




Matatalab MTB2106 Command Tower User Guide

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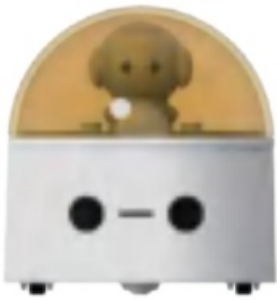
User Guide



1 Parts List

MatataBot Basic x1

Control Board x1



Command Tower BASIC x1



Move Forward x4



Move Backward x4



Left Turn 90 x4



Right Turn 90 x4



Loop Begins x2



Loop Ends x2



Preset Movement x1



Preset Music x1



Preset Dancing x1



Alto Clef Music Block x7



Treble Clef Music Block x1



Numbers x2



Angles x1



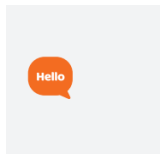
Flags x8



Obstacles x8



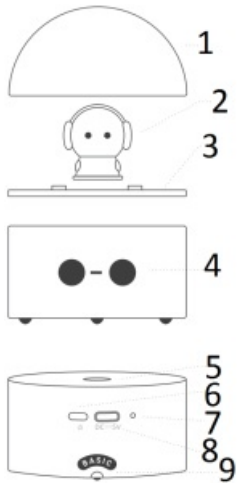
USB-C Cable x1



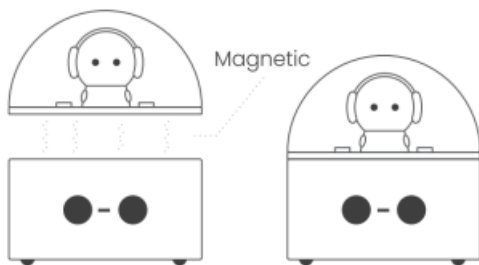
Accessory Pack x1

2 About Home Edition

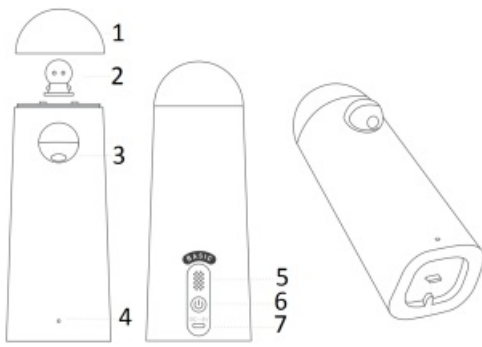
MatataBot



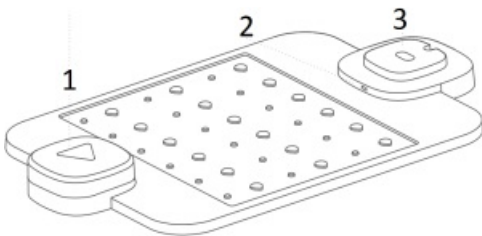
1. Dome for Matatalab Figure
2. Matatalab Figure
3. Matatalab Figure Base (Lego® bricks adapter)
4. LED Lights (RGB LED)
5. Pen Holder
6. Power Button
7. LED Light
8. USB-C Charger Port
9. Straight Moving Helper



Command Tower and Control Board



1. Dome for Matatalab Figure
2. Matatalab Figure
3. Image Recognition Camera Magnetic
4. Indicator Light (ROB)
5. Speaker
6. Power Button
7. USB-C Charger



1. Start Button
2. Indicator Light (RGB)
3. Pogo Pin Connector

Coding Blocks

Motion Blocks



Move Forward Move Backward Left Turn 90° Right Turn 90°

For each step of “Forward” / “Backward”, the robot will move 10cm towards that direction;

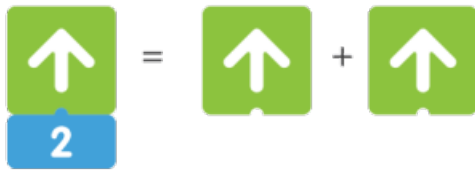
“Turn Left” refers to a 90 ° turn to the left on the spot while “Turn Right” refers to a 90 ° turn to the right.

Number Blocks



Place a Number block under the Forward / Backward / Loop blocks, and the robot will execute the function corresponding to the number of times.

For example, if a Number block “2” is placed under a “Forward”, the robot will advance 2 steps:



Tips:  “Random Number” Coding Blocks represent random numbers from 1 to 6.

Music Blocks



Alto Clef Music Blocks Treble Clef Music Blocks

Change the scale by turning the white rotating cover to different gears, a total of 7 gears, corresponding to do re mi fa so la xi

By placing the digital programming block below the music programming block, the duration of the scale can be changed.

Fun Blocks



Preset Music Preset Dancing Preset Movement

Here are Fun Blocks for 6 pieces of music, 6 sets of dances, and 6 sets of actions that the robot will perform. Combining a Number Block beneath the Fun Blocks, the robot will play or perform the corresponding sequences of music, dance, and movement; if there is no number, the first music/dance/action will be executed by default.



For example, if a “3” is placed below the Preset Dancing, the robot will perform the No.3 preset dance.

Angle Blocks

45°

60°

120°

135°

144°

The command function of Angle Blocks is to specify the angle of “Turn Left” or “Turn Right” in place. When an angle is placed below the “Turn Left” or “Turn Right” coding blocks, the movement of “turning left x°” / “turning right x°” can be achieved.



60°

For example, when a '60 °' is placed under the “Turn Right° coding block, the robot will turn 60 ° right.

Loop Blocks



Loop Begins

Loop Ends

“Loop Starts” and “Loop Ends” must be used together. “Loop Starts” shall be placed in front of an instruction that needs to be executed repeatedly, and “Loop Ends” shall be placed afterward. A “Number” block placed under “Loop Starts” indicates the number of times the instruction is repeatedly executed; when no “Number” block is placed, the instruction will be executed only once.

For example: When a “2” coding block is placed under the “Loop Starts” coding block, the robot will execute the instructions between “Loop Starts” and “Loop Ends” twice.



3 How to Turn On and Off

Command Tower

ON: Press and hold the power button for is until the status indicator (blue) lights up, and the startup music is played;

OFF: Press and hold the power button for is until the status indicator (blue) lights up, and the shutdown music is played.

MatataBot

ON: Press and hold the power button for is until the status indicator (blue) lights up, and the startup music is played;

OFF: Press and hold the power button for is until the status indicator (blue) lights up, and the shutdown music is played.

4 How to Pair

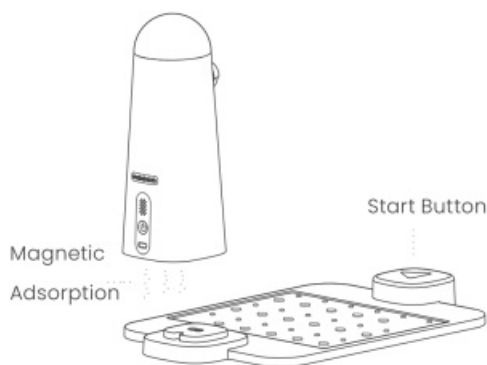
When the Command Tower and MatataBot are turned on, the indicators on both will flash, meaning a connection is starting. When the pairing is successful, you will hear the “Ding Ding” sound effect from them while the indicator lights of both turn constantly on.



Tips:

If the indicators of the Command Tower and the robot keep flashing slowly after powering on, it means that they have failed to pair successfully. In this case, please press the Command Tower's power button three times in quick succession to put it into the re-pairing mode. The re-pairing process will last about 15s. Please wait until the Command Tower and robot are successfully connected.

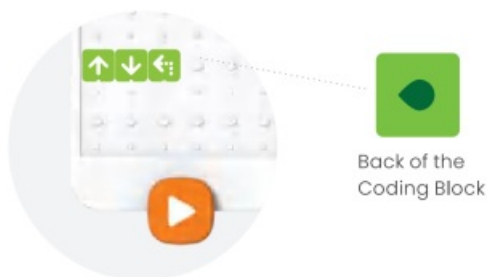
5 Coding Operation Instructions



Tips:

After the Command Tower and robot are turned on and connected, you just need to place the coding blocks and press the start button to control the robot!

Connect the Command Tower to the Control Board on a horizontal surface as shown in the figure, and place the coding blocks on the Control Board for programming (after the Command Tower and the robot are turned on and connected). When you finish coding, please press the start button on the Control Board, and the program will be transferred from the Command Tower to MatataBot to perform the instructions.



Tips:

The bump structure on the Control Board matches the pit structure on the coding blocks! In this case, children will not place the coding blocks in reverse!

Program Running Status:

When the program is running, the indicator light on the Control Board will continuously flash in yellow until the end of the program. If you press the start button on the Control Board during the program operation, the current program will stop. If the program is not running or has ended, the indicator light on the Control Board will be steady yellow. At this time, the user can arrange the next program; when a program syntax error occurs, the Control Board's indicator light will flash quickly, and the Command Tower will issue a "Ding Dings" alarm sound to remind the user to adjust the coding instructions before running it again.

Tips:

It is recommended to use Matatalab robots in a reading-friendly environment for kids to ensure eye safety and better user experience. In case the environment is too dark or abnormal, the Command Tower will sound an alarm and the programmed instructions may not be executed normally.

Coding Rules:

When coding blocks are placed in the Control Board's identification area, the Control Board will recognize and run the coding blocks in accordance with the rules of "left to right" and "top to bottom". You can continue to place coding blocks on a new line when a line is full. This rule also applies if there is a gap between any coding blocks.

Example::



The coding instructions that the Control Board can recognize and run in this program are: MatataBot advances 2 steps; turns right 90 ° in situ; plays the first preset music; and repeats the previous instructions 4 times.

6 Charging Instructions

Please charge the Command Tower and MatataBot with a 5V2A power adapter. When the Command Tower or MatataBot's indicator lights up in blue and flashes quickly, it means that the device has insufficient power and needs to be charged.

When charging, the indicator lights up in red and turns to green when the battery is fully charged.

7 Software Update Instructions

Matatalab will from time to time launch updated Command Tower and robot software for Matatalab Coding Set (Home Edition) owners. Please visit the following link: <http://help.matatalab.com/en/firmware> to get the software update guide.

8 Technical Specification

MatataBot battery	500mAh Li-ion polymer battery
Command Tower battery	2000mAh Li-ion battery
MatataBot / Command Tower USB Type-C input	DC5V / 2A MAX
Pairing	Bluetooth
Range	5~6m
Operating temperature	0°C~40°C
Storage temperature	-10°C~55°C

9 Precautions

- * This product is not suitable for children under 3 years of age;
- * The adapter (not included in the package) used to charge this product cannot be used as a toy;
- * The product can only be connected to one power adapter;
- * When cleaning the product with liquid, please turn off the product and disconnect it from external power supply;
- * Children are required to be accompanied by an adult when using this product;
- * Please do not place this product on high places and edges to avoid dropping damage;
- * Do not disassemble, repair or modify the product yourself to avoid product failure;
- * Do not use or charge the product in an environment outside the working temperature range of the product;
- * When the product is idle, please fully charge and store it. It needs to be charged at least once every 3 months;

Please use the recommended adapter (5V / 2A adapter) to charge this product;

* Please regularly check the wires, plugs, casings or other parts for damage. Stop using it when damage is discovered until fully repaired.

10 Warranty Terms

- * This product has a one year warranty period.
- * The following conditions are not covered by the free warranty:
 - a. Failure to present the warranty certificate and valid invoice;
 - b. The warranty certificate shows signs of alteration or is inconsistent with the product;
 - c. Natural consumption / wear and aging of consumable materials;
 - d. Damage caused by lightning or other electrical issues;
 - e. Damage caused by improper use by users, such as liquid penetration and damage of external force;
 - f. Damage caused by unforeseen circumstances such as accidents / disasters;
 - g. Products that have been dismantled / modified / repaired by users;
 - h. Damage beyond warranty or caused by failure to use/maintain/save as required by the product instructions.

11 Warning

Risk of explosion if the battery is replaced by an incompatible one; Please dispose of used batteries according to the instructions.

12 Judgment of Common Problems

1. Judge by indicator status

- LED Light of Command Tower:

Light Display	Blue light flashes slowly	Blue light flashes quickly	Red light constantly on	Green light constantly on	Blue light constantly on	Pink purple light constantly on	LED off
Status	Not connected	Low power	Charging	Fully charged	Connected pairing	The machine is on charging but not fully charged	LED light is damaged
Solution	Pair again	Recharge					Return to manufacturer for repair

- MatataBot LED Light:

Light Display	Blue light flashes slowly	Blue light flashes quickly	Red light constantly on	Green light constantly on	Blue light constantly on	LED off
Status	Not connected	Low power	Charging	Fully charged	Connected pairing	LED light is damaged
Solution	Pair again	Recharge				Please visit www.matatalab.com for after sales support

- Control Board LED Light:

Light Display	Orange light flashes	Orange light constantly on
Status	Executing instruction	Command Tower is not working

2. Interrupted MatataBot wheel movement Unable to move / stuck when moving / squeaky

Solutions:

- Check the wheels for stuck objects, and gently roll the wheels manually;
- Charge the MatataBot and try again after charging;
- If it fails, please contact our after-sale service for technical support.

3. Inaccurate MatataBot movement: Fails to move straightly / severe irregular shapes drawn by it / inaccurate angle

Solutions: Visit <http://help.matatalab.com/> for get methods of correcting angle and distance for optimization.

4. The connection between the Command Tower and the robot is normal. But after pressing the start button, the robot does not execute the command after issuing the startup sound effect.

Solution:

The robot has received the bluetooth signal. The issue may be related to the Command Tower's recognition failure or stuck robotic wheels.

"Recognition Problems" Solutions:

Step 1. Check whether the control board is covered by highlights or shadows, and then change the position of the Command Tower to elsewhere with normal light and try again. If it does not work, move to step 3.

Step 2. Check whether execution failures occur occasionally. If so, please move the coding blocks to the center area of the control board and observe if the execution is successful. If not, go to step 3.

Step 3. Press and hold the start button for 10s. When the start button is released, the MatataBot will make a "ding" sound. Then return the machine to the manufacturer for repair. [This is to collect on-site environmental data to facilitate after-sales to find

13 For more help

Please visit www.matatalab.com for more product instructions, exceptions and troubleshooting, and software updates, among others.

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

MATATALAB CO., LTD.

Floor 2, Building 5, Pingshan Minqi Technology Park, Xili Town, Nanshan District, Shenzhen, China

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this 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.

Frequency range: 2402MHz-2480MHz

Max power for Bluetooth: $\leq -4\text{dBm(BLE)}$

The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of 20 cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and human body.

Hereby, MATATALAB CO., LTD declares that the radio equipment type MTT1801/B MTB1801/B are in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.matatalab.com/doc



This device complies with the essential requirements and other relevant provisions of the Low Voltage Directive 2014/35/EU, the EMC Directive 2014/30/EU, the Eco-Design Directive 2009/125/EC and the ROHS Directive 2011/65/EU.



WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT(WEEE)

The WEEE marking indicates that this product should not be disposed with regular household waste at the end of its life cycle. This regulation is created to prevent any possible harm to the environment or human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled on an environmentally friendly manner, and will help to protect the environment in which we all live.

Warranty

Warranty period: One (1) Year limited

The following circumstances will void the free warranty:

Not able to provide this warranty certificate, and valid invoice.

This warranty is unilaterally modified or incompatible with the product.

Natural consumption/ wear and aging of consumable parts.

Damage caused by lightning or other electrical system problems.

Damage caused by improper use, such as external force, damage, etc.

Damage caused by force majeure factors such as accidents/ disasters.

Self-dismantled/ reassembled/ repaired products.

Product exceeds warranty period.

Abuse or misuse, including but not solely limited to the failure to use this product beyond the user manual.

Caution-electric Toy

Not Recommended For Children Under 3 Years Of Ages. As With All Electric Products, Precautions Should Be

Observed During Handling And Use To Prevent Electric Shock.

Conforms To The Requirements Of Astm Standard Consumer Safety Specifications On Toy Safety F963.



WARNING

CHOKING HAZARD-Toy contains small parts. Not for children under 3 years.



Designed by MATATALAB in China

MATATALAB CO., LTD.

NO.504, Building B, Jianxing Technology
Building, 3151 Shahe West Road, Nanshan
District, Shenzhen, Guangdong, China,
518055

FCC STATEMENT :

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

- (1) This device may not cause harmful interference, and
- (2) 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.

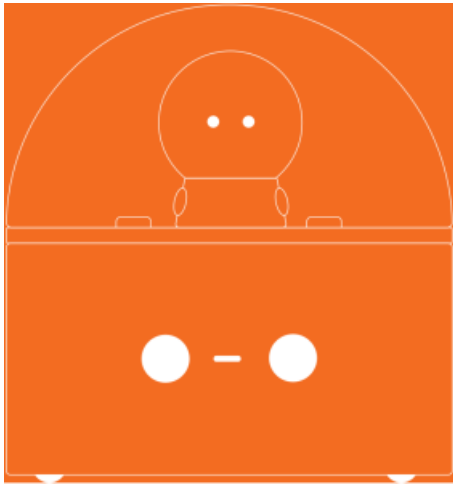
Increase the separation between the equipment and receiver.

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.



www.matatalab.com

Documents / Resources

	<p>Matatalab MTB2106 Command Tower [pdf] User Guide MTB2106, 2APCMMTB2106, MTB2106 Command Tower, Command Tower, Tower</p>
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