈕可調整音量大小。



2. 長按電源鍵 2 秒即可開機

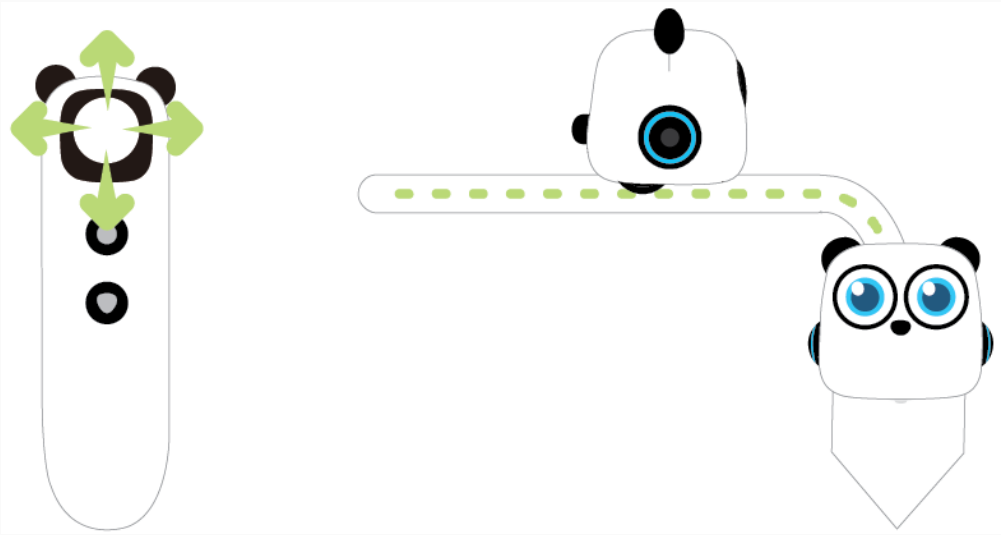


註： 長按電源鍵 2 秒直到所有指示燈熄滅即可關機。

使用說明

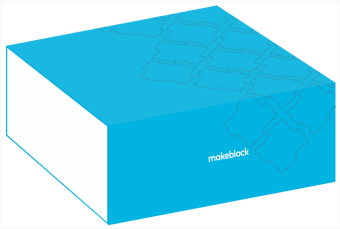
搖桿控制

向不同方向推動搖桿使童小點移動。



搭配地圖及卡片的更多玩法

童小點還可以與地圖和卡片互動，查看地圖包中的《童小點和他的朋友們》故事書或者遊戲卡片上的內容來和他玩耍吧！



地圖包

面具

主題地圖

程式指令卡片

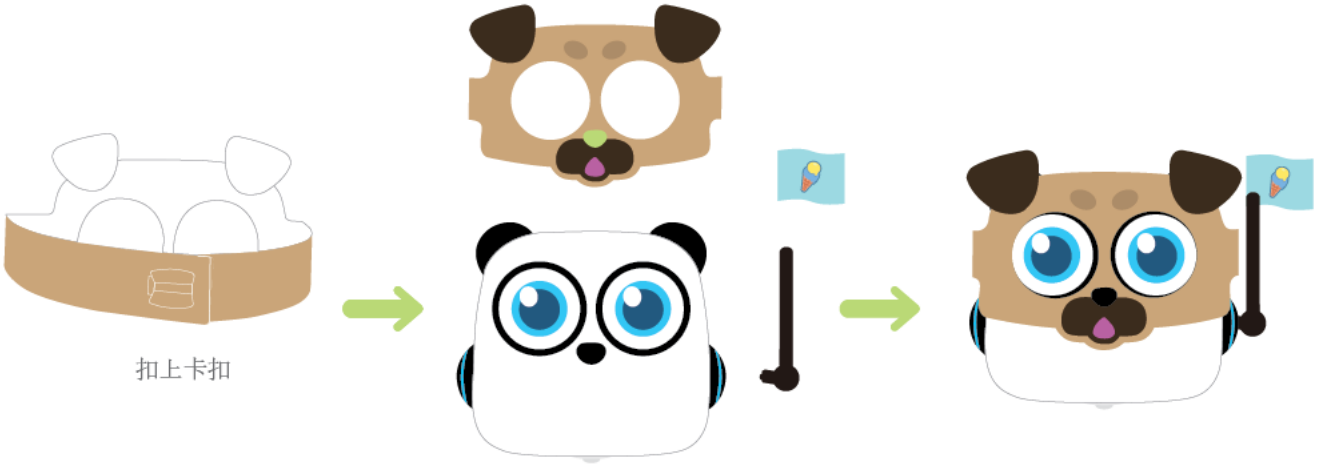
案例卡

遊戲卡片

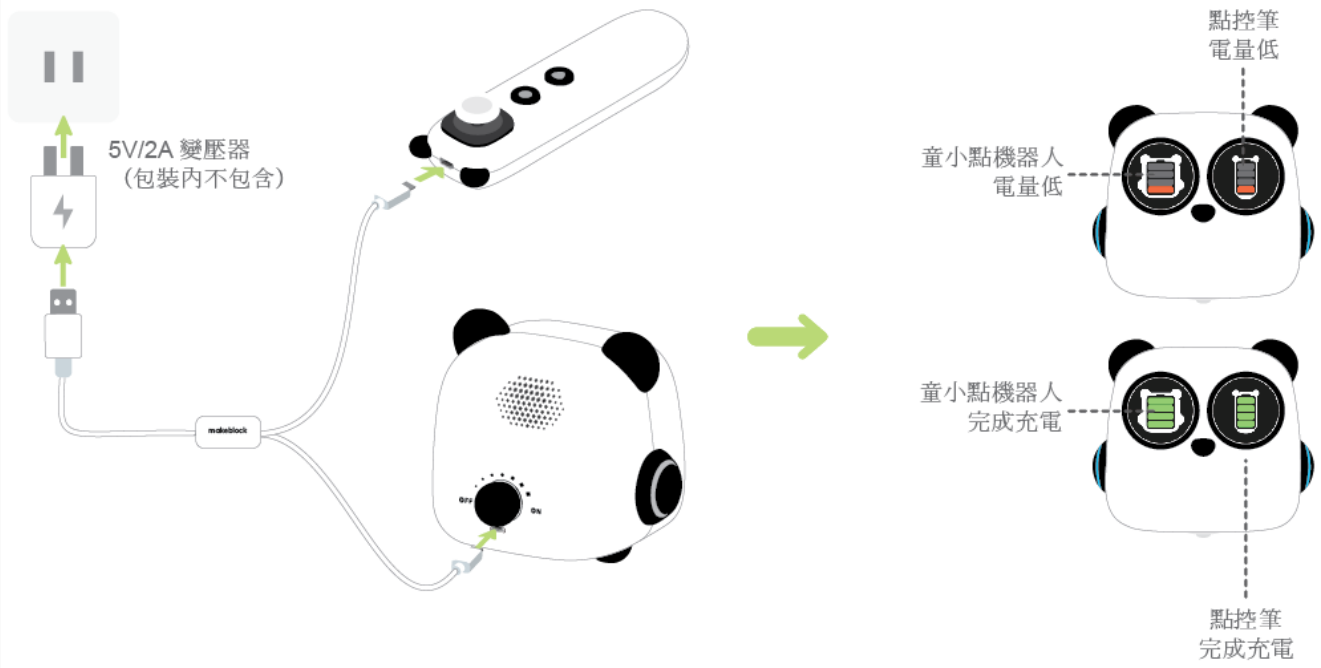
旗子

裝飾童小點

小旗子 + 角色裝飾



充電

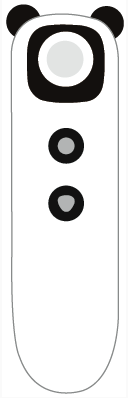


註：兒童請在成人的陪同下進行充電操作。

NL-Snelstartgids

Lijst van items

mTiny–robot



Penbesturing

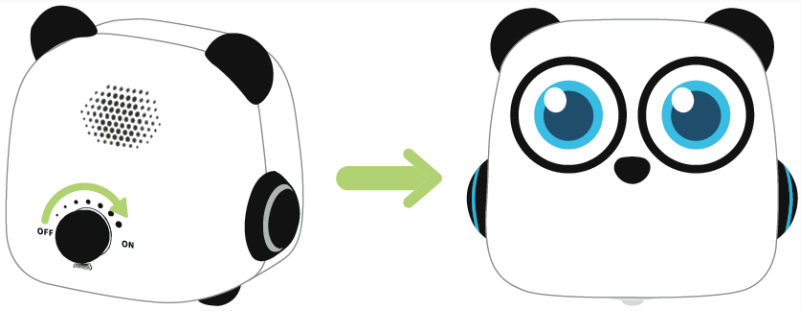
USB–kabel

Vlagpaal

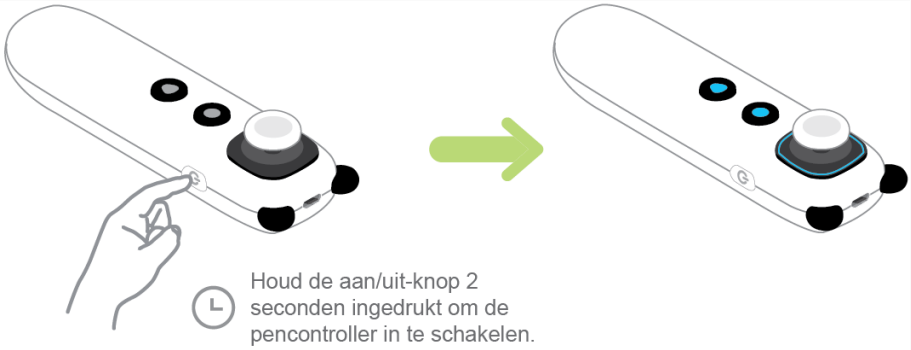
Opstarten

1. Om mTiny in te schakelen, draait u de knop met de klok mee tot u een klikgeluid hoort.

> **Opmerking:** Nadat de robot is gestart, kunt u de knop draaien om het volume te regelen.



2. Houd de aan/uit–knop 2 seconden ingedrukt om de pencontroller in te schakelen.

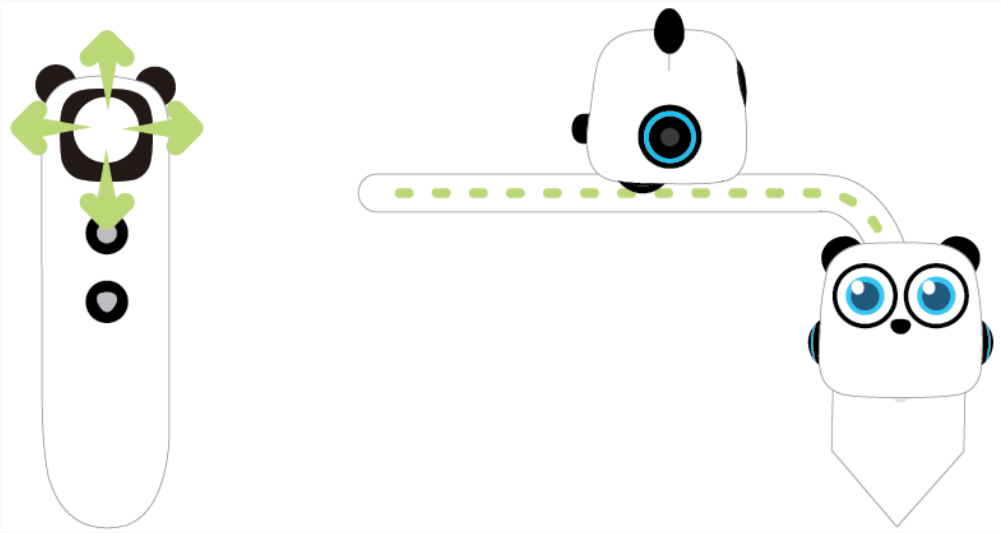


Opmerking: Houd de aan/uit-knop ingedrukt (ongeveer 2 seconden) tot alle indicatielampjes uitgaan om de pencontroller uit te schakelen.

Gebruiksaanwijzing

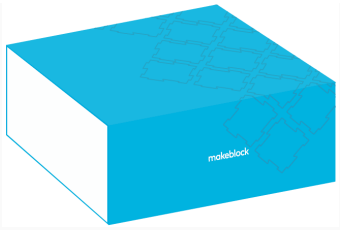
Joystickbediening

Duw de joystick in verschillende richtingen om mTiny te bewegen.



Gebruik mappen en codeerkaarten om meer plezier te creëren

Bekijk het verhalenboek "mTiny en zijn vrienden" en spelkaarten in het kaartpakket om met hem te spelen!



Kaartpakket

Maskers

Thema–map

Codeerkaarten

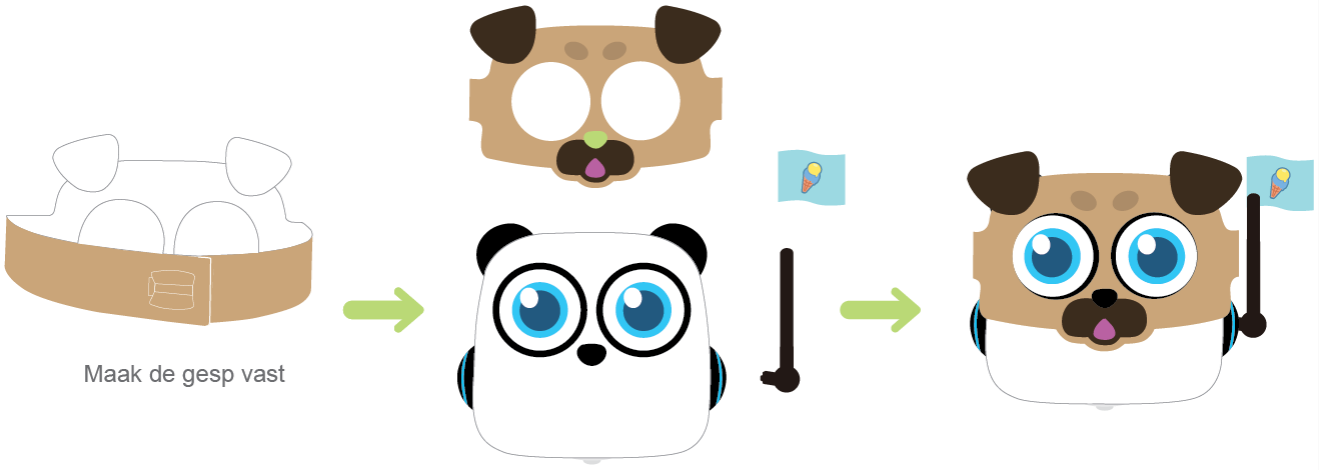
Activiteitskaarten

Spelkaarten

Vlaggen

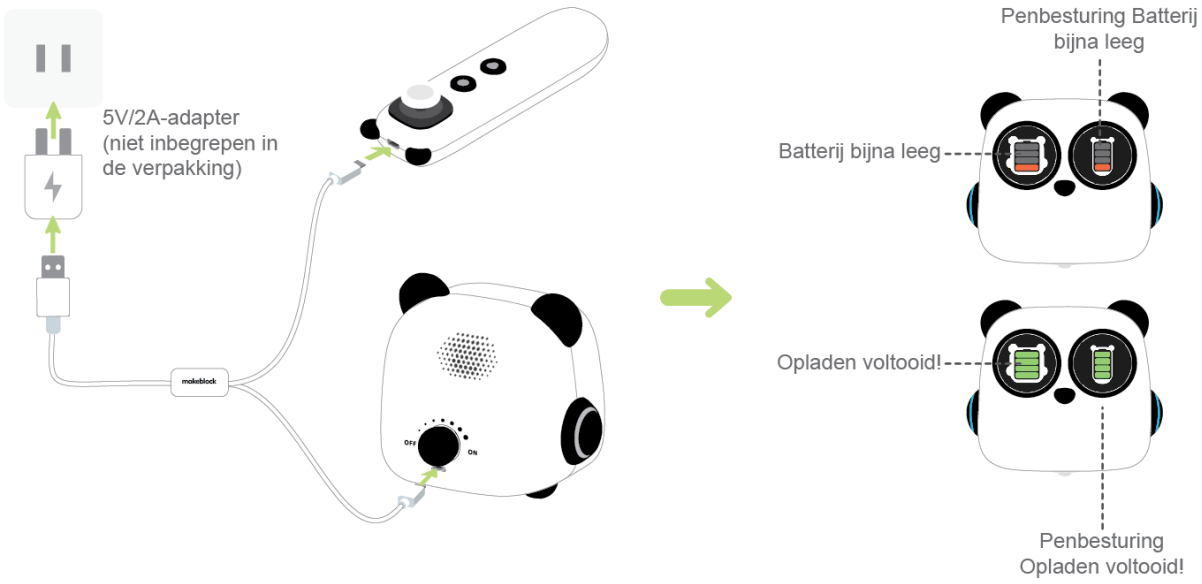
Versier mTiny

Vlaggen + maskers



Maak de gesp vast

Opladen

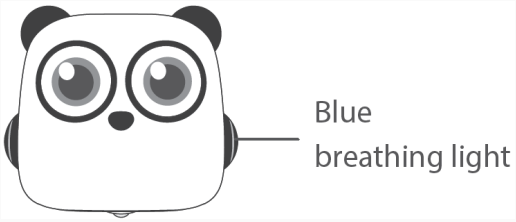


Opmerking: Laat kinderen het product niet opladen tenzij er een volwassene aanwezig is.

EN-Safety Instructions

Sleep/Wake up

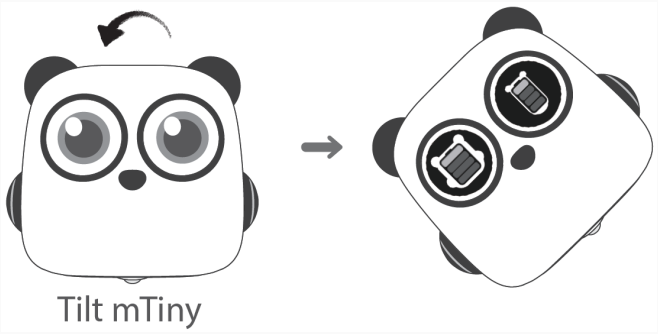
When the displays turn off and the side indicators turn blue breathing lights, mTiny is in Sleep mode.



Move the joystick on the tap pen controller or shake mTiny to wake it up.

Check the current battery level

Tilt mTiny and hold it for a while, then the battery level of both mTiny and the tap pen controller will be displayed.

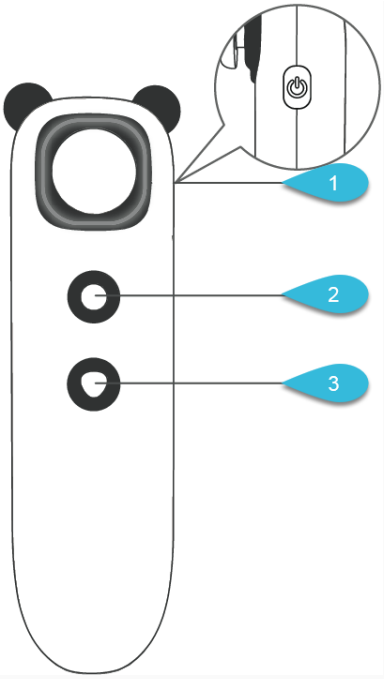


Button instruction

1: Power button
Long press the button to turn on or turn off the tap pen controller.

2: Confirm button
Run the input program, or repeat the last program.

3: Stop button

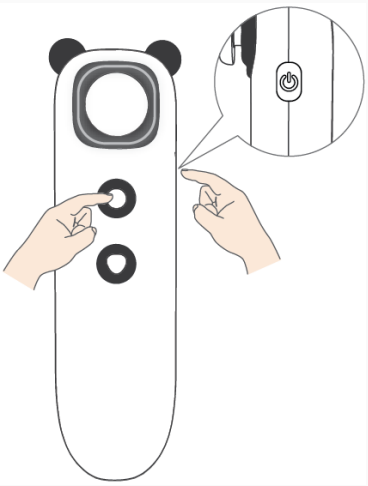


Stop the action in progress.

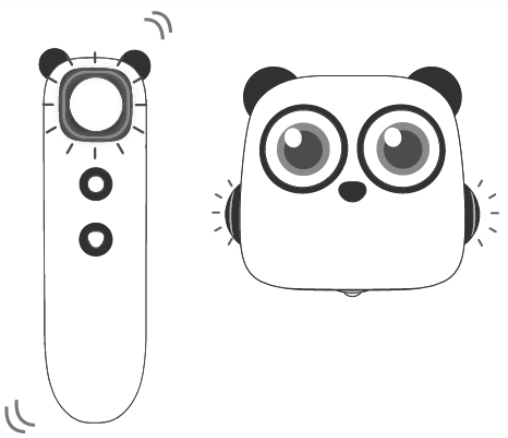
Pairing

Before pairing, restart the robot and the tap pen controller. Then follow the instructions below to complete pairing:

1. Press and hold these two buttons for 2 seconds.



2. Move the tap pen controller close to mTiny to start pairing. The indicator will alternatively flash blue and red.



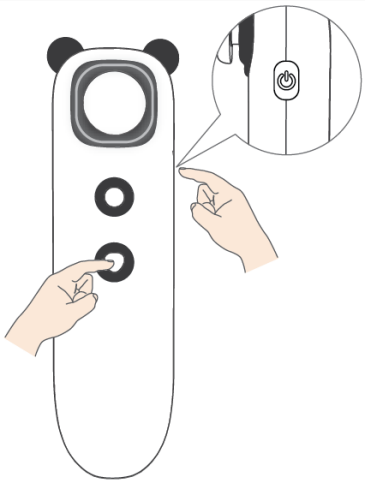
After the pairing is successful, a blue light indicator is steady on.

Joystick calibration

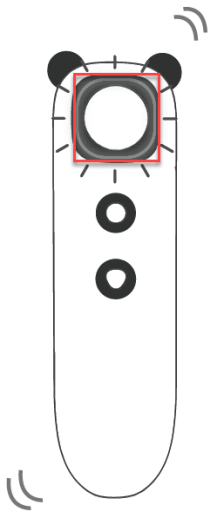
The joystick might misbehave after used for a long term, please follow the instruction below to calibrate it to maintain precise control.

1. Begin calibration.

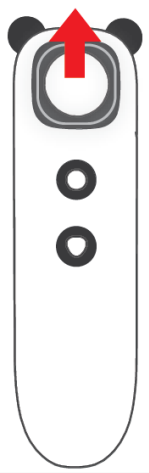
   Press and hold these two buttons for 2 seconds.



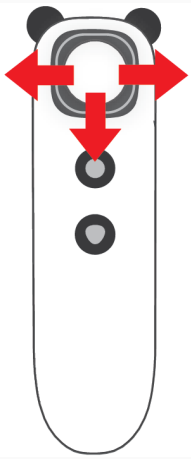
The indicator alternatively flashes blue and green.



2. Push the joystick fully forward and then release.

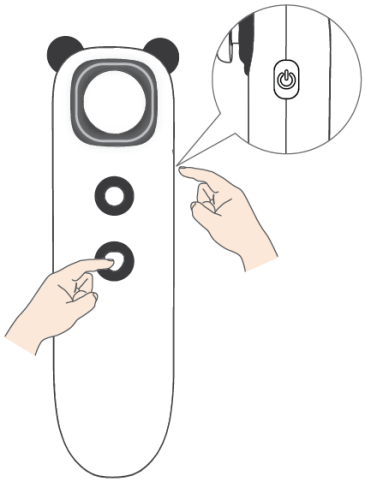


3. Push/pull the joystick fully in the other three directions and then release to complete calibration.



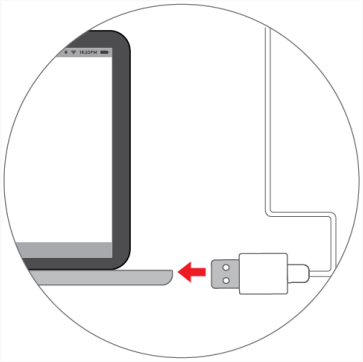
4. Exit calibration.

   Press and hold these two buttons for 2 seconds.

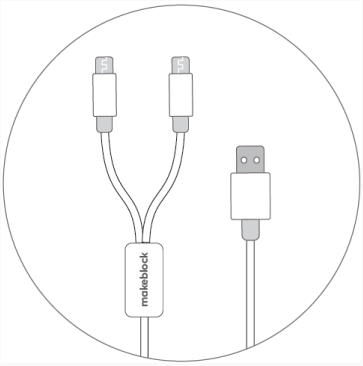


Firmware update

1. Preparation for update



A computer with USB ports

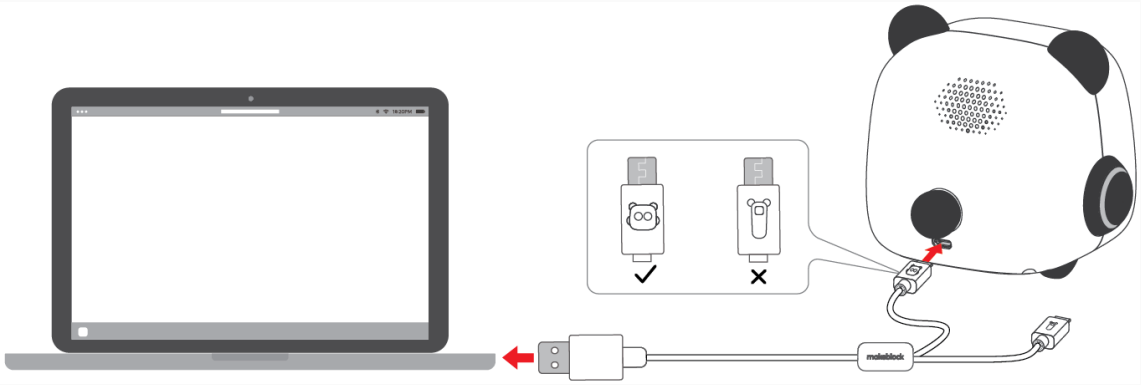


USB cable in the product package

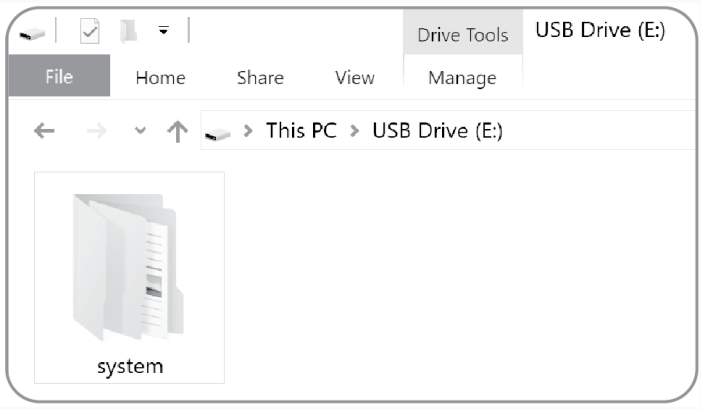
Paired mTiny and tap pen controller
(with at least 50% battery level)

2. Go to https://www.makeblock.com/support/ps-mtiny#firmware and download the latest firmware update package.

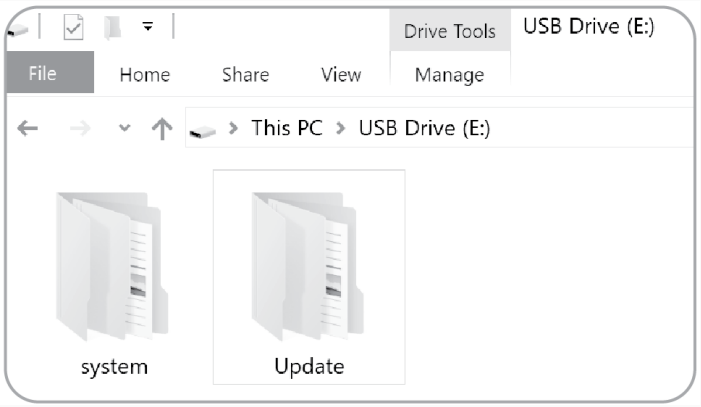
3. Use the USB cable with the mTiny icon to connect mTiny to the computer.



4. After connection, the computer will recognize mTiny as a USB drive. Open it, a folder named “system” will be displayed.



5. Extract the update package. Find the folder named “update” in the extracted directory. Copy and paste the whole “update” folder into the root directory of mTiny’s disk.



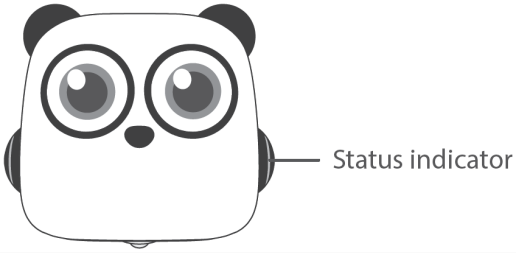
6. Disconnect mTiny from the computer.

7. Restart mTiny and the tap pen controller, and the update process will start automatically.
   The update process will take 3 to 5 minutes. Please be patient.
   There will be a prompt sound when the update is successful.

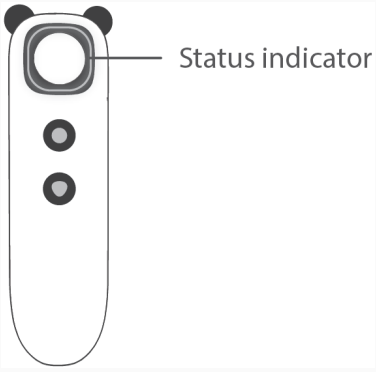
During the update process, mTiny will automatically check the connection with tap pen controller and the current battery level. The process might stop if those conditions are not met. Please pair again or charge the battery.

Update completed. Try mTiny's new features!

Indicator status



Blue breathing light	Sleep mode
Red breathing light	Charging
Green light steady on	Charging complete
Red light flashes	Low battery
Blue light flashes	Not paired with tap pen controller
The indicator alternatively flashes red and blue	Pairing with tap pen controller
Blue light steady on	Pairing succeeded



Blue breathing light	Sleep mode
Red breathing light	Charging

Green light steady on	Charging complete
Red light flashes	Low battery
Blue light flashes	Not paired with mTiny
The indicator alternatively flashes red and blue	Pairing with mTiny
Blue light steady on	Pairing succeeded

Cautions

- The product is recommended for children over 4 years old.
- Do not allow children under 3 years old to use the product.
- An adult must be present when children use the product.
- Do not put the product at the edge of a high place to prevent damage by falling.
- Do not disassemble, repair, or modify the product yourself to prevent from the product failure.
- Battery is not replaceable.
- Do not put the product in water or fire, or expose it to a damp or high temperature environment to avoid product failure or safety hazards.
- Do not use or charge the product at a temperature exceeding the operating temperature range.
- Please fully charge the product before leaving it idle, and charge it at least once every 3 months.
- Please use the recommended adapter (5V/2A) to charge the product.
- The power adapter (not included in the product package) for the product is not a toy.
- Misuse of the power adapter might result in electric shock hazard.
- Please shut down and disconnect the product from the external power supply before cleaning the product with liquid.
- Do not connect the product to more than the recommended quantity of power supplies.
- This product could only be charged under adult's supervision.
- Check the cables, plugs, casing, and other components for any damage on a regular basis. Stop using the product immediately if any damage occurs and get it repaired.
- The toy is only to be connected to Class II equipment bearing the following symbol " ".
- Faults may occur when the product is charged at a temperature lower than 0˚C or higher than 40˚C.

Specifications

Battery (mTiny)	1,800 mAh lithium battery

Micro USB input voltage (mTiny)	DC 5V
Micro USB input current (mTiny)	1.5 A
Battery (tap pen controller)	300 mAh lithium battery
Micro USB input voltage (tap pen controller)	DC 5V
Micro USB input current (tap pen controller)	270 mA
Transmission mode	2.4G
Frequency range	2400 MHz—2480 MHz
Working distance	Within a 10-meter radius (in an open field)
Operating temperature	0°C—40°C
Storage temperature	—10°C—+55°C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

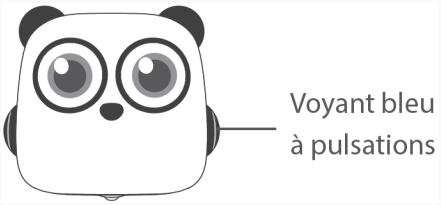
DECLARATION OF CONFORMITY

Declaration of conformity Hereby, Makeblock Co., Ltd., declares that this product is in compliance with the essential requirements and other relevant provisions of Directive RED 2014/53/EU and the RoHS directive 2011/65/EU

FR-Consignes de sécurité

Veille/réveil

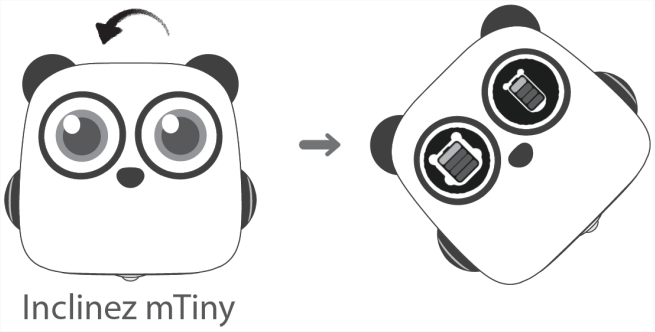
Lorsque l'affichage s'éteint et que les voyants latéraux clignotent en bleu lentement, mTiny est en mode veille.



Déplacez la manette sur le stylet de commande ou secouez mTiny pour le réveiller.

Vérifiez le niveau actuel de la batterie

Inclinez mTiny et maintenez-le pendant un certain temps, le niveau de la batterie de mTiny et du stylet de commande s'a cheront.

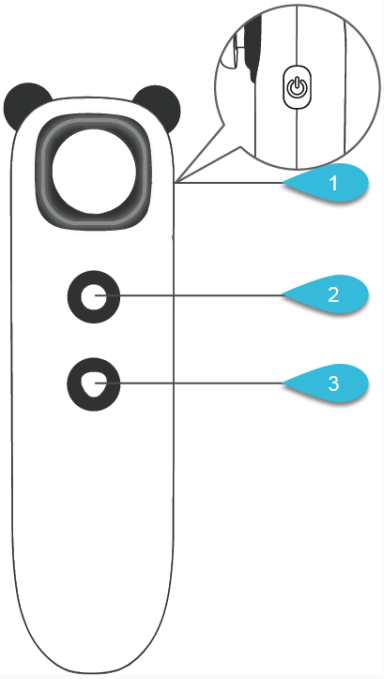


Explication des boutons

1: Bouton d'alimentation
Appuyez longuement sur le bouton pour allumer ou éteindre le stylet de commande.

2: Bouton de confirmation
Exécutez le programme de saisie, ou répétez le dernier programme.

3: Bouton d'arrêt

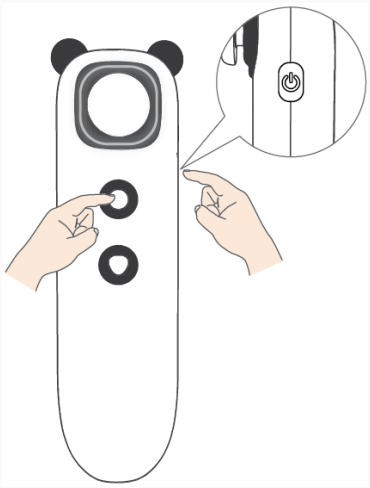


Arrêtez l'action en cours.

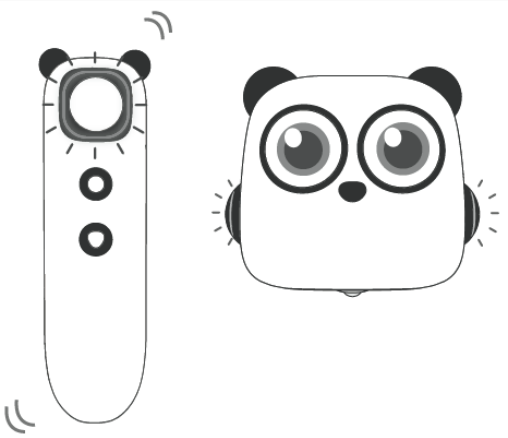
Appairage

Avant l'appairage, redémarrez le robot et le stylet de commande Suivez ensuite les instructions ci-dessous pour terminer l'appairage :

1. Appuyez sur le bouton pendant 2.



2. Rapprochez le stylet de commande de mTiny pour démarrer l'appairage. Le voyant clignote alternativement en bleu et rouge.



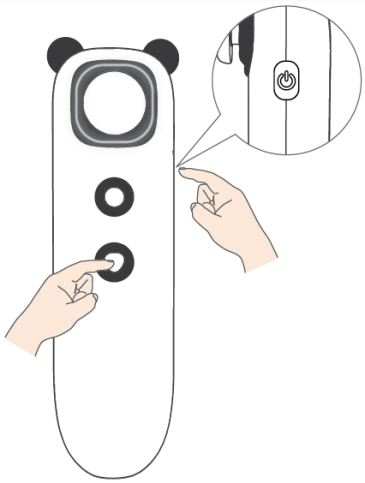
Appairage réussi Le voyant lumineux devient bleu fixe.

Étalonnage de la manette

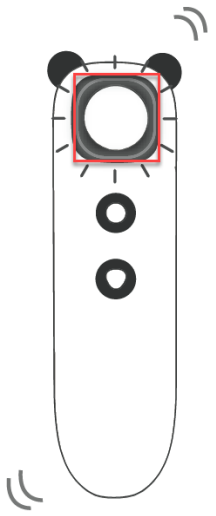
La manette pourrait présenter un dysfonctionnement après une utilisation prolongée, veuillez suivre les instructions ci-dessous pour l'étalonner afin de conserver un contrôle précis.

1. Commencez l'étalonnage.

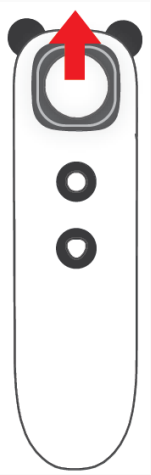
   Appuyez sur le bouton pendant 2 secondes.



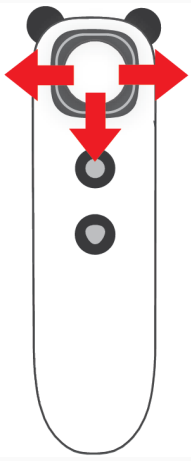
Le voyant clignote alternativement en bleu et vert.



2. Poussez le joystick de la manette complètement vers l'avant puis relâchez-la.

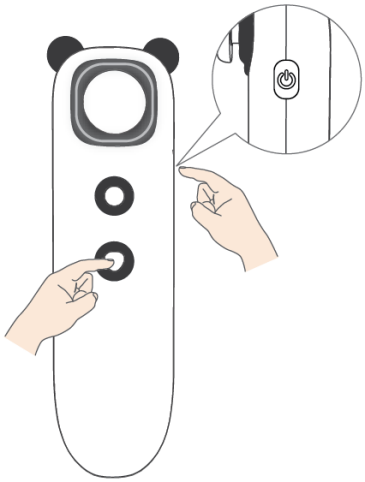


3. Poussez et tirez le joystick de la manette complètement dans les trois autres directions puis relâchez-la pour terminer l'étalonnage.



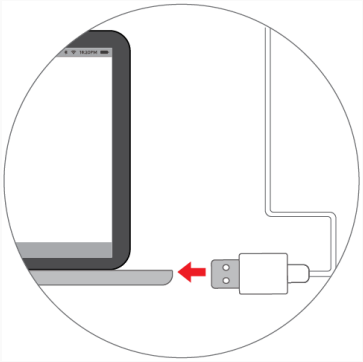
4. Quittez l'étalonnage.

   Appuyez sur le bouton pendant 2 secondes.

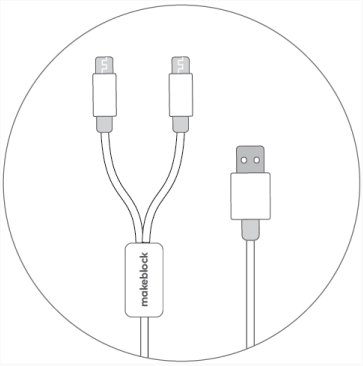


Mise à jour du microprogramme

1. Préparation à la mise à jour.



Un ordinateur doté de ports USB

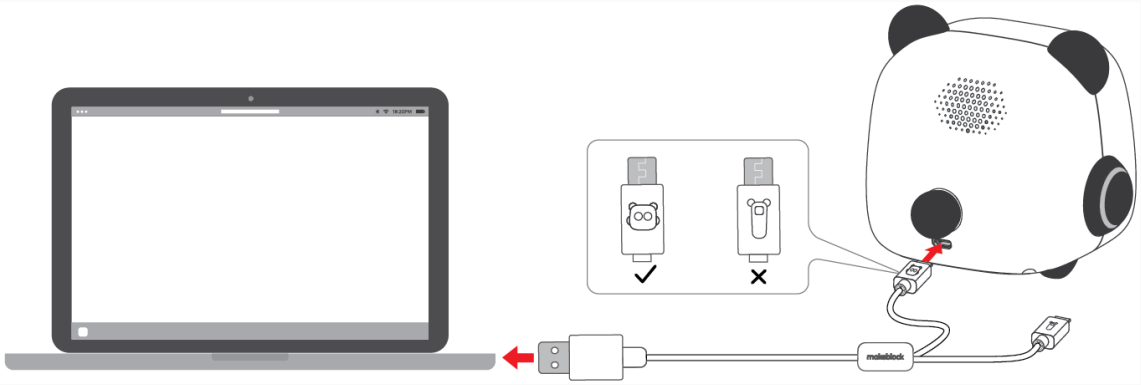


Câble USB dans la boîte

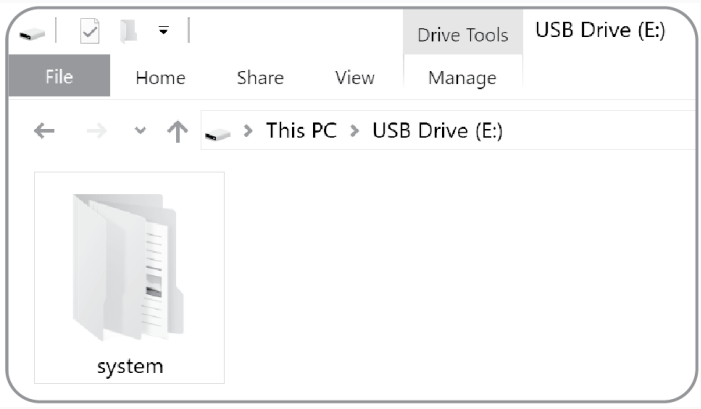
mTiny et le stylet de commande appairés (avec au moins 50 % du niveau de batterie)

2. Rendez-vous à l'adresse https://www.makeblock.com/support/ps-mtiny#firmware et téléchargez le dernier fichier de mise à jour du microprogramme.

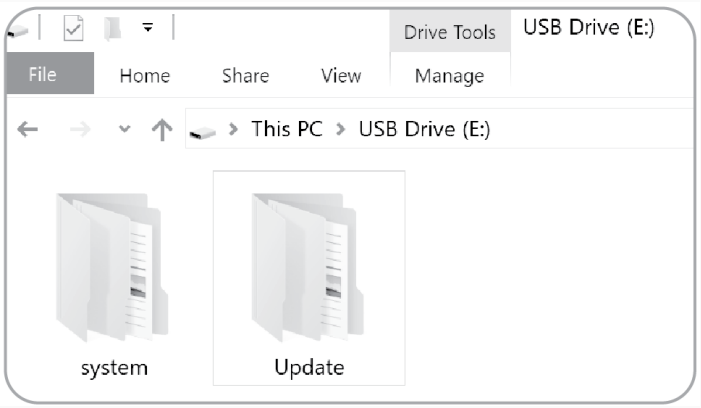
3. Utilisez le câble USB avec l'icône mTiny pour brancher mTiny à l'ordinateur.



4. Une fois branché, l'ordinateur reconnaît mTiny en tant que clé USB. Ouvrez-le, un dossier intitulé « système» s'a che.



5. Extraire le fichier de mise à jour. Cherchez le dossier intitulé « update » dans le répertoire que vous venez d'extraire. Copiez et collez l'intégralité du dossier « update » dans le répertoire racine du disque de mTiny.



6. Débranchez mTiny de l'ordinateur.

7. Redémarrez mTiny et le stylet de commande. Le processus de mise à jour débutera automatiquement.
   Le processus de mise à jour dure 3 à 5 minutes. Soyez patient.

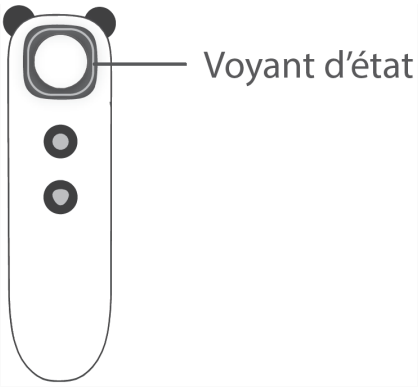
Un son vous indiquera que la mise à jour est réussie.

> Pendant le processus de mise à jour, mTiny vérifie automatiquement la connexion avec le stylet de commande et le niveau de batterie actuel. Le processus pourrait s'interrompre si les conditions ne sont pas satisfaites. Veuillez relancer l'appairage ou recharger la batterie.

Mise à jour terminée. Essayez les nouvelles fonctionnalités de mTiny!

État du voyant

Voyant bleu à pulsations	Mode veille
Voyant rouge à pulsations	Chargement
Voyant vert fixe	Chargement terminé
Voyant rouge clignotant	Batterie faible
Voyant bleu clignotant	Non appairé avec le stylet de commande
Le voyant clignote alternativement en rouge et bleu	Appairage en cours avec le stylet de commande
Voyant bleu fixe	Appairage réussi



Voyant bleu à pulsations	Mode veille
Voyant rouge à pulsations	Chargement
Voyant vert fixe	Chargement terminé
Voyant rouge clignotant	Batterie faible
Voyant bleu clignotant	Non appairé avec mTiny
Le voyant clignote alternativement en rouge et bleu	Appairage en cours avec mTiny
Voyant bleu fixe	Appairage réussi

Mises en garde

- Le produit est recommandé pour les enfants âgés de plus de 4 ans.
- Ne laissez pas un enfant de moins de 3 ans utiliser le produit.
- Un adulte doit être présent lorsque les enfants utilisent le produit.
- Pour éviter tout risque de chute qui endommagerait le produit, ne le placez pas sur un rebord en hauteur.
- Pour éviter toute défaillance du produit, ne le démontez pas, ne le réparez pas et ne le modifiez pas vous-même.
- La batterie n'est pas remplaçable.
- Pour éviter toute défaillance du produit ou danger, ne mettez pas le produit dans l'eau ou le feu, et ne l'exposez pas à un environnement humide ou à haute température.
- N'utilisez pas et ne chargez pas le produit à une température supérieure à la plage de température de fonctionnement.
- Veuillez charger complètement le produit avant de le laisser inactif, et rechargez-le au moins une fois tous les 3 mois.
- Veuillez utiliser l'adaptateur recommandé (adaptateur 5 V/2 A) pour recharger le produit.
- L'adaptateur d'alimentation (non inclus dans la boîte) n'est pas un jouet.
- Une mauvaise utilisation de l'adaptateur présente un risque de choc électrique.

- Éteignez et débranchez le produit de l'alimentation externe avant de le nettoyer avec un liquide.
- Ne branchez pas le produit à plus que le nombre de blocs d'alimentation recommandé.
- Ce produit ne doit être rechargé que sous la surveillance d'un adulte.
- Vérifiez régulièrement que les câbles, les prises, le boîtier et les autres composants ne sont pas endommagés. Arrêtez immédiatement d'utiliser le produit en cas de dommages et faites–le réparer.
- Le jouet doit uniquement être connecté à des équipements « Class II » portant le symbole « ⧈ ».
- Des dysfonctionnements peuvent survenir lorsque le produit est rechargé à une température inférieure à 0 ˚C ou supérieure à 40 ˚C.

Spécifications

Batterie (mTiny)	Batterie au lithium de 1800 mAh
Tension d'entrée micro USB (mTiny)	5 V CC
Courant d'entrée micro USB (mTiny)	1,5 A
Batterie (stylet de commande)	Batterie au lithium de 300 mAh
Tension d'entrée micro USB (stylet de commande)	5 V CC
Courant d'entrée micro USB (stylet de commande)	270mA
Mode de transmission	2,4 Ghz
Plage de fréquences	2 400 MHz à 2 480 MHz
Distance de fonctionnement	Dans un rayon de 10 mètres (dans un espace ouvert)
Température de fonctionnement	0 ˚C à –40 ˚C
Température de stockage	–10 ˚C à –55 ˚C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

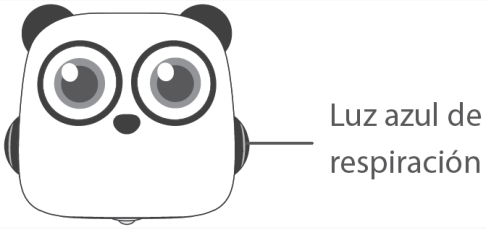
DÉCLARATION DE CONFORMITÉ

Déclaration de conformité Makeblock Co., Ltd. déclare par la présente que ce produite est conforme aux principales exigences et autres dispositions pertinentes de la directive Directive RED 2014/53/UE et de la directive RoHS 2011/65/UE.

ES-Instrucciones de seguridad

Inactividad/Actividad

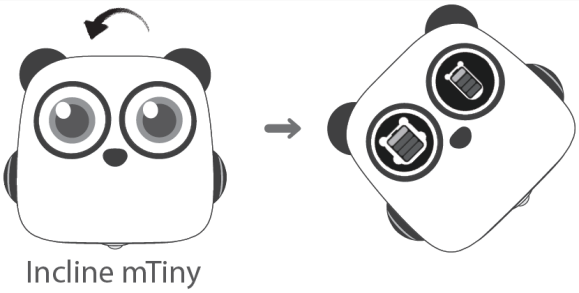
Cuando la pantalla está apagada y el indicador lateral se enciende en un estado de luz azul de respiración, significa que mTiny está descansando.



Mueva la palanca de mando del lápiz controlador o agite mTiny para reanimarlo.

Revise el nivel de la batería

Incline mTiny por un momento, se mostrará el nivel de batería de mTiny y el controlador del lápiz táctil.

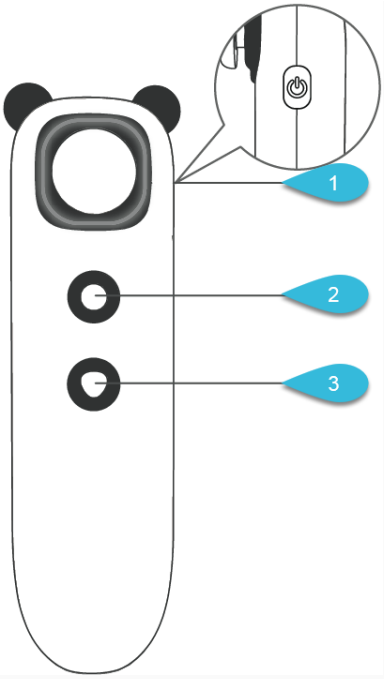


Instrucción de botón

1: Botón de encendido
Mantenga presionado el botón para encender o apagar el lápiz controlador táctil.

2: Botón de confirmación
Ejecute el programa ingresado , o repita el último programa.

3: Botón de paro

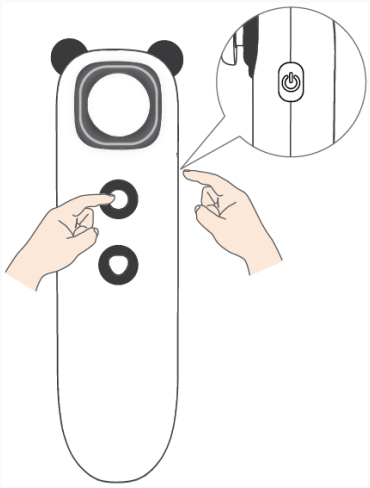


Detiene la acción que mTiny está haciendo.

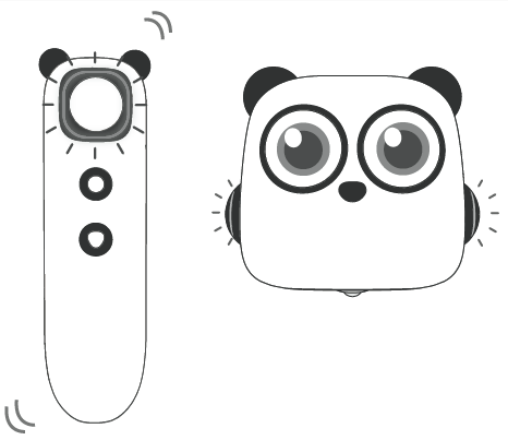
Emparejamiento

Antes de emparejar, reinicie el robot y el lápiz controlador táctil. Luego siga las instrucciones para completar el emparejamiento:

1. Mantenga presionado los dos botones durante 2 segundos.



2. Coloque el lápiz controlador táctil cerca del mTiny para iniciar el emparejamiento. La luz indicadora parpadeará alternativamente en azul y rojo.

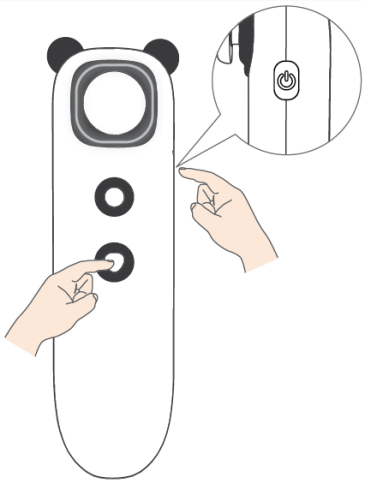


Emparejamiento exitoso: Un luz indicadora permanece encendida en azul.

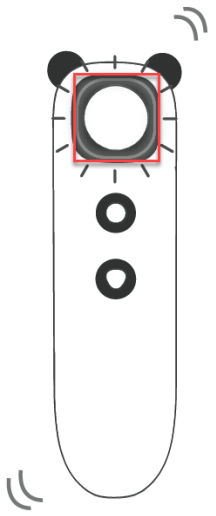
Calibración de la palanca de mando

La palanca de mando podria funcionar erróneamente después de un uso prolongado, siga las instrucciones para recalibracion.

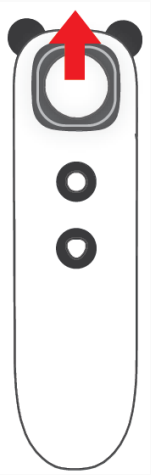
1. Ingrese el estado de calibración.
   Mantenga presionado los dos botones durante 2 segundos.



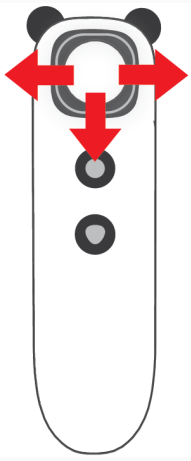
la luz indicadora parpadea alternativamente en azul y verde.



2. Empuje la palanca de mando completamente hacia adelante y luego suéltelo.

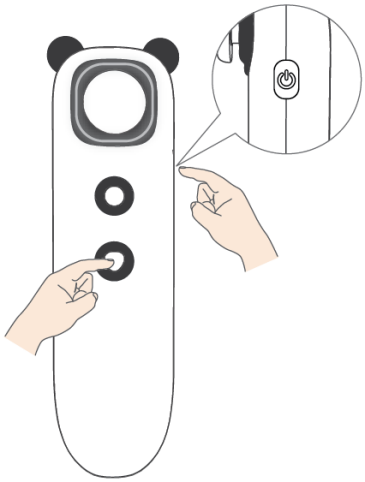


3. Empuje y hale de la palanca de mando completamente en las tres direcciones y luego suelte para completar la calibración.



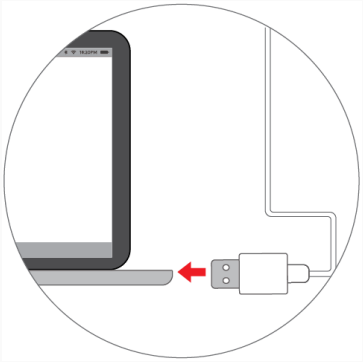
4. Salga de la calibración.

   Mantenga presionado los dos botones durante 2 segundos.

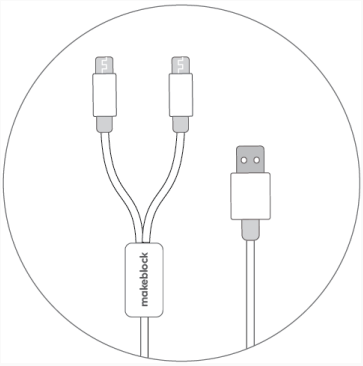


Actualización de software

1. Preparación para la actualización.



Una computadora con interfaz USB

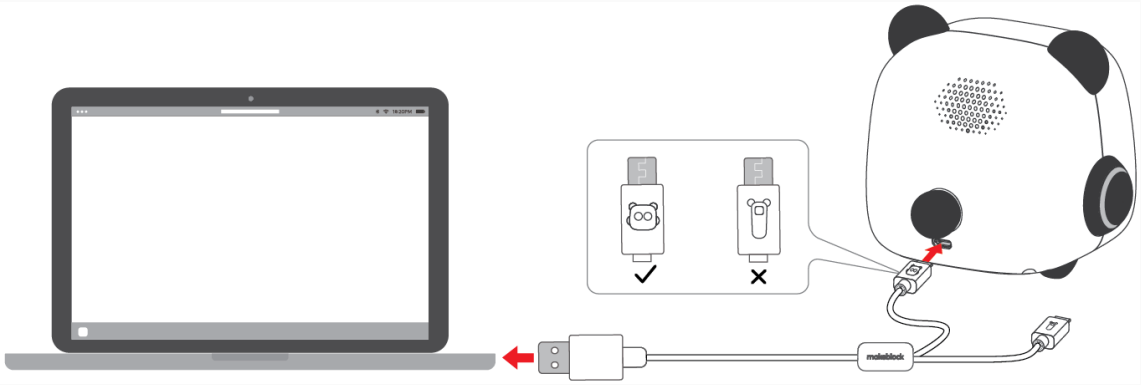


Cable USB en el paquete del producto

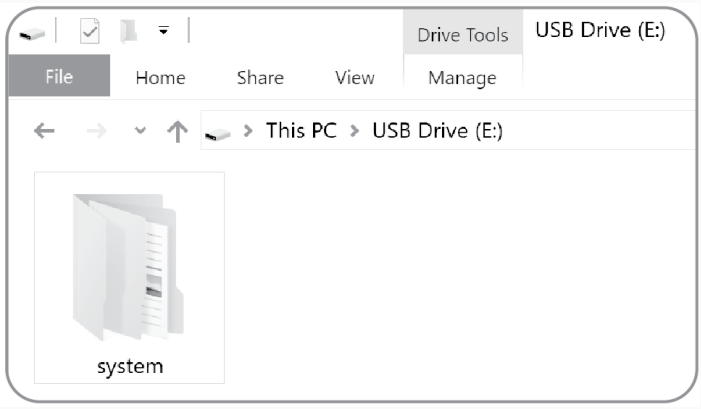
mTiny emparejado con el lápiz controlador táctil
(más del 50% nivel de la batería
)

2. Inicie la página https://www.makeblock.com/support/ps-mtiny#firmware y descargue el último paquete de software de actualización.

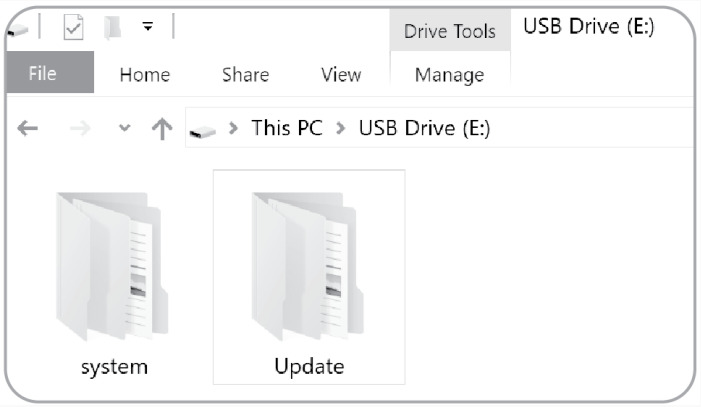
3. Conecte el robot mTiny a la computadora con el cable USB con el ícono de mTiny.



4. Después de que la conexión y la identificación sea exitosa, la computadora reconocerá mTiny como un dispositivo USB. abra el dispositivo y verá una carpeta llamada "sistema".



5. Descomprima el paquete de actualización. Encuentre la carpeta llamada "actualizar" . Copie toda la carpeta de "actualización" y colóquela en el directorio raíz de mTiny.



6. Desconecte mTiny de la computadora.

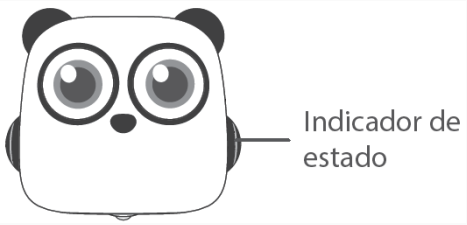
7. Reinicie mTiny y el lápiz controlador táctil, y después del reinicio, mTiny se actualizará automáticamente.

   El proceso de actualización toma de 3 a 5 minutos. Por favor, espere con paciencia. Habrá una notificación de audio cuando la actualización se exitosa.

Durante el proceso de actualización, mTiny verificará automáticamente la conexión de mTiny y el
lápiz controlador táctil, y si la batería es suficiente. El proceso podría detenerse si no se cumplen esas condiciones. Por favor, vuelva a conectar o cargar.

Actualización finalizada. ¡Pruebe las nuevas funciones de mTiny!

Estado del indicador



Luz azul de respiración	Modo de Inactividad
Luz roja de respiración	Cargando
Luz verde fija encendida	Carga completa
Luz roja parpadeante	Batería baja
Luz azul parpadeante	No emparejado con el lápiz controlador
El indicador parpadea alternativamente en rojo y azul	Emparejamiento con el lápiz controlador
Luz azul fija encendida	Emparejamiento exitoso con el lápiz controlador

Luz azul de respiración	Modo de Inactividad
Luz roja de respiración	Cargando
Luz verde fija encendida	Carga completa
Luz roja parpadeante	Batería baja
Luz azul parpadeante	Desconectado de mTiny
El indicador parpadea alternativamente en rojo y azul	Emparejando con mTiny
Luz azul fija encendida	Emparejamiento exitoso

Precauciones

- El producto está recomendado para niños mayores de 4 años.
- No permita que los niños menores de 3 años utilicen el producto.
- Los niños deben usar este producto acompañados por un adulto.
- No coloque el producto en el borde de un lugar alto para evitar daños en caso de caídas.
- No desmonte, repare ni modifique el producto para evitar el funcionamiento incorrecto del producto.
- La batería no es reemplazable.
- No exponga el producto al agua o fuego, ni lo exponga a un ambiente húmedo o alta temperatura para evitar fallas en el producto o accidentes de seguridad.
- No utilice ni cargue el producto a una temperatura que excede el rango de temperatura de funcionamiento.
- Cargue completamente el producto antes de dejarlo inactivo, y cárguelo al menos una vez cada 3 meses.
- Utilice el adaptador recomendado (5V/2A) para cargar el producto.
- Los adaptadores utilizados para cargar este producto (no incluidos en el paquete) no deben ser usados como juguetes.
- El uso incorrecto del adaptador puede provocar un riesgo de descarga eléctrica.
- Apague y desconecte el producto de cualquier equipo electrónico externo antes de limpiarlo con líquido.
- El producto no se puede conectar con otros equipos electrónicos mas que los recomendados.
- Este producto solo se puede cargar bajo la supervisión de un adulto.
- Revise regularmente si los cables, enchufes, carcasas y otros componentes se encuentran dañados. Deje de usarlos hasta que sean reparados.
- El juguete sólo se debe conectar a equipos con símbolo de Class II.

- Es posible que ocurran anomalías cuando cargue el producto a temperatura inferior a 0 ˚C o superior a 40 ˚C.

Especificaciones

Batería (mTiny)	Batería de litio de 1800mAh
Voltaje de entrada USB (mTiny)	DC 5V
Corriente de entrada micro USB (mTiny)	1,5 A
Batería (lápiz controlador táctil)	Batería de litio 300 mAh
Voltaje de entrada micro USB (lápiz controlador táctil)	DC 5V
Corriente de entrada micro USB (lápiz controlador táctil)	270 mA
Modo de comunicación	2,4 G
Rango de frecuencia	2400 MHz — 2480 MHz
Distancia de conexión	Un radio de 10 metros (en un espacio abierto)
Temperatura de funcionamiento	0˚C—40˚C
Temperatura de almacenamiento	—10˚C—+55˚C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If

this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

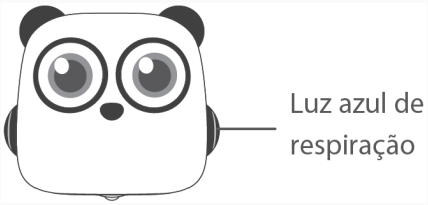
DECLARACIÓN DE CONFORMIDAD

Declaración de conformidad. Makeblock Co. Ltd. declara por la presente que este producto cumple los requisitos esenciales y otras disposiciones pertinentes de la directiva RED 2014/53/UE y la directiva RoHS 2011/65/UE.

PT-Instruções de segurança

Suspender/Acordar

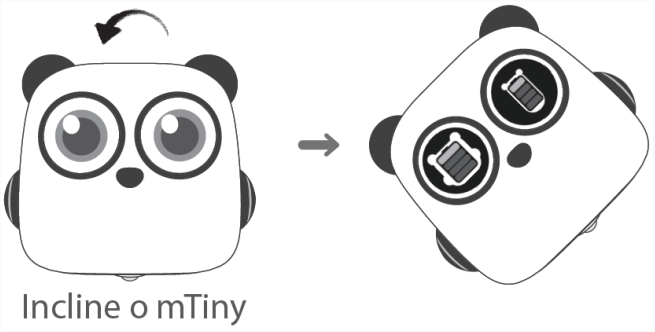
Quando a tela se apaga e o indicador lateral acende luz azul de respiração, o mTiny está descansando.



Mova o joystick do controlador de lápiz táctil ou agite o mTiny para acordá-lo.

Verificar o nível atual da bateria

Incline o mTiny por um momento, o nível de bateria do mTiny e do controlador de lápiz táctil serão exibidos.

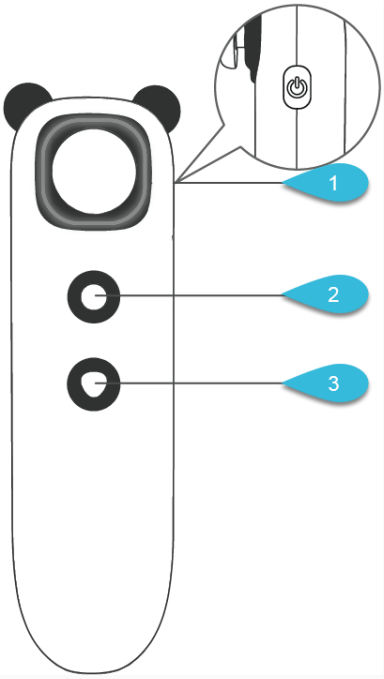


Instruções dos botões

1: Botão de energia
Mantenha pressionado o botão para ligar ou desligar controlador de lápiz táctil.

2: Botão de confirmação
Executar o programa de entrada ou repetir o último programa.

3: Botão de paragem

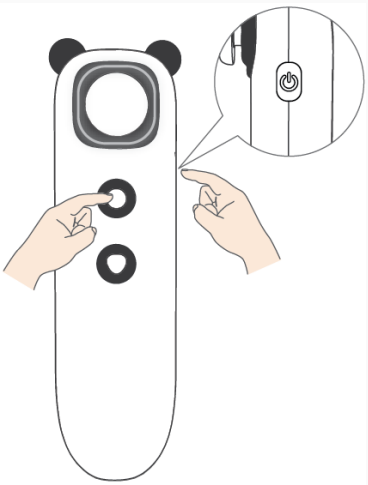


Parar a ação em curso.

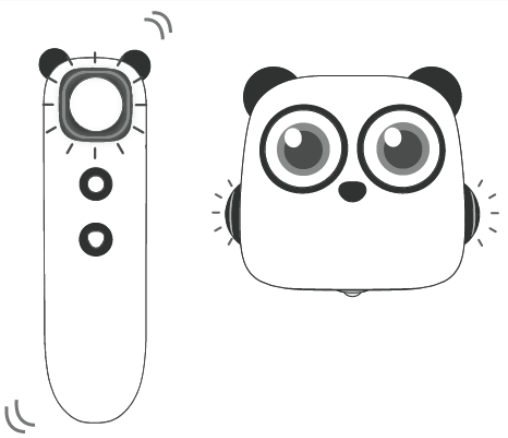
Emparelhamento

Antes de emparelhar, reinicie o robô e o controlador de lápiz táctil. Em seguida, siga as instruções abaixo para concluir o emparelhamento:

1. Pressione e segure o botão por 2 segundos.



2. Mova controlador de lápiz táctil para perto do mTiny para iniciar o emparelhamento. O indicador piscará alternadamente em azul e vermelho.



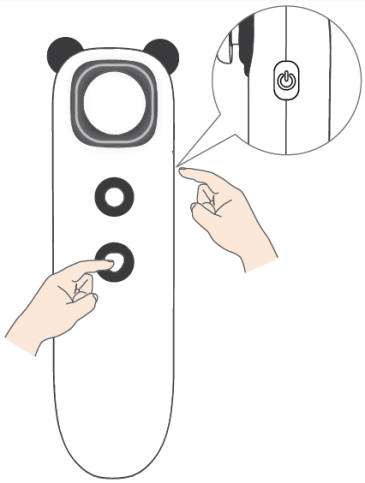
Emparelhamento sucedido Um indicador de luz azul fica aceso.

Calibragem do joystick

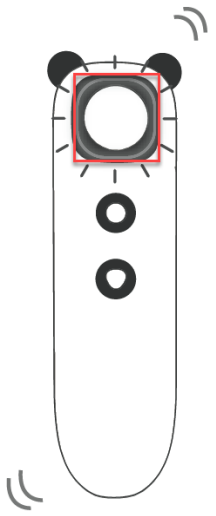
O joystick pode ter falhas de funcionamento depois de ser utilizado por um longo período, siga as instruções abaixo para o calibrar, a fim de manter um controlo preciso.

1. Iniciar a calibragem.

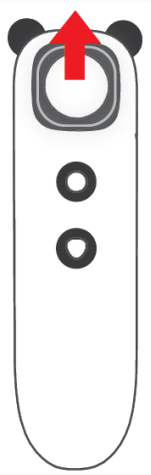
   Pressione e segure o botão por 2 segundos.



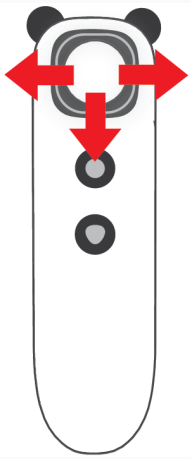
O indicador pisca alternadamente a azul e a verde.



2. Mova o joystick completamente para frente e solte-o.

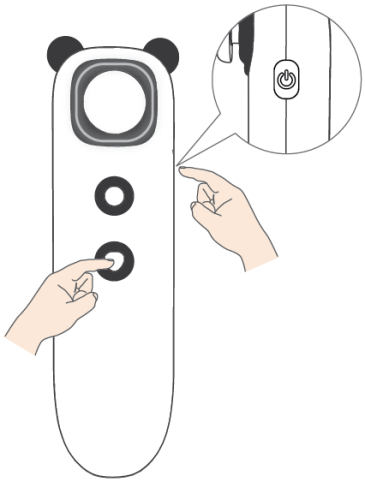


3. Mova o joystick completamente nas outras três direções e solte-o para concluir a calibragem.



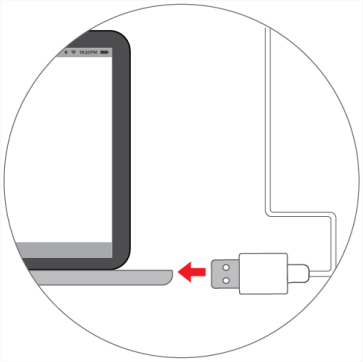
4. Sair da calibragem.

   Pressione e segure o botão por 2 segundos.

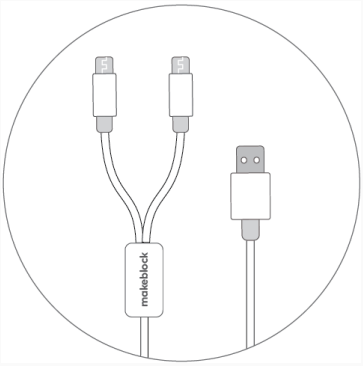


Atualização de firmware

1. Preparação para atualização.



Um computador com portas USB

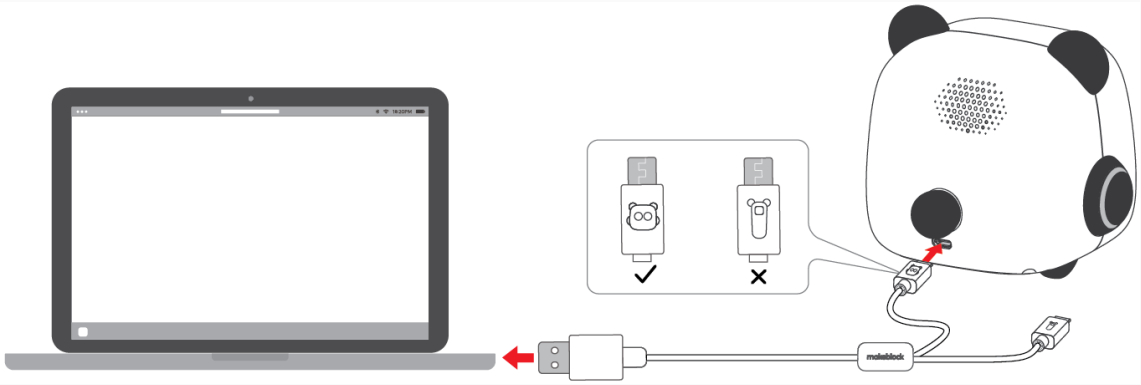


Cabo USB na embalagem do produto

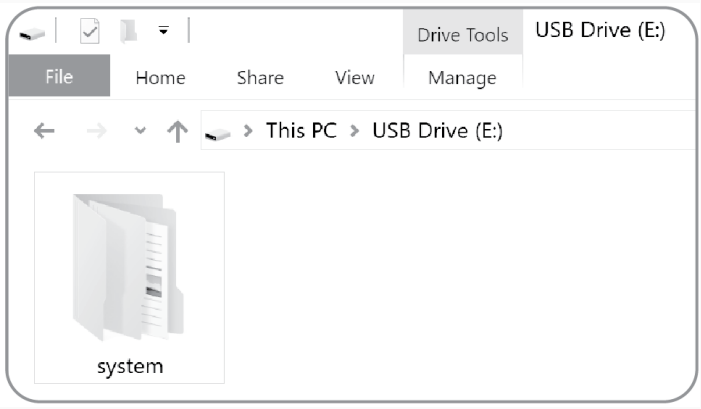
mTiny e controlador de lápiz táctil emparelhados (com pelo menos 50% do nível da bateria)

2. Visite https://www.makeblock.com/support/ps-mtiny#firmware e transfira o pacote de atualização de firmware mais recente.

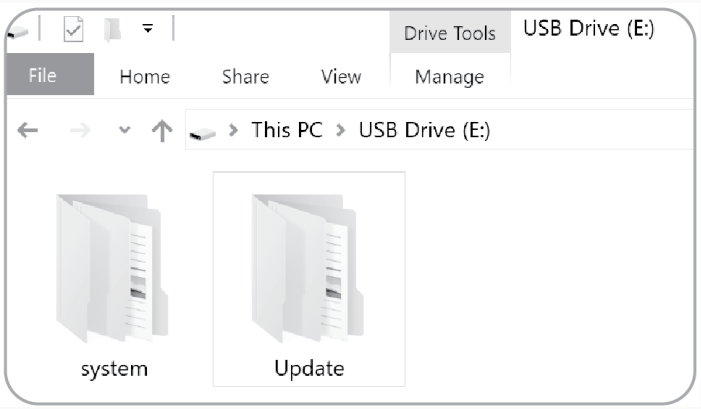
3. Use o cabo USB com o ícone mTiny para conectar o mTiny ao computador.



4. Após a conexão, o computador reconhecerá o mTiny como uma unidade USB. Abra a unidade USB, uma pasta chamada “system” será exibida.



5. Extraia o pacote de atualização. Encontre a pasta chamada “update” no diretório extraído. Copie e cole toda a pasta “update” no diretório raiz da unidade do mTiny.



6. Desconecte o mTiny do computador.

7. Reinicie o mTiny e controlador de lápiz táctil , e o processo de atualização será iniciado automaticamente.

   O processo de atualização levará 3 a 5 minutos.Espere um pouco. Um som de aviso tocará quando a atualização for sucedida.

Durante o processo de atualização, o mTiny verificará automaticamente a conexão com controlador de lápiz táctil e o nível atual da bateria. O processo pode parar se estas condições não forem cumpridas. Emparelhe novamente ou carregue a bateria.

Atualização completa. Experimente os novos recursos do mTiny!

Estado do indicador

Luz azul de respiração	Modo de Suspensão
Luz vermelha de respiração	Carregando
Luz verde acesa	Carregamento concluído
Luz vermelha pisca	Bateria fraca
Luz azul pisca	Não emparelhado com a caneta de controlo por toque
O indicador pisca alternadamente vermelho e azul	Emparelhando com a caneta de controlo por toque
Luz azul acesa	Emparelhamento sucedido

Luz azul de respiração	Modo de Suspensão
Luz vermelha de respiração	Carregando

Luz verde acesa	Carregamento concluído
Luz vermelha pisca	Bateria fraca
Luz azul pisca	Não emparelhado mTiny
O indicador pisca alternadamente vermelho e azul	Emparelhando com o mTiny
Luz azul acesa	Emparelhamento sucedido

Avisos

- O produto é recomendado para crianças acima de 4 anos de idade.
- Não permita que crianças menores de 3 anos usem o produto.
- Um adulto deve estar presente quando crianças usarem o produto.
- Não coloque o produto na borda de um local alto, a fim de evitar danos por queda.
- Não desmonte, repare ou modifique o produto sozinhamente, a fim de evitar falhas no produto.
- A bateria não é substituível.
- Não coloque o produto em água ou no fogo nem o exponha a um ambiente húmido ou a temperaturas elevadas, a fim de evitar falhas no produto ou riscos de segurança.
- Não use ou carregue o produto a uma temperatura que exceda a faixa de temperatura operacional.
- Carregue totalmente o produto antes de o deixar inativo e carregue–o pelo menos uma vez a cada 3 meses.
- Use o adaptador indicado (de 5 V/2 A) para recarregar a bateria do produto.
- O adaptador de energia (não incluído na embalagem do produto) para o produto não é um brinquedo.
- O uso incorreto do adaptador de energia pode resultar em risco de choque elétrico.
- Desligue e desconecte o produto da fonte de alimentação externa antes de limpar o produto com líquidos.
- Não conecte o produto a quantidades maiores do que a recomendada de fontes de alimentação.
- Este produto só pode ser carregado sob a supervisão de um adulto.
- Verifique regularmente os cabos, as fichas, a caixa e outros componentes quanto a qualquer dano. Pare de usar o produto imediatamente se ocorrer algum dano e o envie–o para reparação.
- Este brinquedo só deve ser conectado a equipamentos Class II que possuam o seguinte símbolo “⧈”.
- Podem ocorrer falhas quando o produto for carregado a uma temperatura inferior a 0°C ou superior a 40°C.

Especificações

Bateria (mTiny)	Bateria de lítio, 1,800 mAh
Tensão de entrada micro USB (mTiny)	5 V CC
Corrente de entrada micro USB (mTiny)	1,5 A
Bateria (controlador de lápiz táctil)	300 mAh lithium battery
Tensão de entrada micro USB (caneta de controlo por toque)	5 V CC
Corrente de entrada micro USB (caneta de controlo por toque)	270 mA
Modo de transmissão	2.4G
Faixa de frequência	2400MHz—2480MHz
Distância de funcionamento	Dentro de um raio de 10 metros (em campo aberto)
Temperatura de funcionamento	0˚C—40˚C
Temperatura de armazenamento	—10˚C—+55˚C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be

determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

DECLARAÇÃO DE CONFORMIDADE

Declaração de conformidade. Pelo presente, a Makeblock Co., Ltd., declara que este produto está em conformidade com os requisitos essenciais e outras disposições relevantes da Diretiva RED 2014/53/UE e da Diretiva RoHS 2011/65/UE.

DE-Инструкции за безопасност

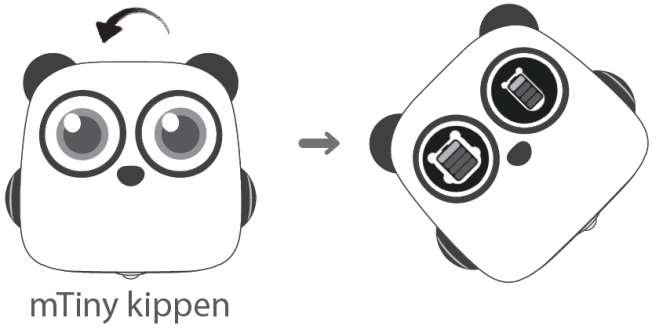
Активиране/деактивиране на режим на заспиване

Когато дисплеите се изключат и страничните индикатори засветят в синьо, mTiny е в режим на заспиване.

Преместете джойстика на върха на писалката или разклатете mTiny, за да го събудите.

Проверете текущото състояние на зареждане на батерията

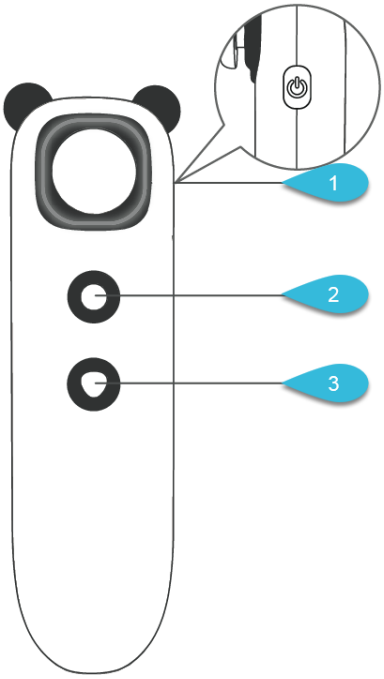
Когато наклоните mTiny за известно време, той ще покаже степента на зареждане на батерията си и тази на писалката със сензорен контролер.



Забележка за бутона

1: Бутон за захранване
Натиснете продължително бутона, за да включите или изключите управлението на писалката.

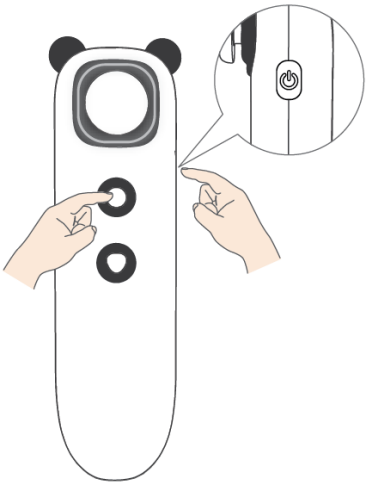
2: Бутон за потвърждение
Стартирайте въведената програма или повторете последната програма.



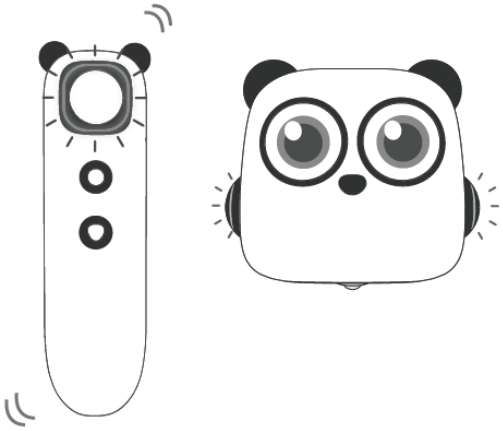
3: Бутон за спиране
Спрете текущото действие.

Сдвояване

Рестартирайте, преди да свържете робота и писалката. След това следвайте инструкциите по-долу, за да завършите сдвояването:
1. Натиснете и задръжте бутона за 2 секунди.



2. Преместете върха на писалката близо до mTiny, за да стартирате сдвояването. Индикаторът ще мига последователно в синьо и червено.

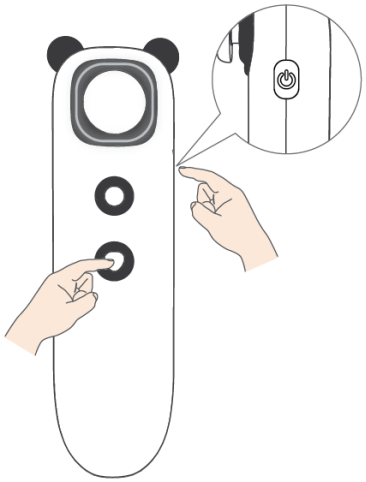


Сдвояването е успешно, ако светлинният индикатор свети непрекъснато в синьо.

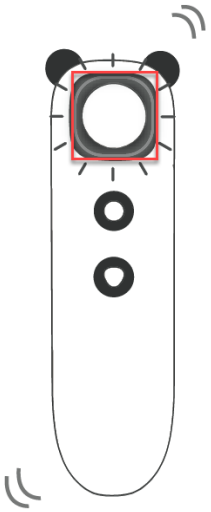
Калибриране на джойстика

Джойстикът може да се държи неправилно след продължителна употреба. Моля, следвайте инструкциите по-долу, за да го калибрирате и да осигурите прецизен контрол.

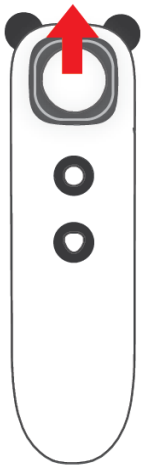
1. Започнете калибриране.
Натиснете и задръжте бутона за 2 секунди.



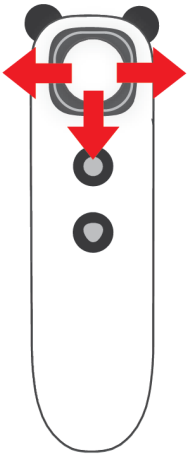
Индикаторът свети последователно в синьо и зелено.



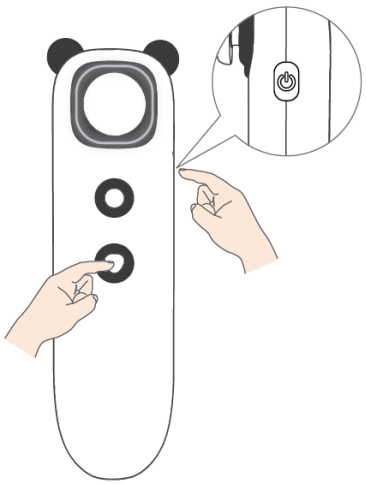
2. Натиснете джойстика за управление напред и след това го освободете.



3. Натиснете/издърпайте управлението на джойстика в другите три посоки и го освободете, за да завършите калибрирането.

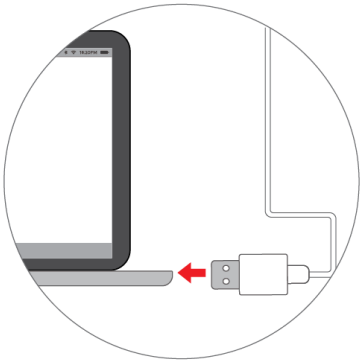


4. Излезте от калибрирането.
Натиснете и задръжте бутона за 2 секунди.

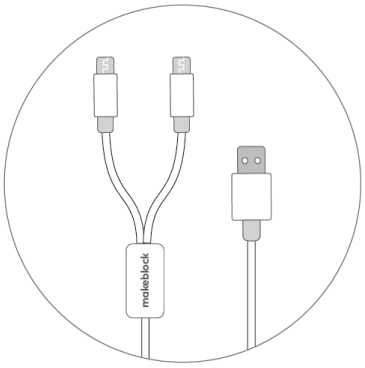


Актуализация на фърмуера

1. Подготовка за актуализация.



Компютър с USB портове

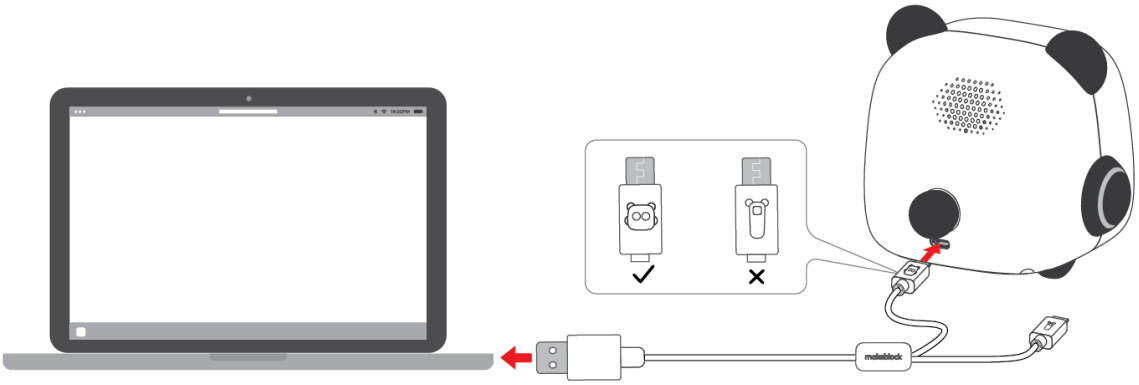


USB кабел в опаковката на продукта

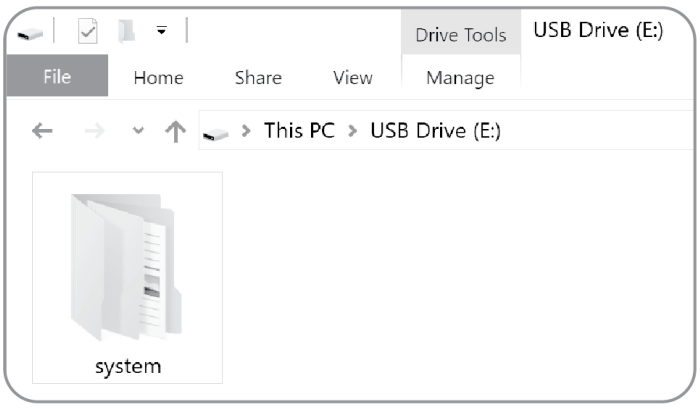
Сдвоен контролер mTiny и стилус (с поне 50% ниво на батерията)

2. Отидете на https://www.makeblock.com/support/ps-mtiny#firmware и го изтеглете
Изтеглете най-новия пакет за актуализация на фърмуера.

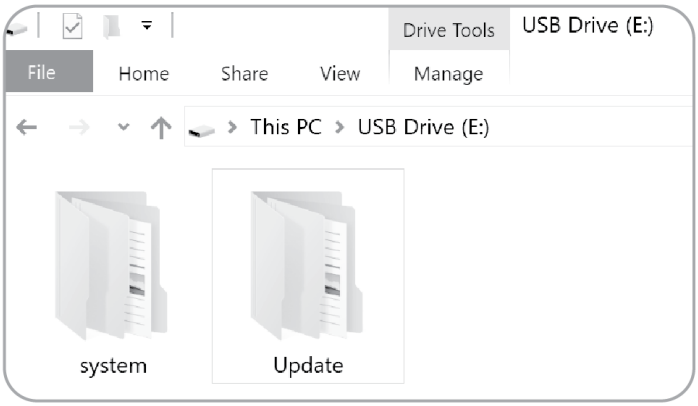
3. Използвайте USB кабела със символа mTiny, за да свържете mTiny към компютъра.



4. Веднъж свързан, компютърът ще разпознае mTiny като USB твърд диск. Когато го отворите, се показва папка "Система".



5. Разархивирайте пакета за актуализация. Намерете папката „Актуализиране“ в папката. Копирайте и поставете цялата папка „Update“ в корена на твърдия диск на mTiny.



6. Изключете mTiny от вашия компютър.

7. Рестартирайте mTiny и писалката със сензорен контролер. Това автоматично ще стартира процеса на актуализиране.
Процесът на актуализиране отнема от 3 до 5 минути.

Ще прозвучи звуков сигнал, след като актуализацията е успешна.

По време на процеса на актуализиране mTiny автоматично ще провери връзката с писалката и текущото ниво на батерията. Процесът може да бъде прекъснат, ако тези условия не са изпълнени. Моля, сдвоете отново или заредете батерията.

Актуализацията е завършена? Изпробвайте новите функции на mTiny!

Състояние на дисплея

Синя дишаща светлина	Спящ режим
Червена дишаща светлина	Зарежда се
Свети зелена светлина постоянно	Зареждането приключи
Мига червена светлина	Изтощена батерия
Мига синя светлина	Не се сдвоява с писалката със сензорен контролер
Дисплеят свети последователно в червено и синьо	Свързва се с писалката
Синята светлина свети постоянно	Сдвояването е успешно

Синя дишаща светлина	Спящ режим
Червена дишаща светлина	Зарежда се
Свети зелена светлина постоянно	Зареждането приключи
Мига червена светлина	Изтощена батерия
Мига синя светлина	Не се сдвоява с писалката със сензорен контролер
Дисплеят свети последователно в червено и синьо	Сдвояване с mTiny
Синята светлина свети постоянно	Сдвояването е успешно

Внимание

- Този продукт се препоръчва за деца над 4 години.
- Деца под 3 години не могат да използват този продукт.
- При използване на продукта винаги трябва да присъства възрастен.

- Не разглобявайте, ремонтирайте или модифицирайте продукта сами, за да избегнете дефекти на продукта.

- Батерията не може да се смени.
- Не поставяйте продукта във вода или огън и не го излагайте на влажно място или гореща среда, за да избегнете дефекти на продукта или опасности за безопасността.
- Не използвайте и не зареждайте продукта при температури над работния температурен диапазон.
- Моля, заредете напълно продукта, преди да го оставите неактивен и го зареждайте поне на 3 месеца.

- Устройството може да се зарежда само с препоръчания захранващ адаптер (5 V/2 A).
- Захранващият адаптер (не е включен в опаковката на продукта) за продукта не е играчка.
- Неправилното използване на захранващия блок може да доведе до риск от токов удар.

- Моля, изключете продукта и го разкачете от външното захранване, преди да го почистите с течност.

- Не свързвайте продукта към повече от препоръчаното количество захранващи адаптери.
- Този продукт трябва да се зарежда само под наблюдение на възрастен.
- Проверявайте редовно кабелите, съединителите, корпуса и другите компоненти за повреди. Ако възникне повреда, незабавно спрете да използвате продукта и го занесете на ремонт.

- Играчката може да се свързва само към устройства от клас II, маркирани със следния символ „*“.

- Възможно е да възникнат грешки, ако продуктът се зарежда при температура под 0°C или над 40°C.

Технически данни

Батерия (mTiny)	1800mAh литиева батерия
Micro USB входно напрежение (mTiny)	DC 5V
Micro USB входна мощност (mTiny)	1,5 A
Батерия (писалката със сензорен контролер)	300mAh литиева батерия
Micro USB входно напрежение (писалка със сензорен контролер)	DC 5V
Micro USB входна мощност (писалка със сензорен контролер)	270 mA
Режим на прехвърляне	2,4 G
Честотен диапазон	2400 MHz до 2480 MHz
Работно разстояние	В радиус от 10 метра (или на открито)
Работна температура	0°C до -40°C
Температура на съхранение	-10 °C до -55 °C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void

the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

CE

ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ

Декларация за съответствие Makeblock Co., Ltd. с настоящото декларира, че този продукт отговаря на основните изисквания и други приложими разпоредби на Директива RED 2014/53/EU и Директива RoHS 2011/65/EU.

RU-Инструкции по технике безопасности

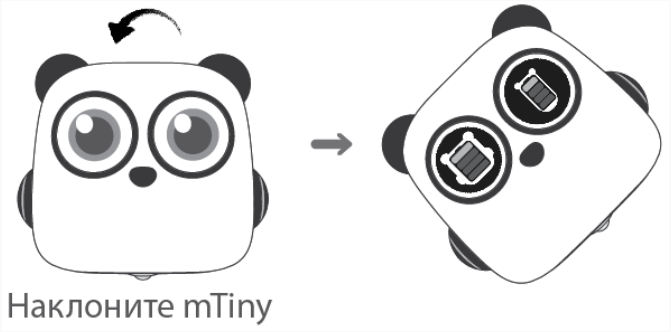
Режим ожидания/возврат в рабочий режим

Отключение дисплеев и включение быстрого мигания синих боковых индикаторов означает, что mTiny перешел в режим ожидания.

Переместите джойстик на контроллере или встряхните mTiny, чтобы вернуть его в рабочий режим.

Проверьте уровень заряда аккумулятора

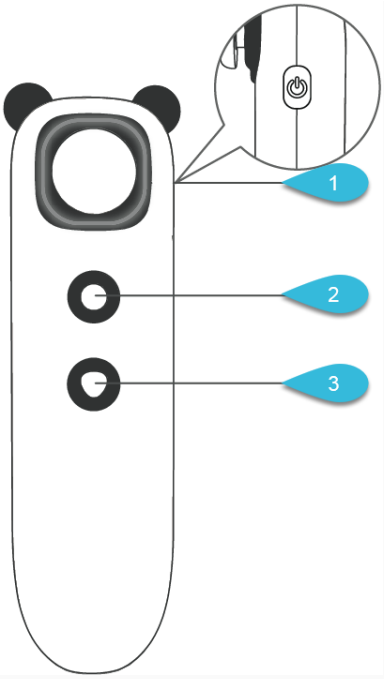
Наклоните mTiny и удерживайте его некоторое время в таком положении, после чего на mTiny и сенсорном контроллере отобразится уровень заряда аккумулятора.



Инструкции по кнопкам

1: Кнопка питания
Нажмите и удерживайте кнопку, чтобы включить или отключить контроллер.

2: Кнопка подтверждения
Запустите введенную программу или повторите последнюю программу.



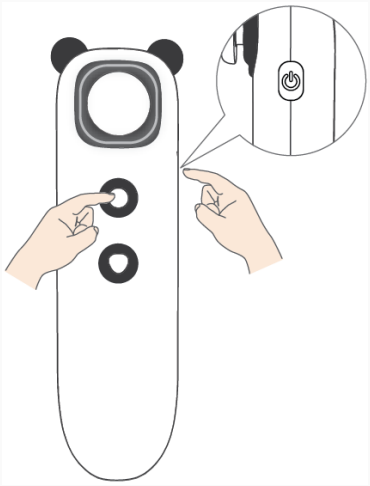
3: Кнопка остановки

Остановка выполняемого действия.

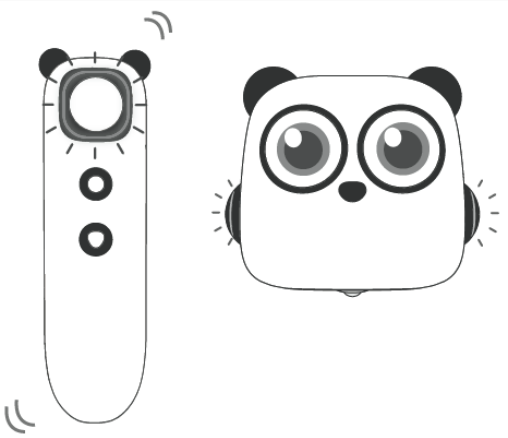
Сопряжение

Перед сопряжением перезапустите робота и сенсорный контроллер. Затем следуйте приведенным ниже инструкциям, чтобы выполнить сопряжение.

1. Нажмите и удерживайте эту кнопку в течение 2 секунд.



2. Переместите сенсорный контроллер ближе к mTiny, чтобы начать сопряжение. Индикатор начнет мигать попеременно синим и красным цветом.



Сопряжение успешно завершено

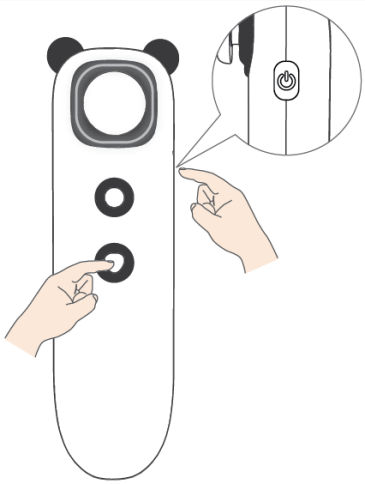
Синий индикатор горит, не мигая.

Калибровка джойстика

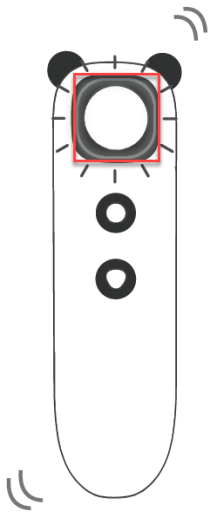
Джойстик может неправильно срабатывать после длительного использования. Выполните приведенные ниже инструкции, чтобы настроить его для повышения точности управления.

1. Начните калибровку.

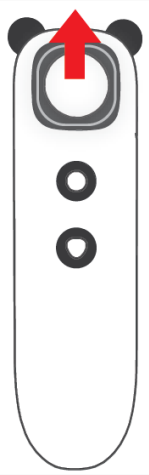
   Нажмите и удерживайте эту кнопку в течение 2 секунд.



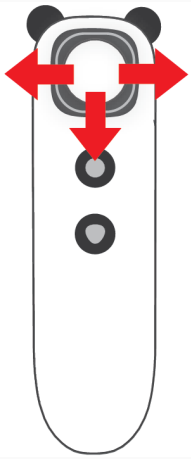
Индикатор начнет мигать попеременно синим и зеленым цветом.



2. Нажмите джойстик до упора вперед, затем отпустите.

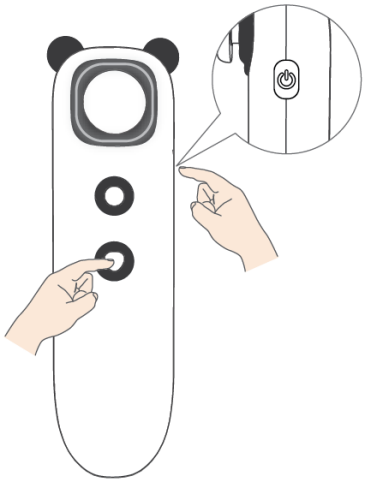


3. Индикатор начнет мигать попеременно синим и зеленым цветом.



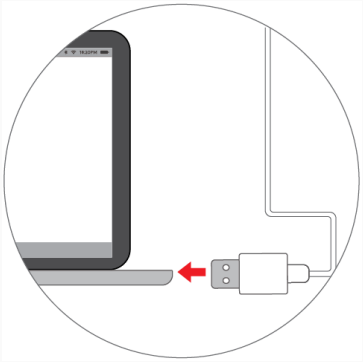
4. Завершите калибровку.

   Нажмите и удерживайте эту кнопку в течение 2 секунд.

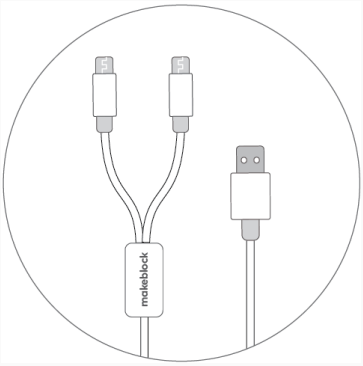


Обновление микропрограммы

1. Подготовка к обновлению.



Компьютер с портами USB

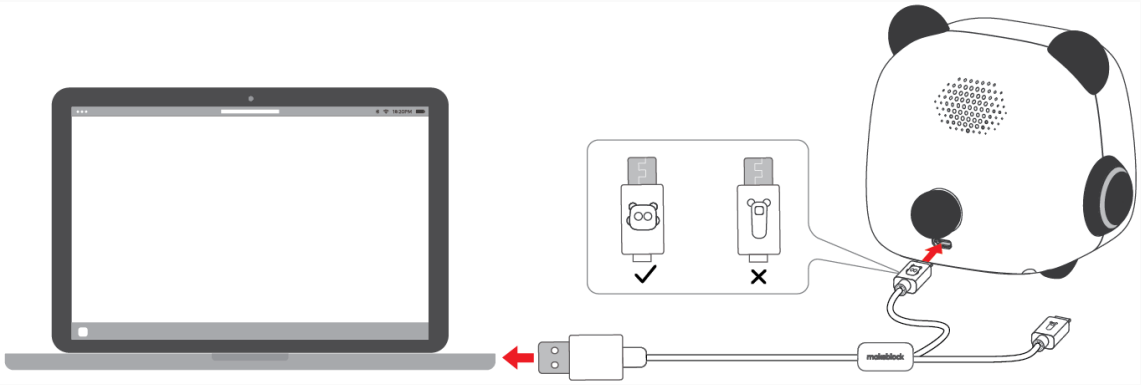


Кабель USB в пакете с устройством

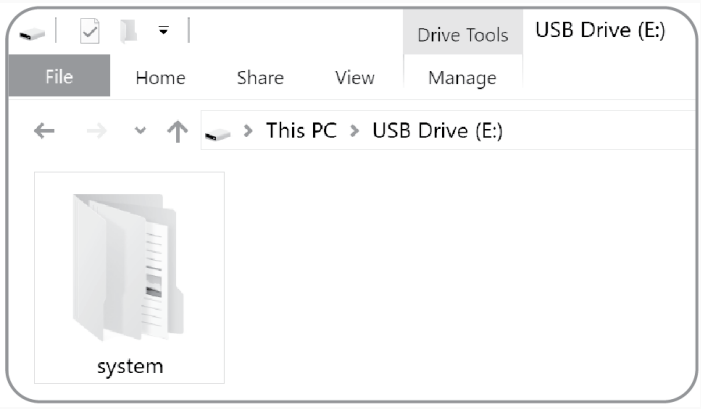
Сопряженный mTiny и сенсорный контроллер (с уровнем заряда не менее 50 %)

2. Перейдите на страницу https://www.makeblock.com/support/ps-mtiny#firmware и загрузите последнюю версию пакета программного обеспечения.

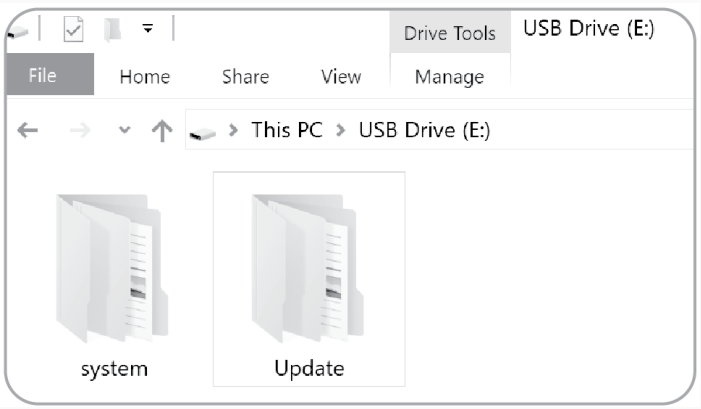
3. Используйте кабель USB со значком mTiny для подключения mTiny к компьютеру.



4. После подключения компьютер распознает mTiny как накопитель USB. Откройте его и найдите папку с именем System.



5. Извлеките пакет обновления. Найдите папку с именем Update в извлеченном каталоге. Скопируйте и вставьте всю папку Update в корневой каталог диска mTiny.



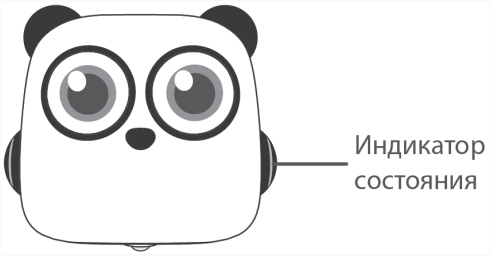
6. Отсоедините mTiny от компьютера.

7. Перезапустите mTiny и контроллер, после чего обновление начнется автоматически. Процесс обновления может занять от 3 до 5 минут. Дождитесь его завершения. После успешного обновления раздастся звуковой сигнал.

Во время обновления mTiny автоматически проверит подключение к сенсорному контроллеру и текущий уровень заряда аккумулятора. Процесс может быть остановлен, если эти условия не соблюдаются. Выполните сопряжение повторно или зарядите аккумулятор.

Обновление завершено. Опробуйте новые функции mTiny!

Состояние индикатора



Быстро мигающий синий индикатор	Режим ожидания
Быстро мигающий красный индикатор	Подзарядка
Непрерывно горящий зеленый индикатор	Подзарядка завершена
Мигающий красный индикатор	Низкий заряд аккумулятора
Мигающий синий индикатор	Нет сопряжения с контроллером
Индикатор мигает попеременно синим и зеленым цветом	Сопряжение с контроллером
Непрерывно горящий синий индикатор	Сопряжение успешно завершено

Быстро мигающий синий индикатор	Режим ожидания
Быстро мигающий красный индикатор	Подзарядка

Непрерывно горящий зеленый индикатор	Подзарядка завершена
Мигающий красный индикатор	Низкий заряд аккумулятора
Мигающий синий индикатор	Нет сопряжения с mTiny
Индикатор мигает попеременно синим и зеленым цветом	Сопряжение с mTiny
Непрерывно горящий синий индикатор	Сопряжение успешно завершено

Внимание!

- Устройство рекомендуется для детей старше 4 лет.
- Не разрешайте детям до 3 лет пользоваться этим устройством.
- Дети должны работать с устройством в присутствии взрослых.
- Не размещайте устройство на краю высоко расположенных поверхностей, чтобы оно не было повреждено при падении.
- Не пытайтесь разобрать, отремонтировать или модифицировать устройство самостоятельно во избежание его сбоев.
- Аккумулятор не подлежит замене.
- Не бросайте устройство в огонь или воду, не подвергайте его высоким температурам или воздействию сред с повышенной влажностью во избежание сбоя устройства и возникновения опасности для пользователей.
- Не используйте и не заряжайте устройство при температуре, превышающей указанную температуру эксплуатации.
- Полностью зарядите устройство, прежде чем перестать им пользоваться в течение длительного времени, затем заряжайте его каждые 3 месяца.
- Для зарядки устройства используйте рекомендованный адаптер (5 В/2 А).
- Адаптер питания (не входит в комплект поставки) для устройства не является игрушкой.
- Ненадлежащее использование адаптера питания может привести к поражению электрическим током.
- Перед очисткой устройства моющими средствами завершите работу устройства и отсоедините его от внешнего источника питания.
- Не подсоединяйте продукт к источникам питания, характеристики которых отличаются от рекомендованных.
- Устройство можно заряжать только в присутствии взрослых.
- Регулярно проверяйте кабели, разъемы, корпус и другие компоненты на предмет повреждений. При возникновении повреждения незамедлительно перестаньте использовать устройство и обратитесь в сервис для его ремонта.

- Игрушку можно подключать только к оборудованию Class II, обозначенному символом ⧈.
- При зарядке устройства в температурной среде ниже 0°C или выше 40 °C могут возникать сбои.

Технические характеристики

Аккумулятор (mTiny)	Литиевый аккумулятор 1800 мА·ч
Входное напряжение на разъеме Micro USB (mTiny)	5 В пост. тока
Входной ток разъема Micro USB (mTiny)	1,5 А
Аккумулятор (сенсорный контроллер)	литиевый аккумулятор 300 мА·ч
Входное напряжение на разъеме Micro USB (сенсорный контроллер)	5 В пост. тока
Входной ток на разъеме Micro USB (сенсорный контроллер)	270 мА
Режим передачи	2,4G
Диапазон рабочих частот	2400—2480 МГц
Радиус действия	10 м (на открытом пространстве)
Рабочая температура	от 0 до 40 °C
Температура хранения	от –10 до 55 °C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in

accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

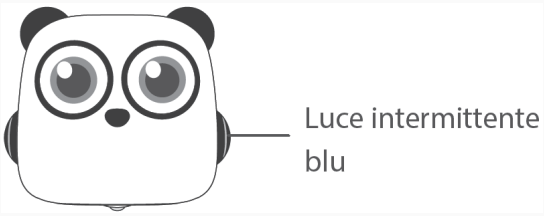
ЗАЯВЛЕНИЕ О СООТВЕТСТВИИ

Заявление о соответствии. Настоящим компания Makeblock Co., Ltd. заявляет, что данный продукт соответствует основным требованиям и другим соответствующим положениям Директивы RED 2014/53/EU и директивы RoHS 2011/65/EU.

IT-Istruzioni di sicurezza

Disattivo/Attivo

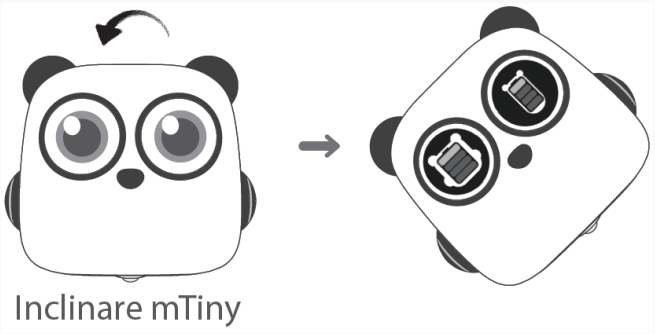
Quando i display si spengono e gli indicatori laterali si illuminano di luce intermittente blu, mTiny è in modalità Disattivato.



Spostare il joystick sul controller della penna capacitiva o scuotere mTiny per attivarlo.

Controllare il livello attuale della batteria

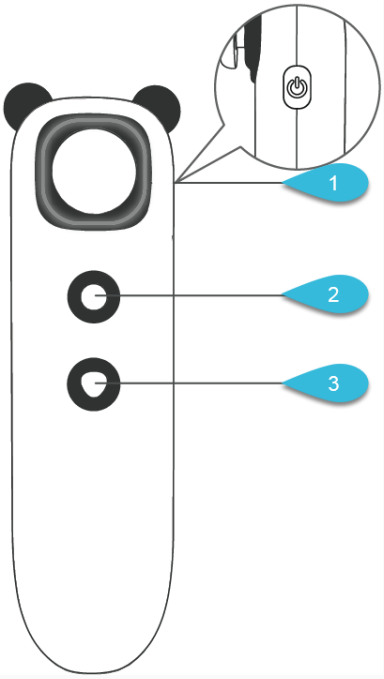
Inclinare mTiny e tenerlo in questa posizione per un po', verrà visualizzato il livello della batteria sia di mTiny sia del controller.



Istruzioni per i pulsanti

1: Pulsante di accensione
Premere a lungo il pulsante per accendere o spegnere il controller penna capacitiva.

2: Pulsante di conferma
Eseguire il programma di input o ripetere l'ultimo programma.



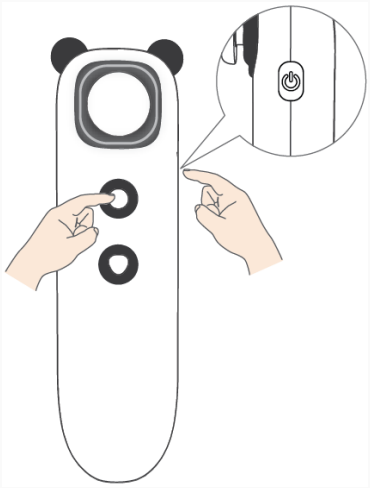
3: Pulsante di arresto

Interrompere l'azione in corso.

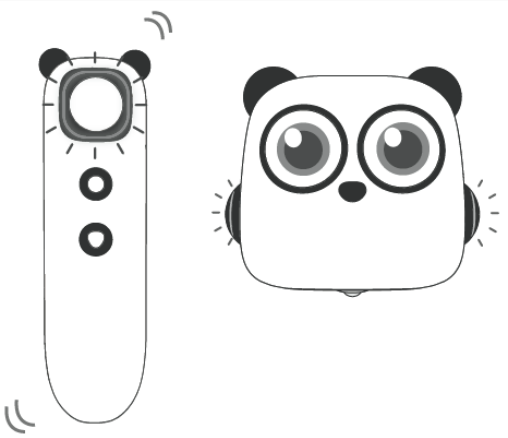
Associazione

Prima di eseguire l'associazione, riavviare il robot e il controller penna capacitiva.Quindi seguire le istruzioni seguenti per completare l'associazione:

1. Premere e tenere premuto il tasto per 2 secondi.



2. Spostare il controller penna capacitiva vicino a mTiny per avviare l'associazione.L'indicatore lampeggerà alternativamente con colore blu e rosso.



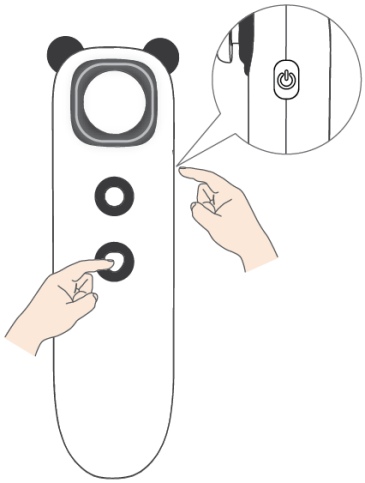
Associazione riuscita Un indicatore luminoso blu è acceso fisso.

Taratura del joystick

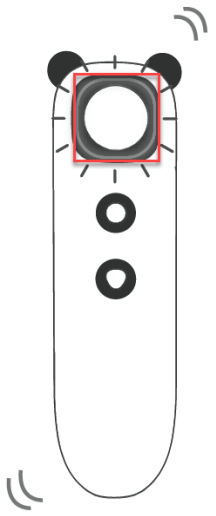
Il joystick potrebbe non rispondere correttamente dopo l'uso per lunghi periodi, seguire le istruzioni qui sotto per effettuare la taratura e mantenere un controllo preciso.

1. Iniziare la taratura.

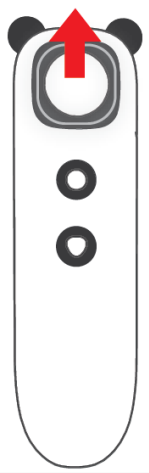
   Press and hold these two buttons for 2 seconds.



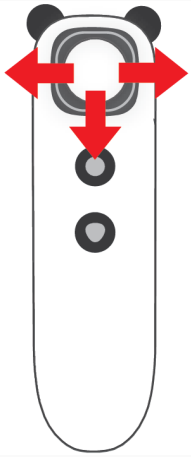
Premere e tenere premuto il tasto per 2 secondi.



2. Spingere il joystick completamente in avanti e quindi rilasciare.

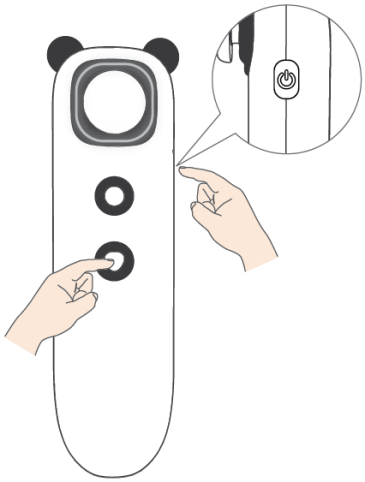


3. Spingere/Tirare il joystick completamente nelle altre tre direzioni e rilasciare per completare la taratura.



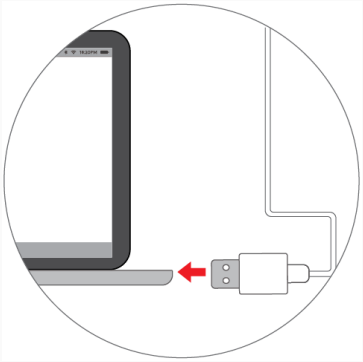
4. Uscire dalla taratura.

   Premere e tenere premuto il tasto per 2 secondi.

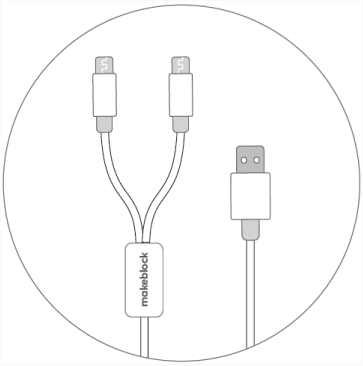


Aggiornamento del firmware

1. Preparazione per l'aggiornamento.



Un computer con porte USB

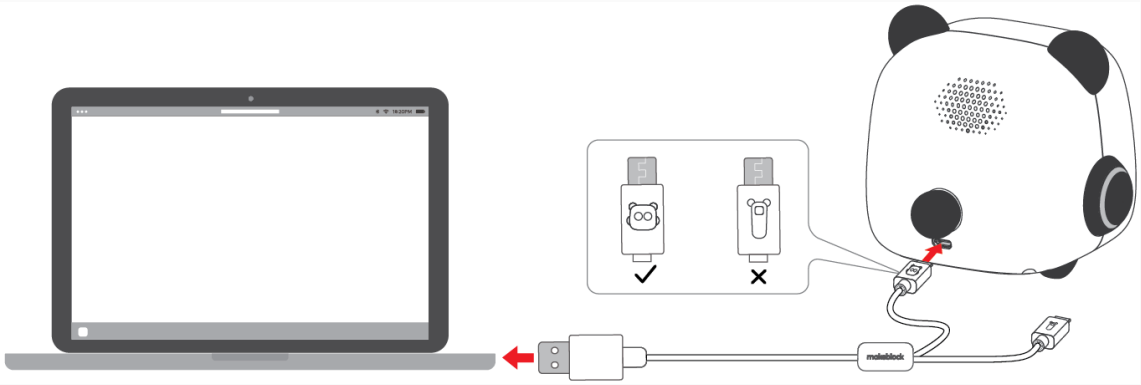


Cavo USB nella confezione del prodotto

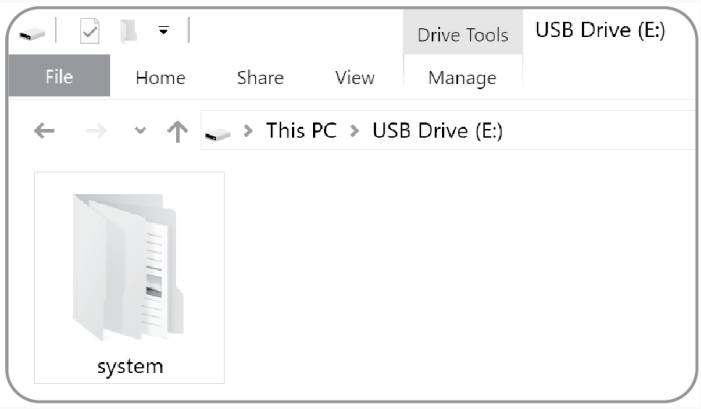
Controller mTiny e penna capacitiva associati (con almeno il 50% della batteria)

2. Andare su https://www.makeblock.com/support/ps-mtiny#firmware e scaricare l'ultimo pacchetto di aggiornamento del firmware.

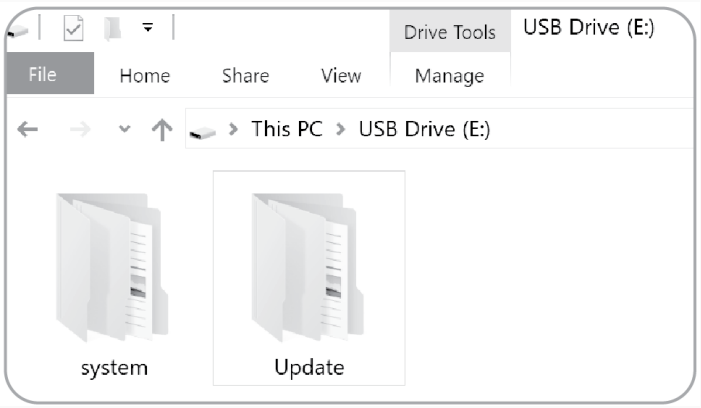
3. Utilizzare il cavo USB con l'icona mTiny per connettere mTiny al computer.



4. Dopo la connessione, il computer riconoscerà mTiny come unità USB Aprila, verrà visualizzata una cartella denominata "sistema".



5. Estrarre il pacchetto di aggiornamento.Trova la cartella denominata "aggiornamento" nella directory estratta.Copiare e incollare l'intera cartella "aggiornamento" nella directory principale del disco di mTiny.



6. Disconnettere mTiny dal computer.

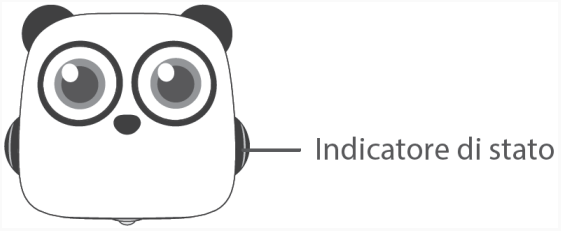
7. Riavviare mTiny e il controller della penna capacitiva e il processo di aggiornamento si avvierà automaticamente.
   Il processo di aggiornamento richiederà da 3 a 5 minuti.Attendere.

Verrà emesso un segnale acustico quando l'aggiornamento ha esito positivo.

> Durante il processo di aggiornamento, mTiny controllerà automaticamente la connessione con il controller della penna capacitiva e il livello attuale della batteria.Il processo potrebbe arrestarsi se tali condizioni non sono soddisfatte.Associare nuovamente o caricare la batteria.

Aggiornamento completato.Prova le nuove funzionalità di mTiny!

Led di Stato



Luce intermittente blu	Modalità attesa
Luce intermittente rossa	Ricarica
Luce verde è accesa fissa	Ricarica completa
Luce rossa lampeggia	Batteria quasi scarica
Luce blu lampeggia	Non associato al controller della penna capacitiva
L'indicatore lampeggia alternativamente in rosso e blu	Associazione con il controller della penna capacitiva
Luce blu fissa	Associazione riuscita

Luce intermittente blu	Modalità attesa

Luce intermittente rossa	Ricarica
Luce verde è accesa fissa	Ricarica completa
Luce rossa lampeggia	Batteria quasi scarica
Luce blu lampeggia	Non associato a mTiny
L'indicatore lampeggia alternativamente in rosso e blu	Associazione con mTiny
Luce blu fissa	Associazione riuscita

Precauzioni

- Il prodotto è consigliato per bambini sopra i 4 anni.
- Non consentire a bambini sotto i 3 anni di usare il prodotto.
- Un adulto deve essere presente quando i bambini usano il prodotto.
- Non posizionare il prodotto sul bordo di un punto elevato per evitare danni dovuti a cadute.
- Non smontare, riparare o modificare personalmente il prodotto per evitare guasti al prodotto.
- Batteria non sostituibile.
- Non mettere il prodotto in acqua o nel fuoco o esporlo ad un ambiente umido o ad alta temperatura per evitare guasti al prodotto o rischi per la sicurezza.
- Non utilizzare o caricare il prodotto ad una temperatura superiore all'intervallo di temperature di funzionamento.
- Caricare completamente il prodotto prima di lasciarlo inattivo e di caricarlo almeno una volta ogni 3 mesi.
- Per ricaricare il prodotto, utilizzare l’adattatore consigliato (adattatore da 5 V/2 A).
- L'adattatore di alimentazione (non incluso nella confezione del prodotto) per il prodotto non è un giocattolo.
- L'uso improprio dell'adattatore di alimentazione potrebbe comportare il rischio di scosse elettriche.
- Spegnere e scollegare il prodotto dall'alimentazione esterna prima di pulire il prodotto con liquido.
- Non collegare il prodotto a più della quantità consigliata di alimentatori.
- Le batterie ricaricabili devono essere caricate esclusivamente con la supervisione di un adulto.
- Controllare regolarmente i cavi, le spine, il rivestimento e altri componenti per eventuali danni.Interrompere immediatamente l'uso del prodotto se si verificano danni e farlo riparare.
- Il giocattolo deve essere collegato esclusivamente ad apparecchiatura di Classe II che riporta il seguente simbolo "⧈".

- I guasti possono verificarsi quando il prodotto viene caricato ad una temperatura inferiore a 0 ˚C o superiore a 40 ˚C.

Specifiche tecniche

Batteria (mTiny)	Batteria al litio 1800 mAh
Tensione in ingresso micro USB (mTiny)	5 V CC
Corrente in ingresso micro USB (mTiny)	1,5 A
Batteria (controller della penna capacitiva)	Batteria al litio 300 mAh
Tensione di ingresso micro USB (controller della penna capacitiva)	5 V CC
Corrente di ingresso micro USB (controller della penna capacitiva)	270 mA
Modalità di trasmissione	2,4 G
Intervallo di frequenza	2.400 MHz–2.480 MHz
Distanza di funzionamento	Entro un raggio di 10 metri (in campo aperto)
Temperatura di esercizio	0 ˚C – 40 ˚C
Temperatura di conservazione	–10 ˚C – 55 ˚C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If

this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

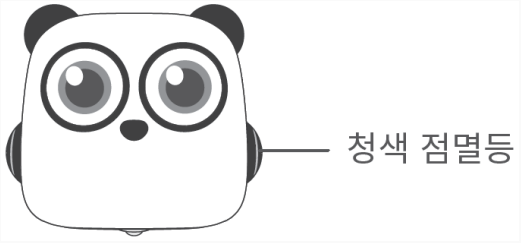
DICHIARAZIONE DI CONFORMITÀ

Dichiarazione di conformità: la Makeblock Co., Ltd., con la presente dichiara che questo prodotto è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti della direttiva RED 2014/53/UE e della direttiva RoHS 2011/65/UE

KR-안전수칙

휴면 / 활성

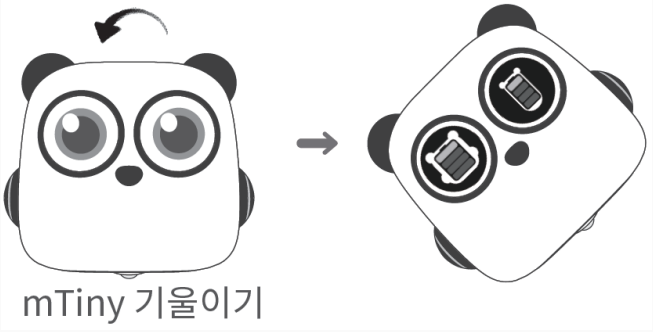
디스플레이가 꺼지고 측면 지시등이 청색으로 점멸하면 mTiny가 휴면 모드에 진입한 것입니다.



탭 펜 컨트롤러의 조이스틱을 움직이거나 흔들어 mTiny를 활성화 시킬 수 있습니다.

현재 배터리 잔량 확인

mTiny를 기울인 채로 일정 시간 있으면, mTiny 및 탭 펜 컨트롤러의 배터리 잔량이 표시됩니다.

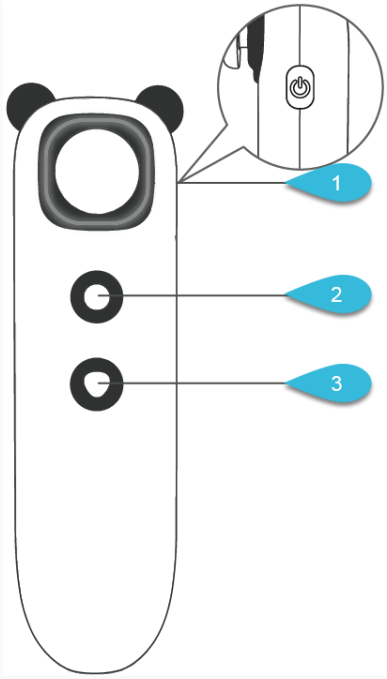


버튼 설명

1: 전원 버튼
이 버튼을 길게 눌러 탭 펜 컨트롤러를 켜거나 끕니다.

2: 확인 버튼
입력 명령을 실행하거나 마지막 명령을 반복합니다.

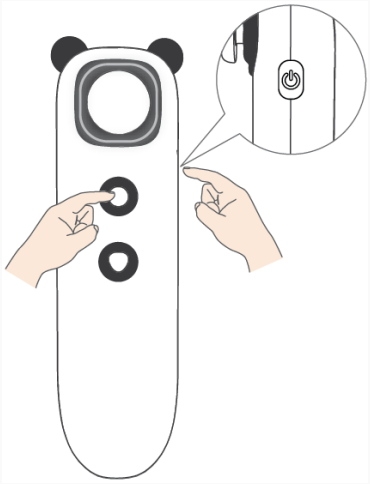
3: 정지 버튼
진행 중인 동작을 중지합니다.



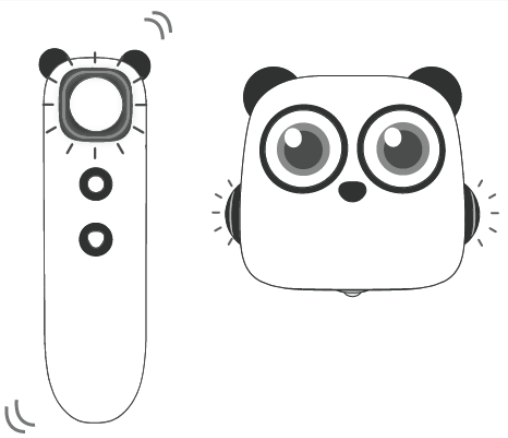
페어링

페어링하기 전에 로봇과 탭 펜 컨트롤러를 재시작하세요. 그런 다음 아래 설명을 따라 페어링을 완료하세요.

1. 버튼을 2초간 길게 누릅니다.



2. 탭 펜 컨트롤러를 mTiny에 가까이 놓으시고 페어링을 시작하세요. 지시등이 청색과 적색으로 교대로 점멸할 것입니다.



페어링 완료

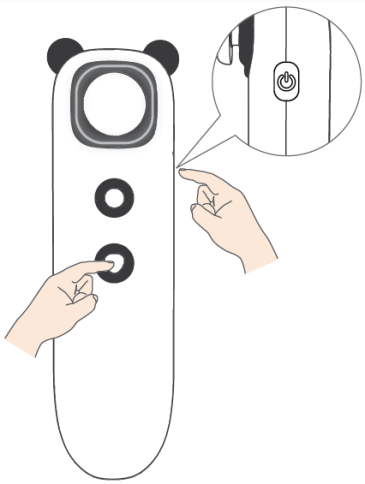
청색 지시등이 점등되어 있습니다.

조이스틱 보정

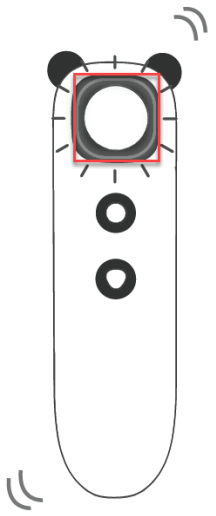
장시간 사용 후에는 조이스틱이 오작동할 수 있습니다. 정확한 제어를 유지하려면 아래의 설명에 따라 재보정하십시오.

1. 보정을 시작합니다.

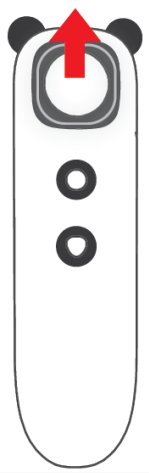
   버튼을 2초간 길게 누릅니다.



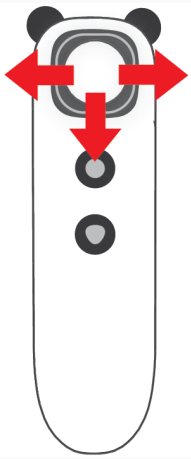
지시등이 청색과 녹색으로 교대로 점멸합니다.



2. 조이스틱을 앞으로 끝까지 민 다음 놓으세요.

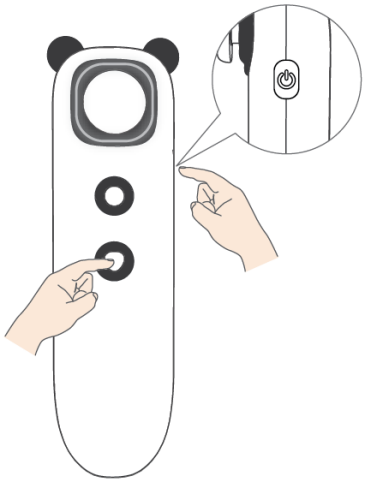


3. 나머지 세 방향으로 조이스틱을 완전히 밀고 당긴 다음 놓아서 보정을 완료하세요.



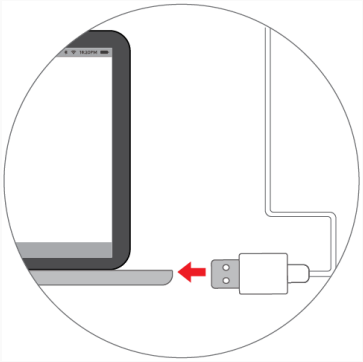
4. 보정을 종료하세요.

   버튼을 2초간 길게 누릅니다.

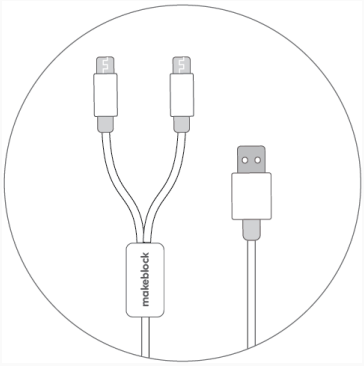


펌웨어 업데이트

1. 업데이트 준비.



USB 포트가 있는 컴퓨터

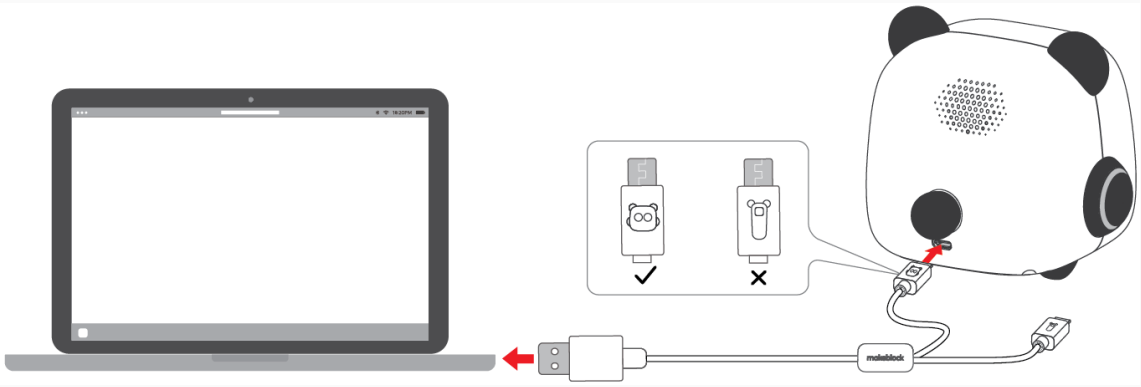


제품 패키지의 USB 케이블

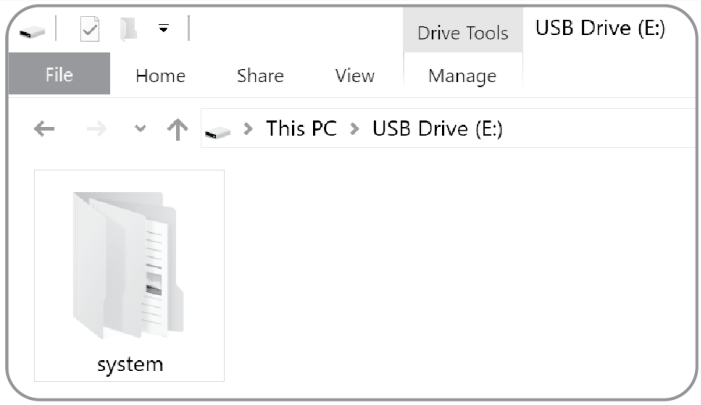
페어링된 mTiny 및 탭 펜 컨트롤러(배터리 잔량 50% 이상)

2. https://www.makeblock.com/support/ps-mtiny#firmware 로 이동하여 최신 펌웨어 업데이트 패키지를 다운로드하세요.

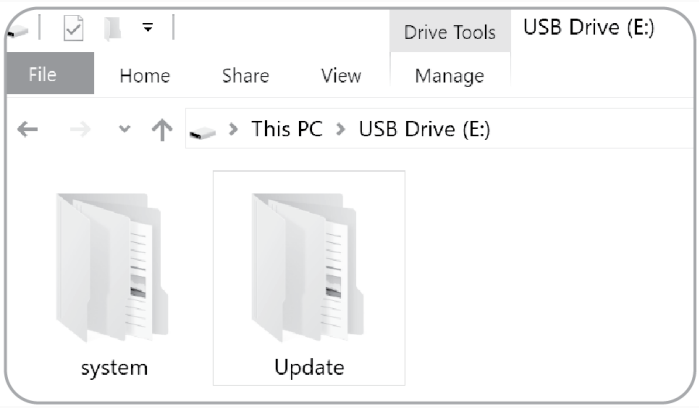
3. mTiny 아이콘이 있는 USB 케이블을 사용하여 mTiny를 컴퓨터에 연결하세요.



4. 연결 후 컴퓨터는 mTiny를 USB 드라이브로 인식합니다. 이 드라이브를 열면, “system” 이라는 폴더가 표시됩니다.



5. 업데이트 패키지의 압축을 해제하세요. 압축 해제된 디렉토리에서 “update”라는 폴더를 찾으세요. “update” 폴더 전체를 복사하여 mTiny 디스크의 루트 디렉토리에 붙여 넣으세요.



6. 컴퓨터에서 mTiny를 분리합니다.

7. mTiny와 탭 펜 컨트롤러를 재시작하면 업데이트 프로세스가 자동으로 시작됩니다.
   업데이트 프로세스는 3-5분 정도 소요됩니다. 잠시 기다리십시오.
   업데이트가 성공적으로 완료되면 알림 소리가 납니다.

> 업데이트 프로세스 중에 mTiny는 탭 펜 컨트롤러와의 연결 상태와 현재 배터리 잔량을 자동으로 확인합니다. 이러한 조건이 충족되지 않으면 프로세스가 중단될 수 있습니다. 다시 페어링하거나 배터리를 충전하십시오.

업데이트가 완료되었습니다. mTiny의 새로운 기능을 사용해 보세요!

지시등 상태

청색 점멸등	휴면 모드
적색 점멸등	충전 중
녹색등 점등	충전 완료
적색등 점멸	배터리 부족
청색등 점멸	탭 펜 컨트롤러와 페어링되지 않음
지시등이 청색과 적색으로 교대로 점멸	탭 펜 컨트롤러와 페어링 중
청색등 점등	탭 펜 컨트롤러와 페어링 완료

청색 점멸등	휴면 모드
적색 점멸등	충전 중
녹색등 점등	충전 완료
적색등 점멸	배터리 부족
청색등 점멸	mTiny와 페어링되지 않음
지시등이 청색과 적색으로 교대로 점멸	mTiny와 페어링 중
청색등 점등	탭 펜 컨트롤러와 페어링 완료

주의사항

- 본 제품은 4세 이상의 아동에게 권장됩니다.

- 3세 이하의 아동에게는 본 제품을 사용하게 하시지 마십시오.
- 아동이 본 제품을 사용할 때는 보호자가 지켜보아야 합니다.
- 제품이 떨어져 손상되지 않도록 제품을 높은 곳의 가장자리에 두지 마십시오.
- 제품 고장을 방지하기 위해 제품을 직접 분해, 수리하거나 개조하지 마십시오.
- 배터리는 교체할 수 없습니다.
- 제품 고장 또는 안전 위험을 방지하기 위해 제품을 물이나 불 속에 넣거나 습한 환경이나 고온 환경에 노출시키지 마십시오.
- 작동 온도 범위를 초과하는 온도에서 제품을 사용하거나 충전하지 마십시오.
- 제품을 유휴 상태로 두기 전에 완충시키고, 3개월에 한 차례 이상 충전하십시오.
- 권장 어댑터(5V/2A 어댑터)를 사용하여 제품을 충전하십시오.
- 제품의 전원 어댑터(별매품)는 완구가 아닙니다.
- 전원 어댑터를 잘못 사용하면 감전 위험이 초래될 수 있습니다.
- 제품을 액체로 닦기 전에 제품을 종료하고 외부 전원공급장치에서 분리하십시오.
- 제품을 전원공급장치의 권장 규격 이상으로 연결하지 마십시오.
- 이 제품은 보호자의 통제하에서만 충전할 수 있습니다.
- 케이블, 플러그, 케이스 및 기타 구성품의 손상 여부를 정기적으로 점검하십시오. 손상이 발생하면 즉시 제품 사용을 중지하고 수리를 받으십시오.
- 이 완구는 다음의 “⧈” 기호가 있는 Class II 기기에만 연결할 수 있습니다.
- 이 제품을 0°C 이하 또는 40°C 이상의 온도에서 충전하면 결함이 발생할 수 있습니다.

사양

배터리(mTiny)	1,800mAh 리튬 배터리
마이크로 USB 입력 전압(mTiny)	DC 5V
마이크로 USB 입력 전류(mTiny)	1.5 A
배터리(탭 펜 컨트롤러)	300 mAh lithium battery
마이크로 USB 입력 전압(탭 펜 컨트롤러)	DC 5V
마이크로 USB 입력 전류(탭 펜 컨트롤러)	270 mA
전송 방식	2.4G
주파수 범위	2,400MHz–2,480MHz
작동 거리	반경 10m 이내(트인 공간 기준)
작동 온도	0°C–40°C
보관 온도	–10°C–+55°C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

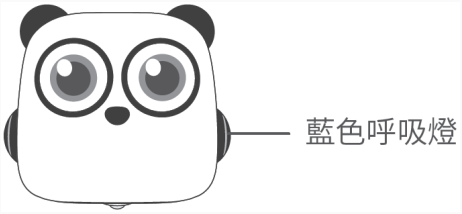
적합성 선언서

이 적합성 선언서를 통해 Makeblock Co., Ltd. 는 본 제품이 RED 지침 2014/53/EU 및 RoHS 지침 2011/65/EU 의 필수 요구 사항 및 기타 관련 조항을 준수함을 선언합니다

TC-安全使用說明書

休眠與喚醒

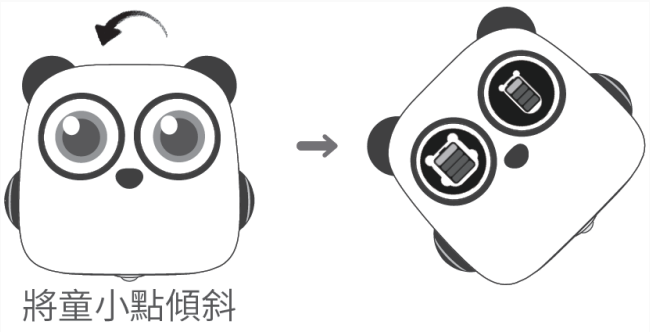
當螢幕熄滅且側面指示燈變成藍色呼吸燈狀態時，表示童小點正在休息。



動動點控筆上的搖桿或者晃動童小點，即可喚醒他。

查看電量

將童小點傾斜並保持一段時間，童小點就會顯示機器人和點控筆的剩餘電量。

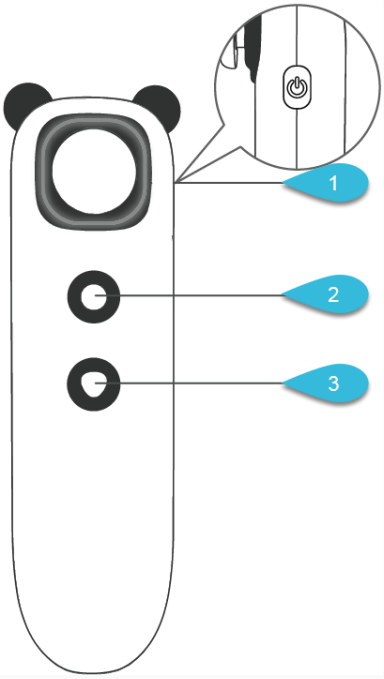


按鍵說明

1: 電源開關鍵
長按開啟或關閉點控筆。

2: 確認按鍵
開始執行所輸入的指令，或者重複執行上一次的指令。

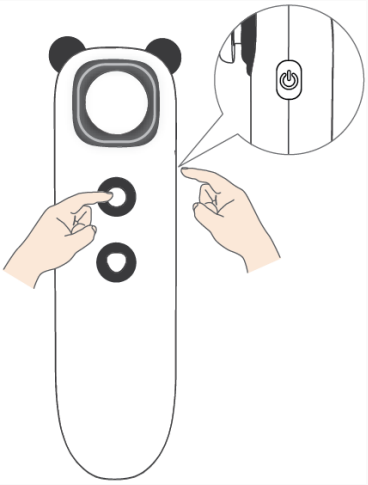
3: 停止按鍵
停止童小點正在進行的動作。



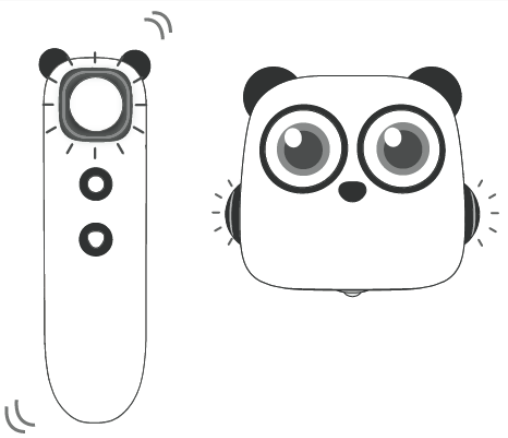
配對

開始配對前，請重新啟動童小點機器人和點控筆，並按照下列方法完成配對：

1. 長按 2 秒。



2. 將點控筆靠近童小點機器人開始配對，指示燈紅藍交替閃爍。



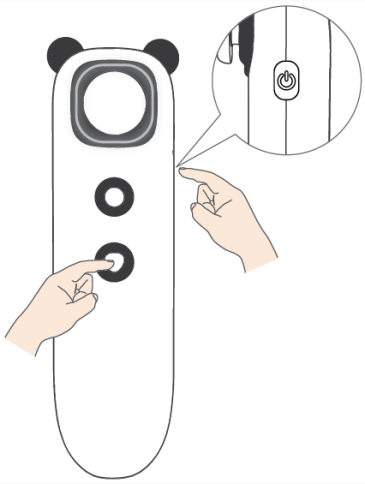
配對成功，指示燈藍色恆亮。

搖桿校準

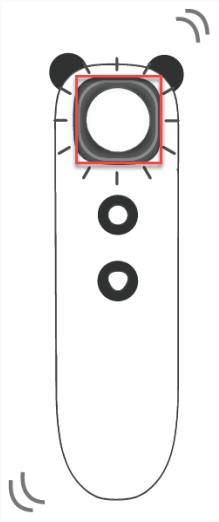
長期使用搖桿可能會出現控制誤差，需按照下列步驟重新校準搖桿。

1. 進入校準狀態。

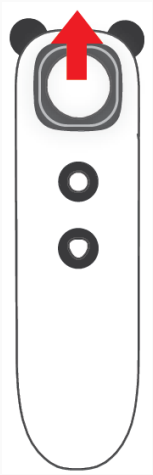
   長按 2 秒



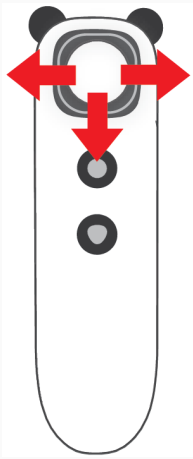
藍綠燈交替閃爍



2. 將搖桿往前進方向推到底，然後鬆開。

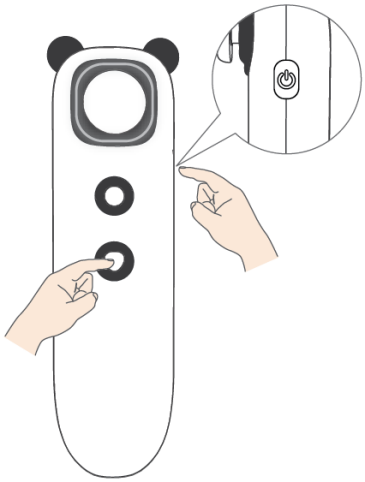


3. 依次將搖桿往其他三個方向推/拉到底後鬆開，即可完成校準。



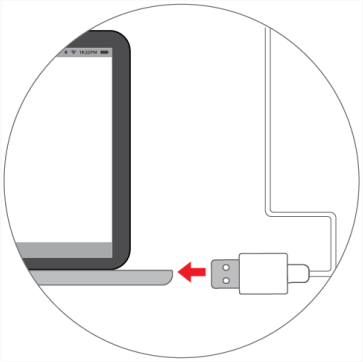
4. 退出校準。

   長按 2 秒

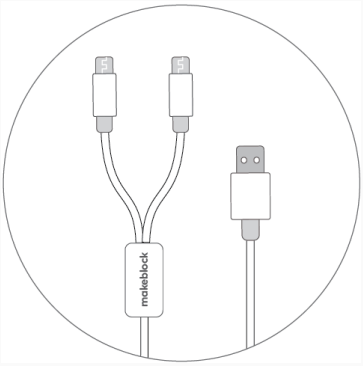


軟體升級

1. 升級準備。



具備 USB 連接埠的電腦一台

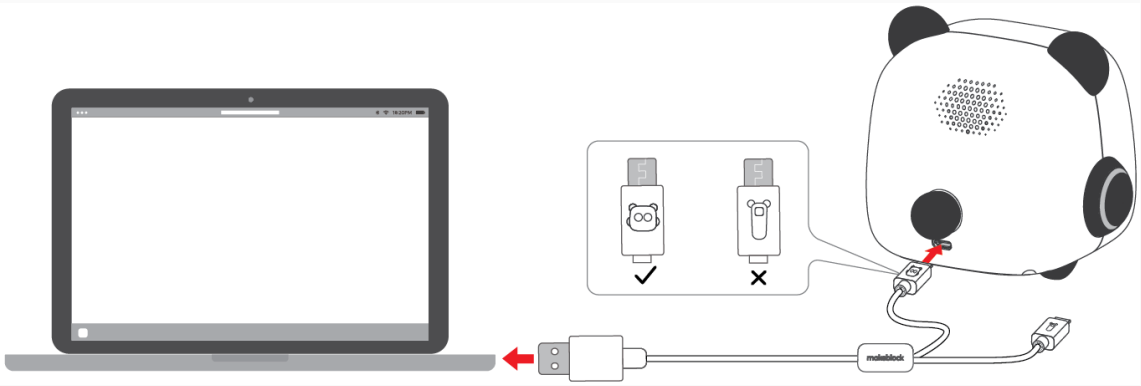


包裝內的 USB 傳輸線

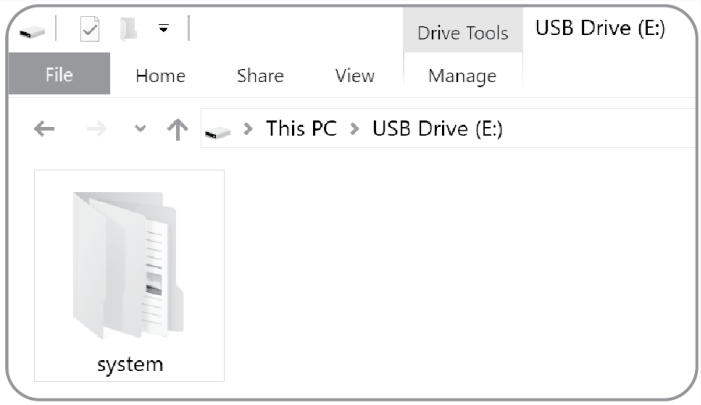
已配對的童小點機器人和點控筆（電量 50% 以上）

2. 前往頁面：https://www.makeblock.com/support/ps-mtiny#firmware 下載最新的升級軟體壓縮檔。

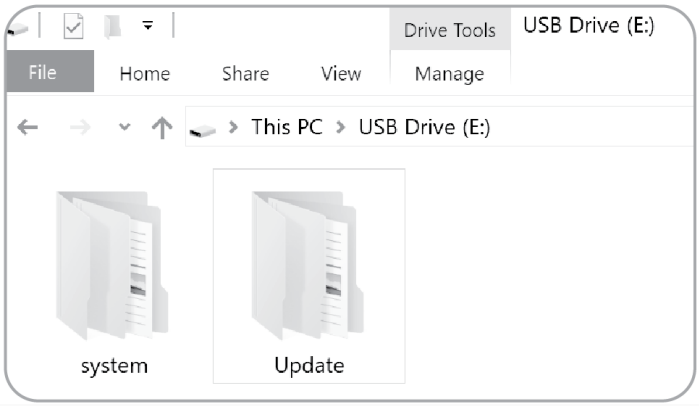
3. 使用帶童小點機器人圖示的 USB 傳輸線，連接童小點機器人到電腦。



4. 成功連接後，電腦將識別童小點的磁碟，識別成功後，打開磁碟將看到一個名為「system」的資料夾。



5. 將升級軟體壓縮檔解壓縮。在解壓縮後的資料夾中找到「update」資料夾。將「update」資料夾整個複製到童小點磁碟的根目錄下。



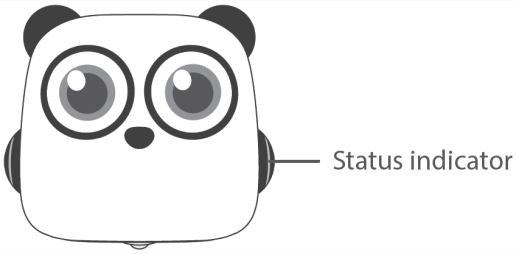
6. 拔下童小點機器人上的 USB 傳輸線。

7. 重新啟動童小點機器人和點控筆，成功啟動後童小點將自動升級。
   升級過程需要 3 到 5 分鐘，請耐心等待。
   升級成功後，語音將提示升級成功。

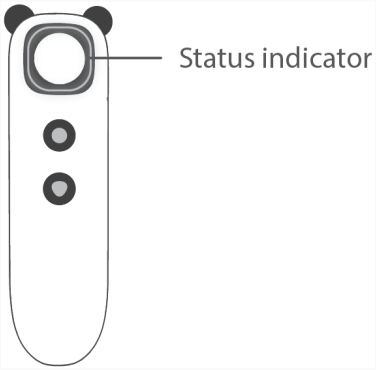
> 開始升級後，將自動檢查(1)童小點機器人與點控筆是否連接(2)電量是否充足，若條件不符合將停止升級。請重新進行連接或充電。

升級完成，快去試試童小點的新技能吧！

指示燈狀態



藍色呼吸燈	休眠狀態
紅色呼吸燈	正在充電
綠燈恆亮	充電完成
紅燈閃爍	電量低
藍燈閃爍	未連接點控筆
紅藍燈交替閃爍	正在與點控筆配對
藍燈恆亮	與點控筆配對成功



藍色呼吸燈	休眠狀態
紅色呼吸燈	正在充電
綠燈恆亮	充電完成
紅燈閃爍	電量低
藍燈閃爍	未連接童小點機器人
紅藍燈交替閃爍	正在與童小點機器人配對
藍燈恆亮	與點控筆配對成功

注意事項

- 建議使用者年齡為 4 歲以上。
- 本產品不得提供 3 歲以下兒童使用。

- 兒童請在成年人陪同下使用本產品。
- 請避免將本產品放置在高處邊緣，避免跌落損壞。
- 請勿自行拆卸、修繕或改裝本產品，避免造成產品故障。
- 電池不可更換。
- 請勿將本產品放置於水、火、潮濕或高溫環境中，避免造成產品故障或引起安全事故。
- 請勿在高溫環境下使用本產品或為本產品充電。
- 本產品閒置時，請充滿電再放置儲存，每 3 個月需至少充電一次。
- 請使用推薦規格的變壓器（5V / 2A 適配器）為本產品充電。
- 本產品充電變壓器（不包含在包裝內）不能當做玩具使用。
- 誤用變壓器可能會造成電擊危害。
- 用液體對本產品進行清潔時，請將產品關機，並與外部供電設備斷開連接。
- 產品不能連接到多於推薦數量的電源上。
- 產品只能在成人監護下充電。
- 定期檢查電線、插頭、外殼或其他零部件是否損壞，發現損壞時請立即停用，直至修復完好。
- 本產品僅能連接帶有 Class II 符號的設備。
- 在低於 0°C 或高於 40°C 的環境下為本產品充電，可能會導致異常。

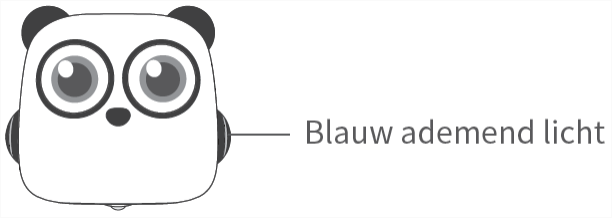
規格參數

電池（童小點機器人）	1800mAh 鋰電池
Micro USB 輸入電壓（童小點機器人）	DC 5V
Micro USB 輸入電流（童小點機器人）	1.5 A
電池（點控筆）	300mAh 鋰電池
Micro USB 輸入電壓（點控筆）	DC 5V
Micro USB 輸入電流（點控筆）	270 mA
傳輸方式	2.4G
頻率範圍	2400 MHz—2480 MHz
有效使用距離	10 公尺範圍內（空曠環境下）
使用溫度	0°C—40°C
保存溫度	—10°C—+55°C

NL-Veiligheidsinstructies

Slapen/Wakker worden

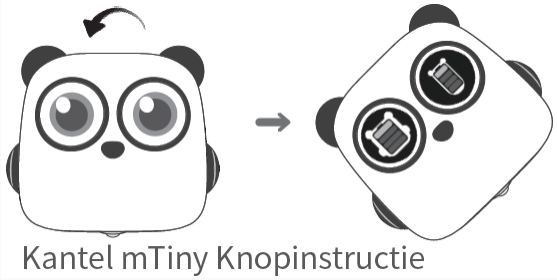
Wanneer de displays worden uitgeschakeld en de zijknipperlichten blauw worden, staat mTiny in de slaapstand.



Beweeg de joystick op de pencontroller of schud mTiny om hem wakker te maken.

Controleer het huidige batterijniveau

Houd de mTiny een aantal seconden gekanteld, dan wordt het batterijniveau van zowel mTiny als de pencontroller weergegeven.

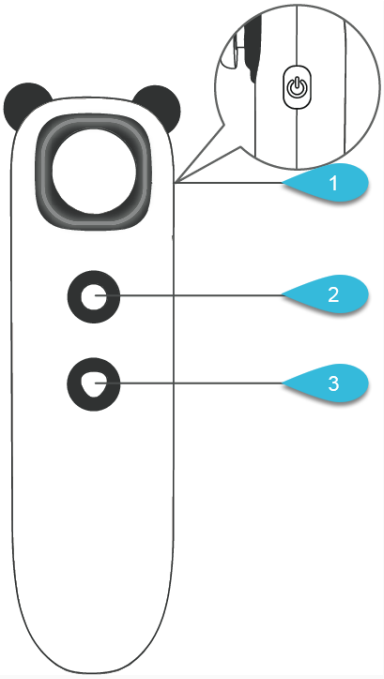


Sleutelbeschrijving

1: Aan/uit-knop
Druk lang op de knop om de kraanpencontroller in of uit te schakelen.

2: Bevestigingsknop
Voer het ingevoerde programma uit of herhaal het laatste programma.

3: Stopknop

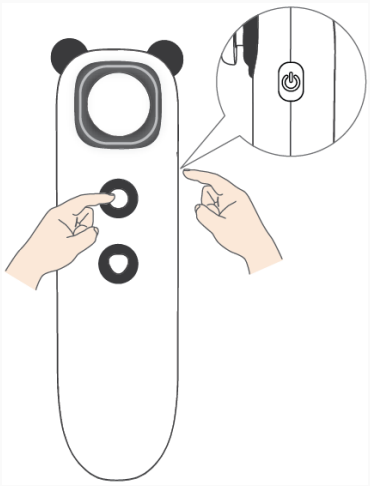


Stop de lopende actie.

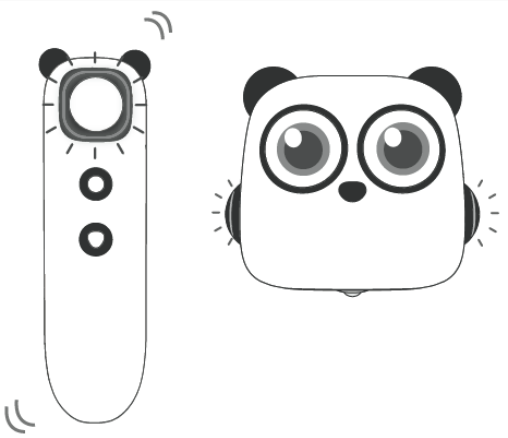
Koppelen

Start de robot en de penbesturing opnieuw op voordat u gaat koppelen. Volg dan de onderstaande instructies om de koppeling te voltooien:

1. Houd deze twee knoppen 2 seconden lang ingedrukt.



2. Houd/Plaats de pencontroller dicht bij mTiny om te beginnen met het koppelen. De indicator zal afwisselend blauw en rood knipperen.



Koppelen geslaagd

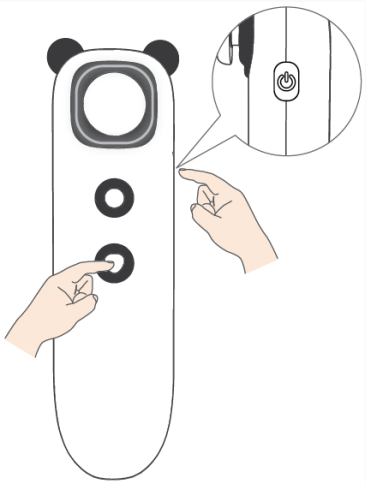
Een blauw lampje brandt constant.

Joystick kalibratie

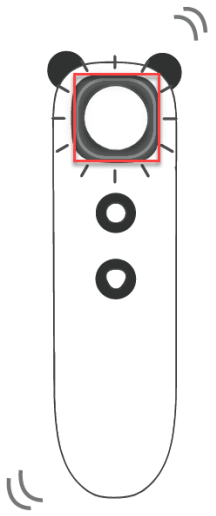
De joystick kan zich na langdurig gebruik misdragen, volg de onderstaande instructies om hem te kalibreren om een nauwkeurige controle te behouden.

1. Begin met de kalibratie.

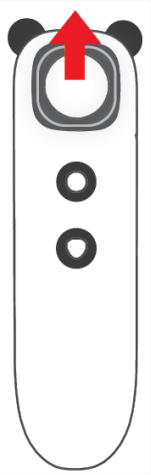
   Houd deze twee knoppen 2 seconden lang ingedrukt.



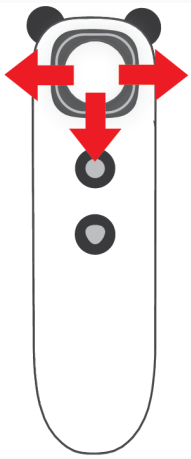
De indicator knippert afwisselend blauw en groen.



2. Duw de joystick volledig naar voren en laat hem dan los.

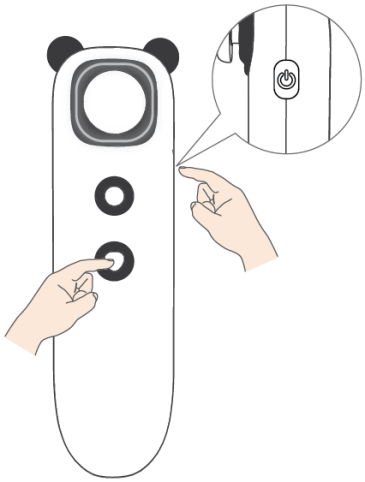


3. Duw/trek de joystick volledig in de andere drie richtingen en laat hem dan los om de kalibratie te voltooien.



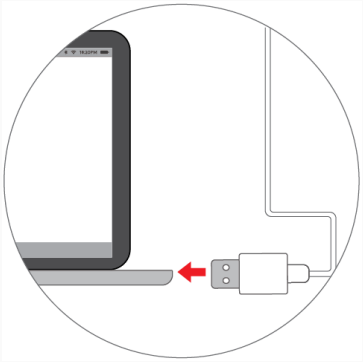
4. Verlaat de kalibratie.

   Houd deze twee knoppen 2 seconden lang ingedrukt.

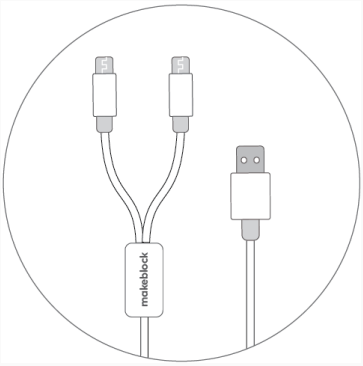


Firmware-update

1. Voorbereiding voor update.



Een computer met USB-poorten

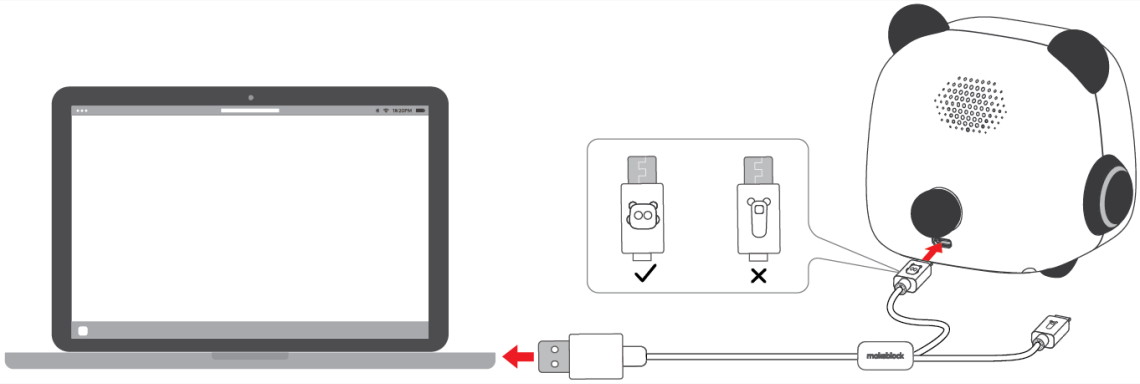


USB-kabel in de productverpakking

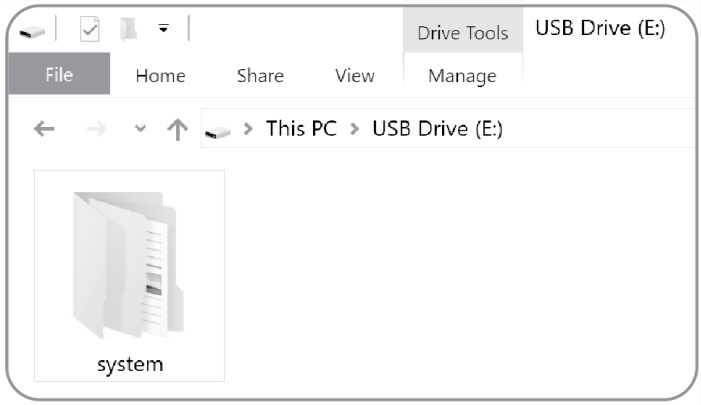
Gekoppelde mTiny en pencontroller (met ten minste 50% batterijniveau)

2. Ga naar https://www.makeblock.com/support/ps-mtiny#firmware om de laatste firmware-update te downloaden.

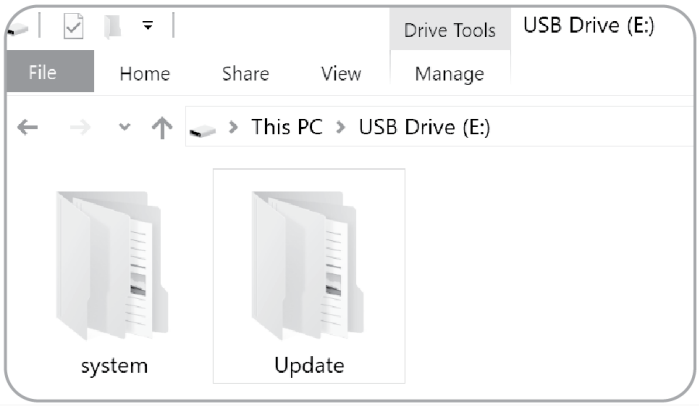
3. Gebruik de USB-kabel met het mTiny-pictogram om mTiny aan te sluiten op de computer.



4. Na het aansluiten herkent de computer mTiny als een USB-drive. Open het, een map met de naam "system" zal worden weergegeven.



5. Pak het updatepakket uit. Zoek de map met de naam "update" in de uitgepakte map. Kopieer en plak de hele "update" map in de hoofdmap van de schijf van mTiny.



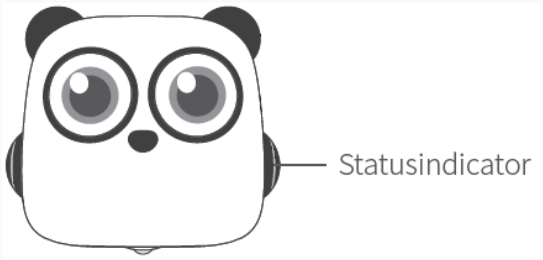
6. Koppel mTiny los van de computer.

7. Herstart mTiny en de pencontroller, en het updateproces zal automatisch starten.
   Het updateproces duurt 3 tot 5 minuten. Even geduld a.u.b.
   Er klinkt een geluidssignaal als de update succesvol is.

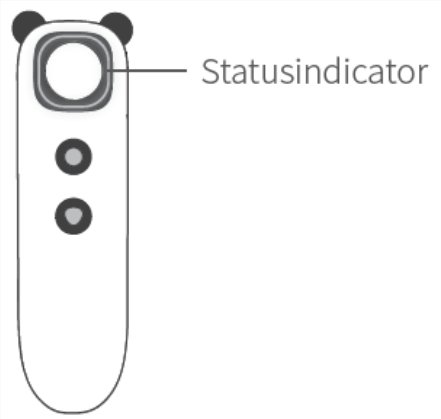
Tijdens het updateproces controleert mTiny automatisch de verbinding met de pencontroller en het huidige batterijniveau. Het proces kan stoppen als niet aan deze voorwaarden wordt voldaan. Gelieve opnieuw te koppelen of de batterij op te laden.

Update voltooid. Probeer de nieuwe functies van mTiny!

Indicatorstatus



Blauw ademend licht	Slaapstand
Rood ademend licht	Opladen
Groen licht constant aan	Opladen compleet
Rood licht knippert	Batterij bijna leeg
Blauw licht knippert	Niet gekoppeld aan pencontrolerv
De indicator knippert afwisselend rood en blauw	Koppeling met pennenbakje
Blauw licht constant aan	Koppeling geslaagd



Blauw ademend licht	Slaapstand
Rood ademend licht	Opladen
Groen licht constant aan	Opladen compleet
Rood licht knippert	Batterij bijna leeg
Blauw licht knippert	Niet gekoppeld aan mTiny
De indicator knippert afwisselend rood en blauw	Koppelen met mTiny
Blauw licht constant aan	Koppeling geslaagd

Voorzichtig

- Het product wordt aanbevolen voor kinderen ouder dan 4 jaar.
- Laat kinderen jonger dan 3 jaar het product niet gebruiken.
- Een volwassene moet aanwezig zijn wanneer kinderen het product gebruiken.
- Zet het product niet op de rand van een hoge plaats om schade door vallen te voorkomen.
- Demonteer, repareer of wijzig het product niet zelf om te voorkomen dat het product defect raakt.
- Batterij is niet vervangbaar
- Zet het product niet in water of vuur, en stel het niet bloot aan een vochtige omgeving of omgeving met een hoge temperatuur om product defecten of veiligheidsrisico's te voorkomen.
- Gebruik of laad het product niet bij een temperatuur die afwijkt van het bedrijfstemperatuurbereik.
- Laadt u het product volledig op voordat u het inactief laat, en laadt u het ten minste eenmaal per 3 maanden op.
- Gebruik de aanbevolen adapter (5V/2A) om het product op te laden.
- De voedingsadapter (niet meegeleverd in de productverpakking) voor het product is geen speelgoed.
- Misbruik van de voedingsadapter kan leiden tot gevaar voor elektrische schokken.
- Zet het product uit en ontkoppel het van de externe stroomvoorziening voordat u het product met vloeistof reinigt.
- Sluit het product niet aan op meer dan de aanbevolen hoeveelheid voedingen.
- Dit product kan alleen worden opgeladen onder toezicht van een volwassene.
- Controleer de kabels, stekkers, behuizing en andere componenten regelmatig op eventuele schade. Stop het gebruik van het product onmiddellijk als er schade optreedt en laat het repareren.
- Het speelgoed mag alleen worden aangesloten op apparatuur van klasse II met het volgende symbool.

- Storingen kunnen zich voordoen wanneer het product wordt opgeladen bij een temperatuur van minder dan 0˚C of meer dan 40˚C.

Specificaties

Batterij (mTiny)	1.800mAh lithium batterij
Micro USB-ingangsspanning (mTiny)	DC 5V
Micro USB-ingangsstroom (mTiny)	1.5 A
Batterij (pencontroler)	300mAh lithium batterij
Micro USB-ingangsspanning (pencontroler)	DC 5V
Micro USB-ingangsstroom (pencontroler)	270 mA
Transmissiemodus	2.4G
Frequentiebereik	2400 MHz—2480 MHz
Werkafstand	Binnen een straal van 10 meter (in een open veld)
Bedrijfstemperatuur	0˚C—40˚C
Opslagtemperatuur	—10˚C—+55˚C

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void
the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be

determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

VERKLARING VAN OVEREENSTEMMING

Hierbij verklaart Makeblock Co., Ltd., dat dit product in overeenstemming is met de essentiële eisen en andere relevante bepalingen van Richtlijn RED 2014/53/EU en de RoHS–richtlijn 2011/65/EU