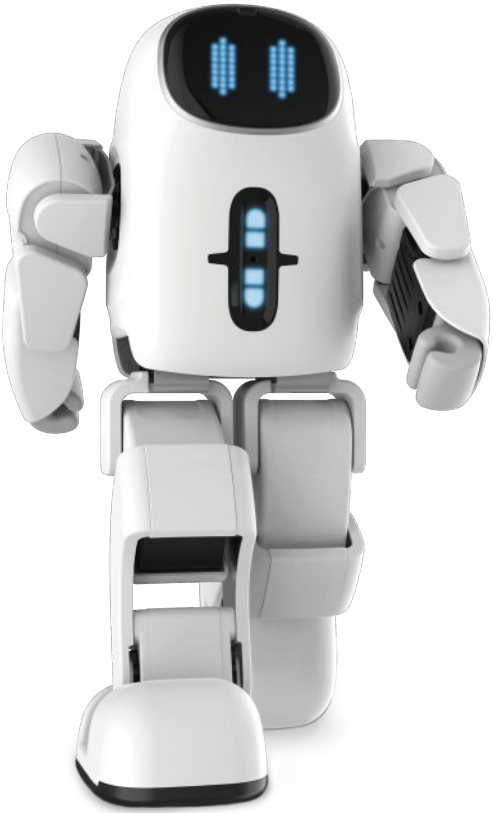
LEJU ROBOT

Gentle | Wisdom | Ingenious



P A N D O

User Manual

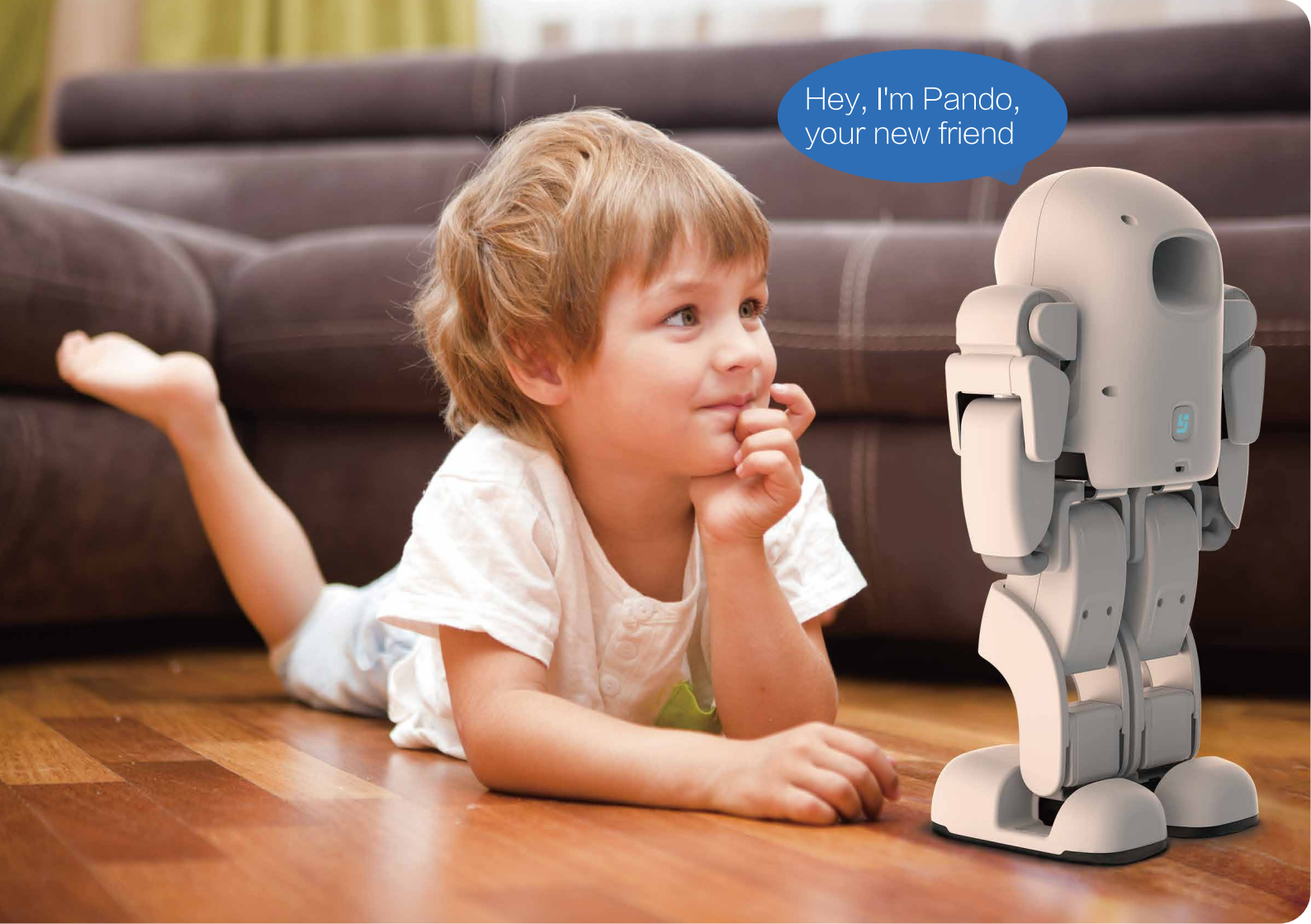

Hey, I'm Pando,
your new friend

Table of Contents

Caution 2

What Can I Do? 3

About My Body 5

Packing List 6

Power 7

Mode Switching 8

Gesture Control 9

App Connection 10

Remote Control 11

My Robot 12

Mission Mode 13

Action Programming 15

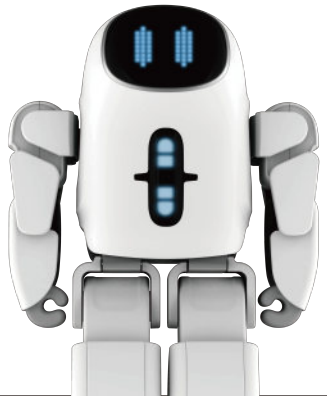
Blockly Programming 17

Disclaimer 19

FAQ 20

Warranty 21

Product Spec. 22

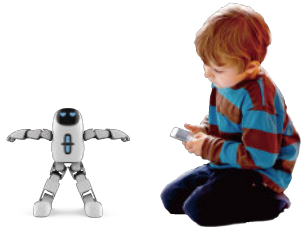


Caution

1. It is recommended that users of this product should be over 8 years old.
2. When using Pando, keep an appropriate distance from Pando to prevent violent action from unnecessary personal injury.
3. Do not dismantle Pando by yourself. Ask your local distributor for reasonable maintenance if Pando does not work.
4. Please stay away from water and fire, and play with Pando in flat and smooth place.
5. When in use, please avoid Pando being hit hard. If Pando’s action is abnormal, turn off the machine immediately to prevent damage.
6. When Pando is running, do not apply force to Pando’s joints to avoid damaging the servo and main control board.
7. Pando should be placed in the center of the flat surface or table to avoid falling from the height.
8. Battery charging time is about 3 hours, working time is about 90 minutes.
9. If play with Pando for a long time, it is normal to cause the servo overheat, please turn off Pando until the servo is cool naturally.
10. If there is smoke or smell of burning during operation, please turn off the power immediately and contact the local after-sales service center.
11. If there is water or foreign matter entering the Pando, please turn off the power and contact the local after-sales service center.
12. If Pando does not respond to app or remote control, restart or power up and retry, do not hit it hard.
13. If the servo is damaged, please contact your local distributor for repair, do not change parts by yourself.
14. Pando is precision instruments, please take adequate precautions during transportation.

What Can I Do

Emotion Interaction



I'm a robot with emotion, play with me more, you will discover more secrets of me.

Online Missions

Action Matching

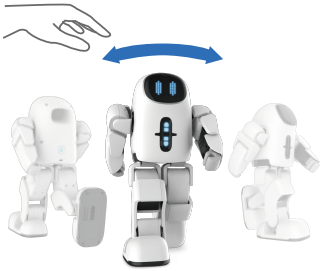
Order Guessing

Angle Guessing

Blockly Programming

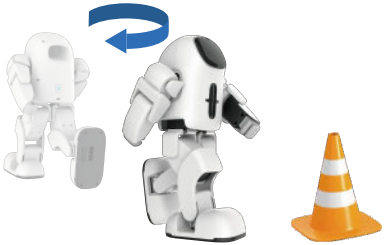
Different kinds of fun and challenging live update missions.

Gesture Control



I can read your gesture, just wave your hand and I know where to go.

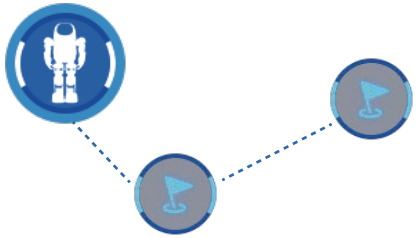
Obstacle Detection



I'm smart enough to detect obstacles in front of me.

What Can I Do

Action Programming

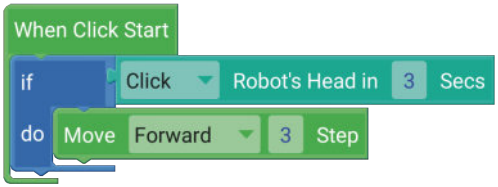


You can train me to make any poses you like.

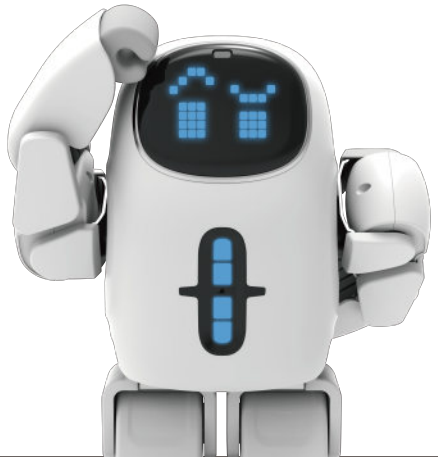
BT Controller(optional)

You can control me by BT controller as well as Smart Phone.

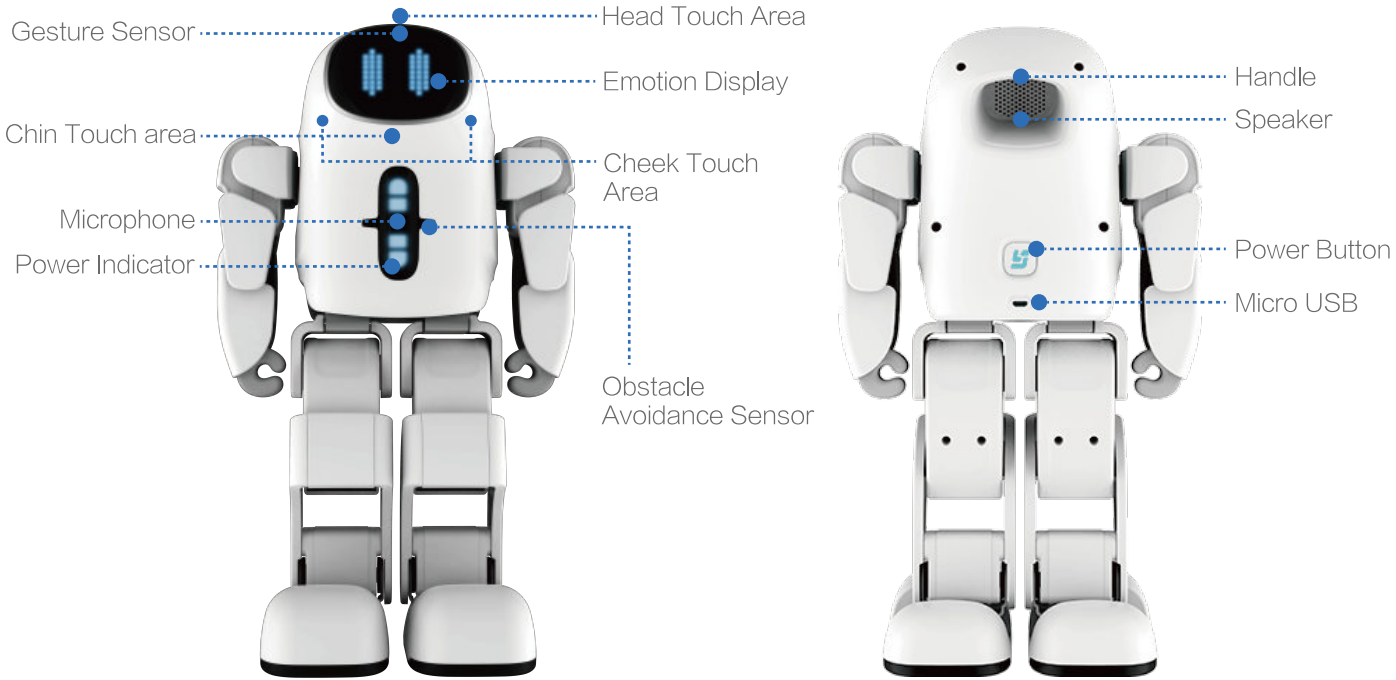
Blockly Programming



If you can play building blocks, you can make your own program.

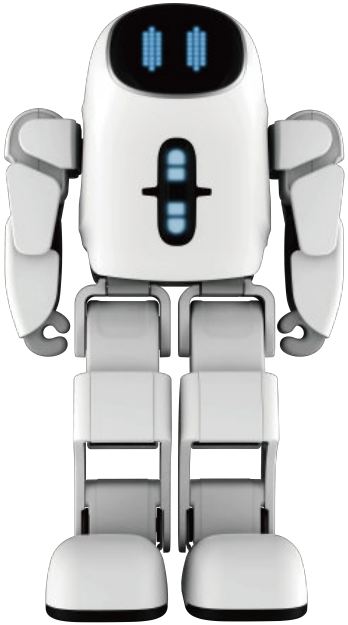


About My Body

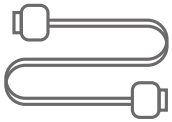


Tips: The cheek touch area, chin touch area, gesture sensor and obstacle avoidance sensor can be called in blockly programming.

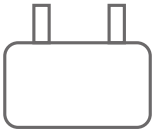
Packing List



Pando Robot X 1



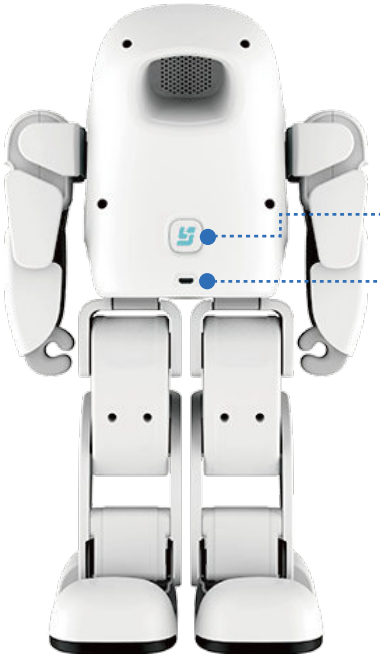
USB Power Cable X1



Power Adapter X1

User Manual X1

Power



Power on: press the power button to wake me up.
Power off: press the power button again when Pando is on.

Charging: plug the charger into the charging port to charge me! It takes about 3 hours to fully charge me, When charging, it displays orange lights and display green light when charge complete.

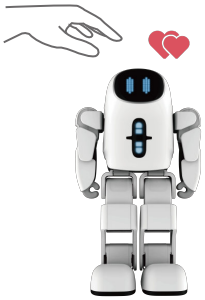
Power Button Indicator

Attention!Children must charge Pando under the supervision of adults.

Mode Switching

Auto Mode

In auto mode, I will explore everywhere and try to avoid obstacles, sometimes I will show you the actions I have learned. When I show my expectations, I'll be happy if you touch my head.You can enter this mode via the mode switch button on the home page of the app.



Off-line Mode

In this mode you can playback programs in the block programming without smart phone. Just press the write button in the save page of the Blockly Programming, then enter the burning mode.

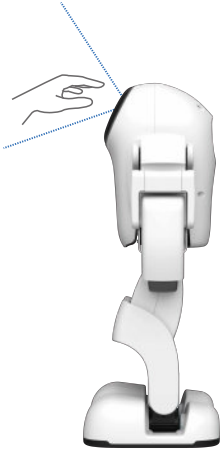
Tips: There are short path to enter different modes
1.Auto Mode: press [Head Touch Area] in 3 seconds after startup.
2.Off-line Mode: press [Chin Area] in 3 seconds after startup.

Gesture Control

How to Start Gesture Control?

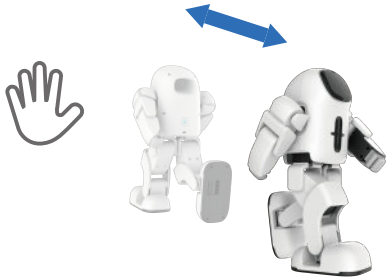
In auto mode,when I display expect face you can control me by gesture.

Detection Range



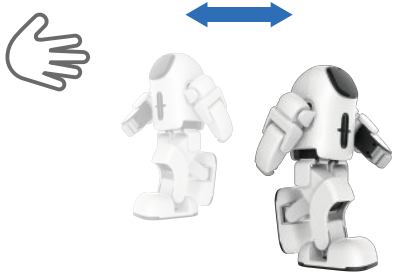
Forward and Backward Movement

When you wave hand forward or backward, I can walk forward or backward.



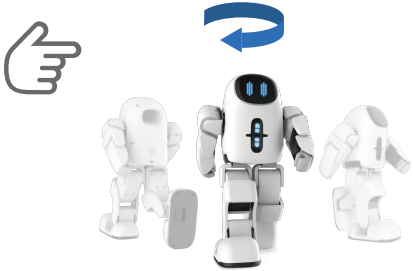
Left and Right Movement

When you wave hand left or right, I can walk left or right.



Left and Right Spin

When you rotate you finger clockwise or anti-clockwise, I can spin.



Tips: Gestures can be called in blockly programming.

App Connection

App Download

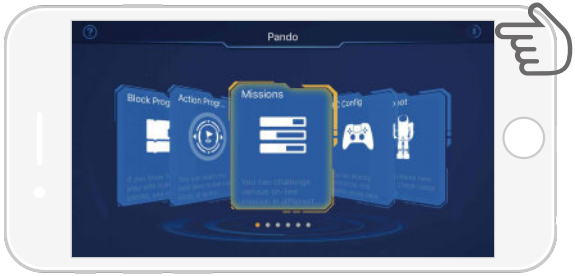
Scan QR code to download

APP or visit our website:

www.lejurobot.com/support

Scan QR code to download APP

Connect to Smart Phone

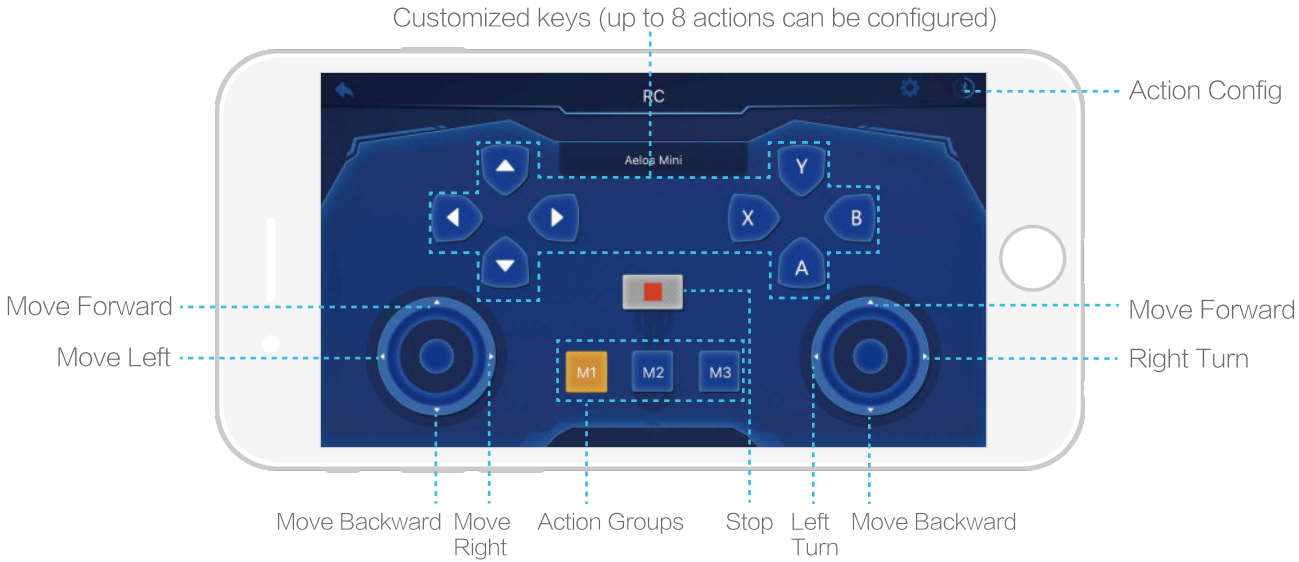


Click the Bluetooth icon in the upper right corner of the home page to enter the automatic search interface.

Click the robot find to complete the connection.

Tips: Only the first time need to connect, next time I will automatically connect.

Remote Control



How to Config Action:

1 Click the Action Config icon in the upper right corner of the remote control configuration screen.

2 Long press the action you like, and the action icon will be highlighted.

3 Move to your favorite remote button and let go, the action will map to the button.

(!) Tips: the custom button is full? Just repeat the above steps and you can override them automatically.

My Robot

1	Name	The name found by Bluetooth is printed on the bottom of my foot.
2	Emotion Point	Interact with me often increases the Emotion Point, and a higher Emotion Point leads to more reward points after completing a mission.
3	Level	The higher the level, the more skills you are eligible to buy.
4	Resource Point	Get points via completion of missions, action programming, and block programming, Points can be used to buy new skills.
5	Skills	The number of skills you owned.
6	Skill Type	Skills are divided into Basic, Sport, Art and Story skills.
7	Unlock Skills	If Resource Points and Level you earned are enough, you can unlock skills.

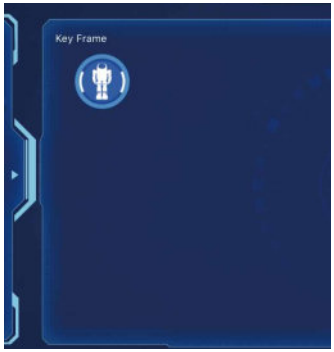
Mission Mode

1	Mission Ranks	Mission ranks increases from 1 star to 5 stars, the more stars, the harder the mission complete.
2	Demo Video	Refer to this video to complete the mission.
3	Try Button	Click "Try" to enter the mission and submit it to win the bonus points.

Tips:You will be rewarded more by maintaining a high degree of Emotion Points and choosing high-level missions.

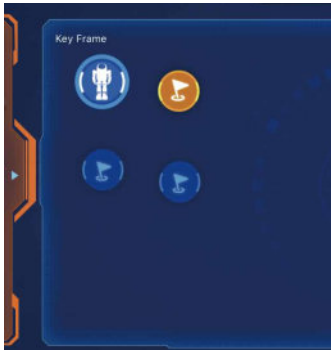
Four Types of Mission

Action Matching



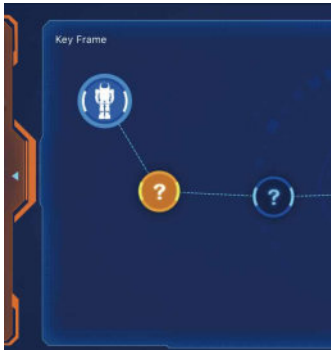
According to the demo video, try to keep your own action similar to the demo.

Order Guessing



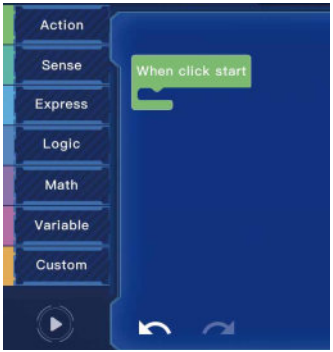
According to the demo video, correctly arrange the key frame order.

Angle Guessing



According to demo video, fill the key frame with the correct servo angle.

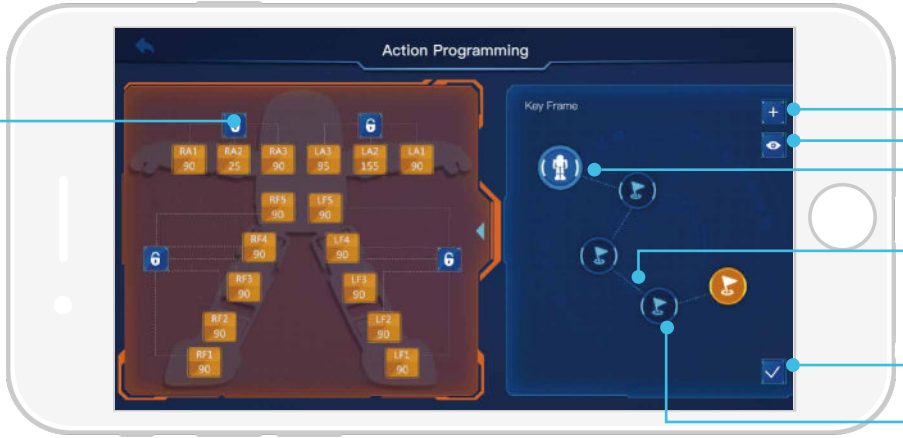
Blockly Programming



According to the mission introduction, the correct combination of blocks can complete the mission.

Tips:All of missions will be updated online，you will be surprised if you check out frequently.

Action Programming



Lock / Unlock Servo 1

2 Add Key Frame

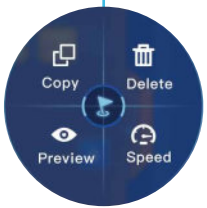
3 Action Preview

4 Starting Key Frame

5 Frame Connection Line

6 Mission Submission

7 Key Frame

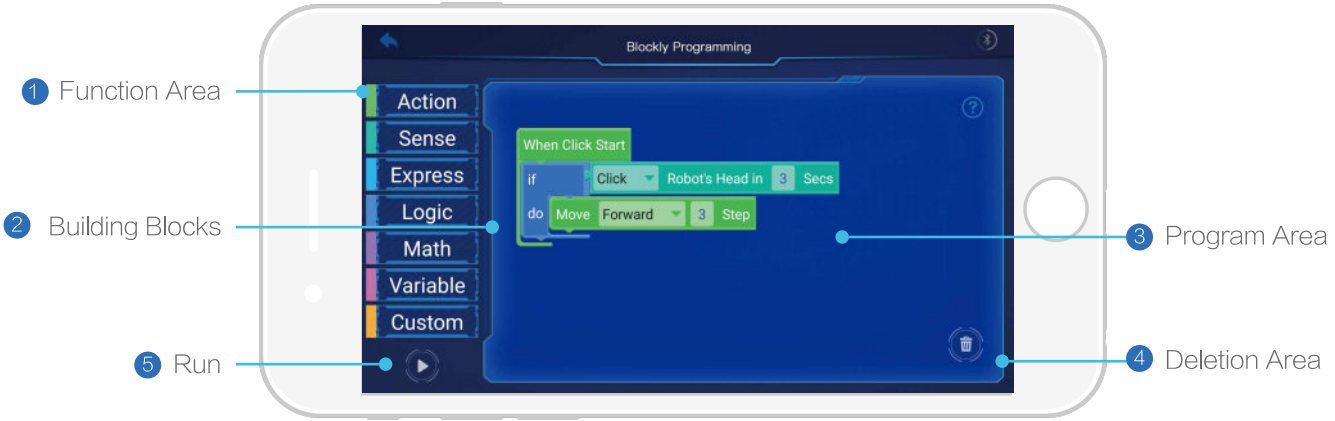


1	Lock/Unlock	When locking, the parameters of the servo can be adjusted by clicking on the servo of the locking group, and the angle of the servo can be adjusted by twisting the joint after unlocking.
2	Add Key Frame	Add a new key frame.
3	Action Preview	Preview the keyframe action that has been connected.
4	Starting Key Frame	Ordinary key frames can be executed only after connection with the starting key frame, and can not be deleted or duplicated.
5	Frame Connection Line	The action will start from the start key frame in the order of connection.
6	Mission Submission	Click confirm to submit the current mission(this button only appears in the mission mode).
7	Key Frame	Key frame action is based on key frames, and key frames can be combined to form a complete movement. Click: frame selection, you can set the servo state of the frame. Double click: frame editing, you can copy, delete, preview, and frame speed settings. Long Click: frame connection, starting with this frame, connecting other frames.

Action Programming – Example

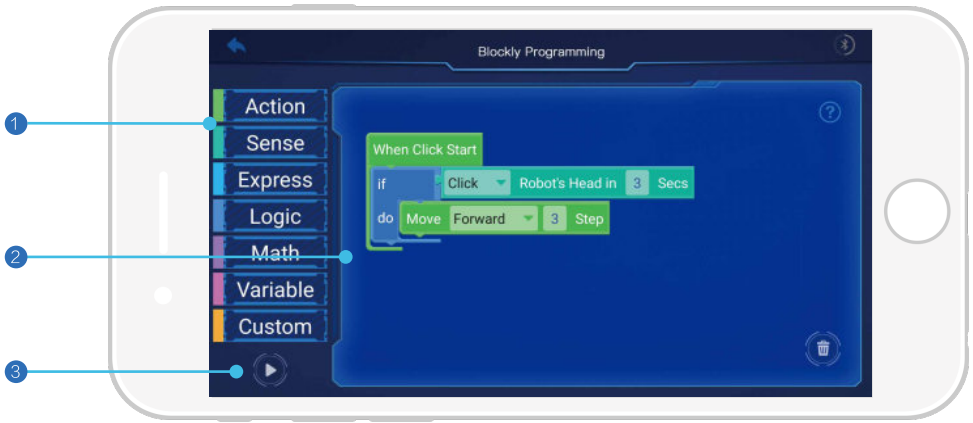
1. Click the "Add Key Frame"button, add 2 key frames.
2. Click on the first frame, it will be highlighted, click on the servo control panel on the left side, and set the RA3 to 90 degrees.
3. Return to the action programming homepage, select second frame, set RA3 to 0 degrees.
4. Return to the action programming homepage, press the " Starting Key Frame ", and connect the first frame and the second frame in sequence.
5. Click the "Aciton Preview", Pando starts to demonstrate the editing action.

Blockly Programming



1	Function Area	The function area contains all kinds of logic functions and the skills robot owned.
2	Building Blocks	Block is the smallest unit for blockly programming, each one represent a specific logical function or skill.
3	Programming Area	You can operate blocks in this area, the connections are highlighted to indicate that they can be connected together.
4	Deletion Area	Drag the block to this area, and release the finger to complete the deletion.
5	Run	Running connected block .

Blockly Programming – Example



1. Click on the blocks area on the left side and select the blocks you need in the page.
2. Connect the blocks in the programming area.
3. Click run button to run your program.

Dislaimer

In order to safeguard the legitimate rights and interests of consumers, clear Leju (Shenzhen) Robotics Co. Ltd. (hereinafter referred to as Leju company) the sale of product liability issues, consumers should read the terms carefully before purchase,this document for the exemption, the responsibility for the right to give up, bear the risk and compensation agreement.Consumers who purchase the company's products are deemed to agree and comply with the terms of this provision, andshall perform the obligations of the terms and conditions.

1. Before using robot to read the manual, and in strict accordance with user manual to use robot products, not in accordance with the instructions for use of products (including robot products and related accessories and related products) caused by hardware failures, damage and personal injury, Leju companies do not bear any legal responsibility.
2. Users can use the relevant control software developed by Leju company to operate of the robot, but without Leju permission, the user is not authorized to any means of software decompile, upgrade, imitation, improvement of operation. For the parties without the company's permission to modify the relevant software without music, the company has the right to pursue its legal liability.
3. The use of Leju company specified APP and PC terminal’s control software for the control of the robot, not in accordance with the above instructions or modify the above software to use products (including Robot product and related accessories), Any caused fault, damage and personal injury, Leju company does not undertake any responsibility.
4. For the purchase and the use of the robot ,any needs of the account and password service, the user to bear the responsibility for the custody of the registered account and password, and its account and password items under the full responsibility for all activities. Lost due to the user account or loss caused by the loss of the user, the company does not assume any responsibility.
5. Through the Leju’s App link other platforms access to all the information, the authenticity, accuracy and integrity of information, Leju company does not bear any responsibility. Because the link is not under of the Leju company's control. Leju company on the user to use other information on the platform suffered any loss does not bear any liability.
6. With a variety of free products and services or provide paid services with free gift or service by Leju company, any loss caused.

Frequent Questions

Q: Pando cannot be detected?

Answer: 1. Check if you already power on Pando ; 2. Check the battery is in full condition; 3.Ensure your cell phone's Bluetooth is on; 4.Restart your App and Robot.

Q: Pando not restore the initial state and do not execute the action command?

Answer: 1. Restart app; 2. Restart Pando;
If the above two methods cannot work, please contact after-sales service.

Q: Could not power on Pando? Pando cannot stand normally after started?

Answer: 1. Please confirm whether the robot is fully charged, then restart Pando again; 2. It may cause the servo to be damaged because of the improper use of Pando. Please contact the manufacturer in time to repair the damage.

Q: Can I connect mobile power, mobile phone charger to Pando?

Answer: Yes, but only for recharging purpose.

Q: APP can't control Pando when charging?

Answer: For safety reason, Pando can not move during charging.

Warranty

1、For Robot unit, generally the warranty is one year,except digital servo motor, 6 months only.

2、More detailed warranty policy, please contact with your local distributor.

Warranty

FCC Warning Statement

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.

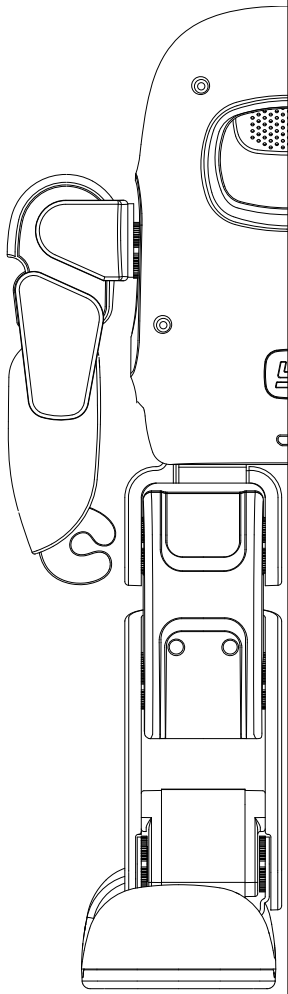
Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

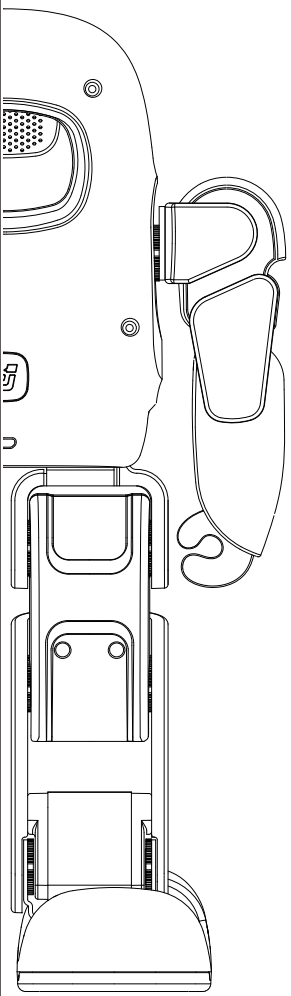
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

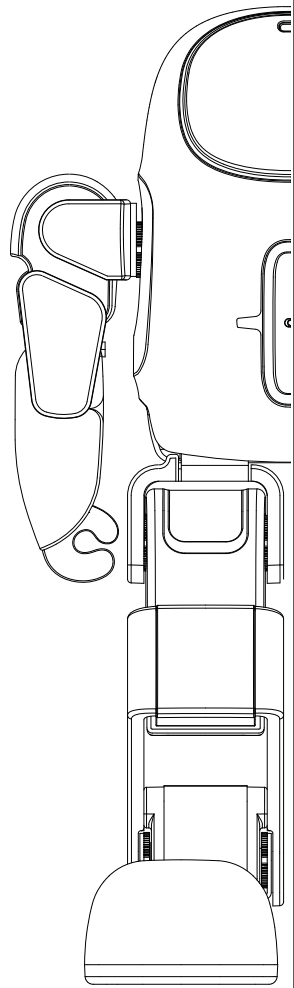
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Product Spec.

Product Parameters	
Dimension	365 X 209 X 136 mm
Weight	1.8KG
Working Voltage	DC 7V-8.4V
Working Current	1A-3A
Interface	Micro USB
Working Environment	Temperature -10℃~45℃ Humidity 10℃~95℃







Scan QR code to download APP

LEJU ROBOT

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