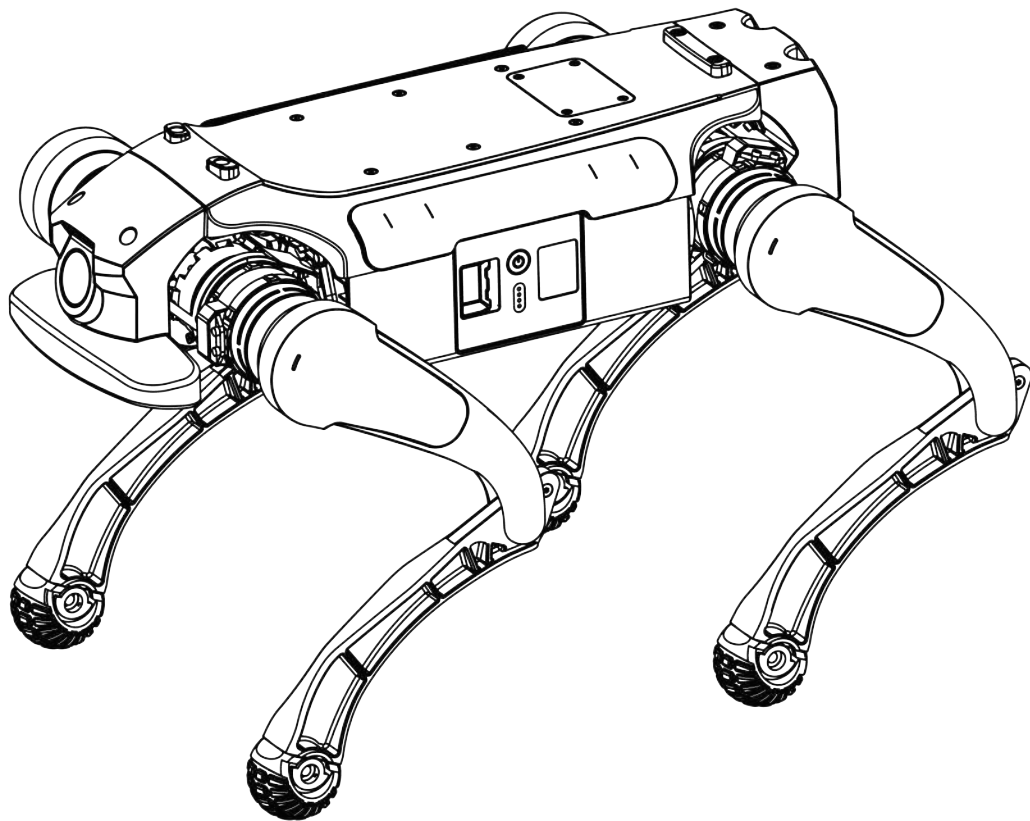


GangBeng L1 Series

User Manual



01

Legal Disclaimer

Before using this product, users must carefully read the "User Manual for Bionic Quadruped Robot L1 Series Products". (hereinafter referred to as "this Manual"; the bionic quadruped robot is hereinafter referred to as the "robot dog") and strictly follow the operating instructions provided herein.

The company shall not be held liable for any property damage or personal injury resulting from misuse or failure to adhere to the guidelines in this Manual. This product consists of multiple components—please ensure that it is kept out of reach of children to prevent accidents. This product is intended for use by individuals aged 18 and above only.

To prolong the service life of the product, do not use it in environments with high temperature or high pressure.

This Manual is intended to provide comprehensive information on the product's functions and usage. However, due to continuous improvements and design updates, there may be discrepancies between the actual product and the descriptions in this Manual. In case of any differences in color, appearance, or other aspects, the actual product shall prevail.

The certified model of L1 is ZSL-1, and the certified model of L1-W is ZSXG02.

02 Usage Restrictions



- This product must not be used by individuals with physical, sensory, or mental impairments, or by those lacking relevant experience and knowledge (including children), unless supervised or instructed by a responsible guardian to ensure safe operation.
- Do not allow children to treat this product as a toy. Supervise children and pets during operation to keep them at a safe distance.
- If the power cord is damaged, it must be replaced with a special cord or component obtained from the manufacturer or authorized service provider.
- Do not operate the product in elevated areas without protective barriers.
- If the product exhibits abnormal behavior such as leg flailing or violent shaking, press the Emergency Stop button to activate the soft-stop safety mode. The robot will automatically lie down. Resume operation only after troubleshooting and resolving the issue.
- Do not place the product upside down. Do not use the robot's legs as handles for carrying.
- Do not operate the product in environments above 40°C or below 0°C.
- Do not operate the product in areas with electromagnetic interference.
- Do not operate the product in environments with Wi-Fi or 2.4G signal interference.
- Before starting the product, ensure there is at least 1 meter of clear space around it, with no people or objects in the motion path, to prevent collisions.
- When the product is ascending or descending stairs or slopes, do not stand below it to avoid injury in case of a fall.
- Do not place children, pets, or any objects on the robot, whether it is in motion or stationary.
- Do not insert hands into the range of motion of the robot's joints during transport, to avoid pinching or cuts.
- Power off the robot and unplug the power cord before cleaning or performing maintenance on the robot or charging dock.
- Do not wipe the robot or charging dock with a wet cloth or rinse them with any liquids.



Moving parts, keep body parts away from moving parts.

- Do not disassemble, repair, or modify the robot, battery, or charging dock. Unauthorized modifications or repairs will void the warranty.
- Do not place the charging dock near heat sources.
- Do not dispose of used batteries in household waste. They should be handled by certified recycling facilities.
- If the product will not be used for an extended period, fully charge the battery, turn off the robot, and store it in a cool, dry place. Recharge at least once every 3 months to prevent battery over-discharge.
- When transporting the product, ensure it is powered off and preferably packed in its original packaging.
- Always operate the product in accordance with the instructions in this manual. The user assumes full responsibility for any damage or injury caused by improper use.
- This product is intended for commercial, civilian, and research applications only. Military use is strictly prohibited.

03 Precautions

(1) Joint and Cable Inspection

Check for any foreign objects around the joints, inspect all cables for damage, and ensure that the foot pads are intact and undamaged.

(2) Battery Level and Camera Cleaning

Check for any foreign objects around the joints, inspect all cables for damage, and ensure that the foot pads are intact and undamaged.

(3) Product Cleaning Caution

Do not use alcohol or any liquid containing solvents or corrosive substances to clean this product.

(4) Proper Placement and Ground Conditions

When placing the robot, ensure that the legs are in a naturally unloaded state to prevent stress on the joints. Do not rest the robot on hard, sharp, or uneven surfaces to avoid scratching the body.

(5) Foot Pad Wear

When placing the robot, ensure that the legs are in a naturally unloaded state to prevent stress on the joints. Do not rest the robot on hard, sharp, or uneven surfaces to avoid scratching the body.

(6) Safe Operation and Terrain Adaptability

Keep the robot within your line of sight and maintain a safe distance from obstacles and potential collision points. Although the robot has good terrain adaptability, always assess whether the surface is appropriate.

(7) Speed, Turning, and Complex Terrain

Sharp or fast turns may cause loss of control, especially on steep, uneven, or unknown terrain. Avoid risky maneuvers and reduce speed accordingly.

(8) Steep Slopes and Climbing Angles

Operate within the specified maximum climbing angle. Avoid turning sharply on steep slopes to prevent loss of stability. Exercise caution on steep or inclined surfaces.

(9) Maximum Speed and Prohibited Usage Environments

The robot can reach speeds up to 3.5 m/s on flat surfaces. Do not use it on complex terrain, slippery surfaces, cluttered areas, slopes beyond specification, or near sharp objects.

(10) Joint and Battery Condition Check

If you notice loose joints, failure to stand, or excessive noise during operation, stop use immediately, power off the robot, and seek professional service.

(11) Low Battery Warning

When the battery is low, the robot may not have sufficient power to perform movements. Charge promptly to avoid accidents.

(12) Safety Precautions

Avoid contact with moving parts to prevent pinching or injury. Do not touch exposed metal surfaces of joint motors during or immediately after operation to avoid burns.

(13) Heat Dissipation and Cleaning

Prolonged operation may cause motor overheating. Allow the robot to rest periodically. Clean the product promptly if it becomes dirty.

(14) Power Supply Specifications

Use only fast-charging cables that meet the product's specifications.

(15) Shutdown Notice

Power off the robot immediately after use.

04 Battery and Charging Precautions

(1) Battery Usage Restrictions

Do not disassemble the battery or extract the battery electrodes for use by any means.

(2) Adapter and Cleaning

Do not clean the power adapter with alcohol or other flammable agents to avoid potential safety hazards.

(3) In Case of Battery Leakage

If battery leakage causes electrolyte to come into contact with your eyes, avoid rubbing them. Rinse immediately with clean water and seek medical attention promptly.

(4) Abnormal Conditions

If the battery emits an unusual odor, smokes, deforms, or exhibits other abnormalities during charging, unplug the power adapter immediately and inspect the device.

(5) Safe Temperature

The power adapter may become hot during charging. Avoid prolonged contact to prevent burns.

(6) Power Adapter

Do not use a damaged power adapter. Only use the official power adapter. Using unofficial adapters may result in battery leakage, overheating, fire, or explosion.

(7) Charging Time

The battery charging time should not exceed 24 hours. Overcharging may reduce battery lifespan.

Warning

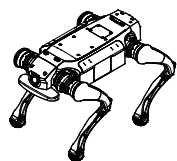
- replacement of a battery with an incorrect type that can defeat a safeguard;
- disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;
- a battery subjected to extremely low air pressure that can result in an explosion or the leakage of flammable liquid or gas. Risk of fire or explosion if the battery is replaced by an incorrect type.

05 Product Introduction

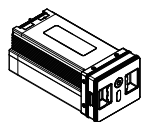
(1) Product Overview

This product features a foot-based version with 12 degrees of freedom and a wheel-based version with 16 degrees of freedom, enabling a variety of walking gaits and locomotion behaviors. Additionally, this product provides an SDK for developing motion control algorithms and a communication protocol, allowing users to perform secondary development according to their specific needs.

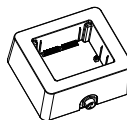
(2) Product list



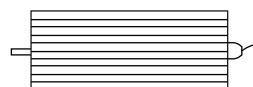
Quadruped robot body × 1
(battery not included)



Battery × 1



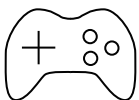
Charging Dock × 1



Adapter × 1



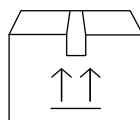
Adapter Power Cable × 1



Remote Controller × 1 (optional)



User Manual × 1



Transport Case × 1



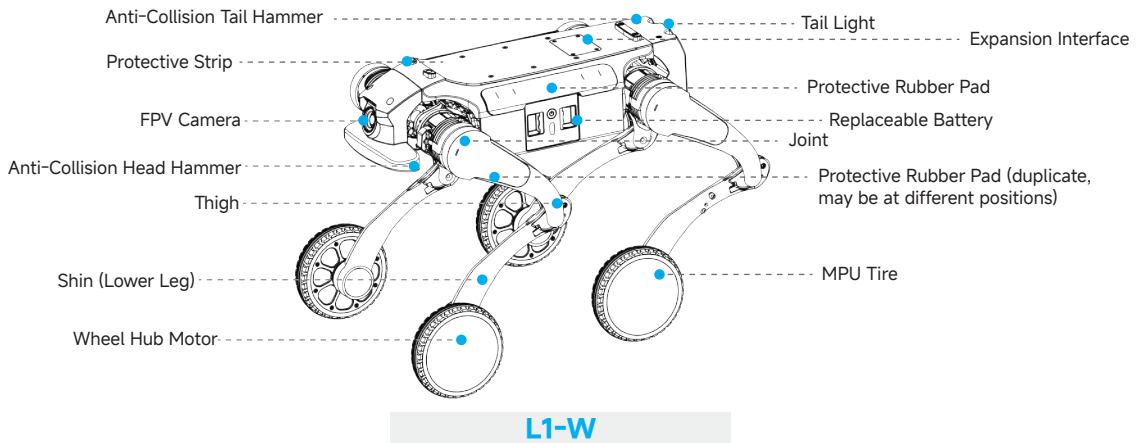
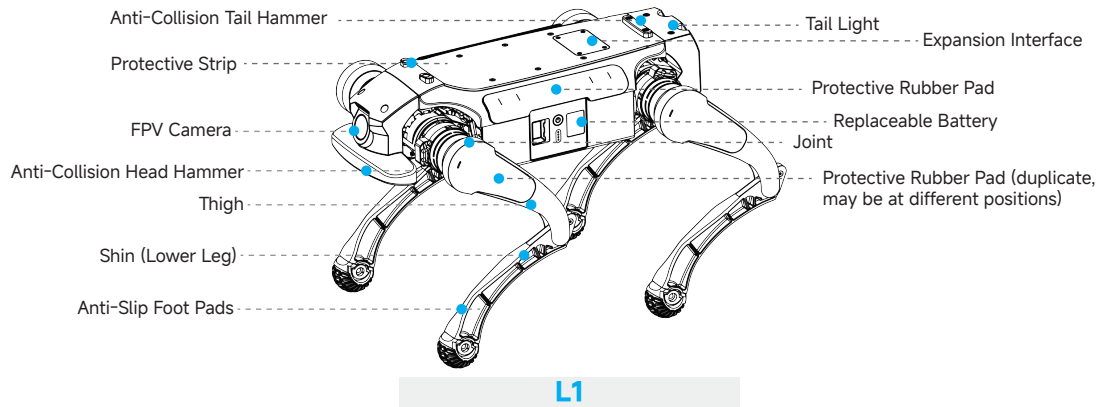
Anti-slip Foot Pads × 4



Tool Kit × 1

(3) Parts Description

5.3.1 Main Body Overview



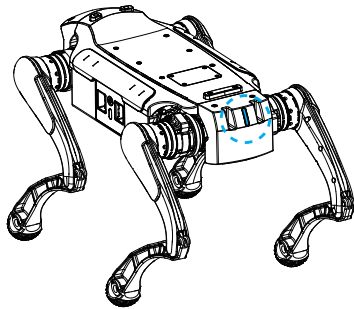
5.3.2 Expansion Port

No.	Interface Name	Quantity	Description	Remarks
1	Ethernet Port	1	RJ45 Interface: Supports 1000 Mbps transmission speed for high-speed data transfer. It is used for network connectivity, remote monitoring, data transmission, and other related applications.	
2	USB Port	2	Type-A Interface: Used to connect external storage devices, cameras, sensors, and other USB devices. It provides high-speed data transfer and power supply.	
3	Power Port	2	Standard DC power interface, providing stable power supply, supporting 12V and BATAT outputs, with the total power of 12V output not exceeding 36W and the total power of BATAT output not exceeding 100W, meeting the power requirements of the robotic dog and its upper-mounted equipment.	
4	SBUS Port	1	Standard SBUS Interface: Used to connect remote controller receivers or other communication devices supporting the SBUS protocol, enabling precise remote control command transmission.	
5	UART Port	1	Standard UART Interface: Used to connect embedded systems, communication devices, or other devices supporting the UART protocol. It facilitates data exchange and control between devices through asynchronous serial communication.	

Disassembly and Installation Method

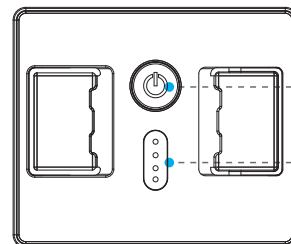
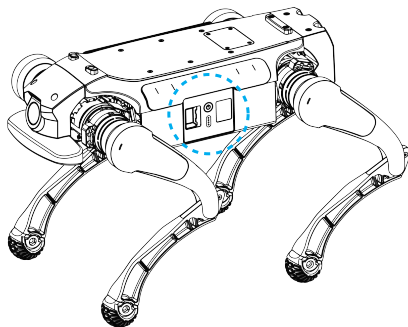
Use the 2mm hex screwdriver included in the toolkit to loosen the four M4 screws in sequence and remove the cover plate. To reinstall, place the cover plate back and tighten the screws in order.

5.3.3 Light Effect Introduction



The light of a lamp	Lamp signal	Remarks
Blue is always on	The boot is complete	
Blue flashing	On the way to boot	
White is always on	Rage mode	In this mode, your movement ability is improved and special skills are unlocked
The green light is always on	The tracking mode is enabled	
The yellow light is always on	The battery is less than 20% charged	The battery is too low to enable the rage mode
The yellow light is flashing	Battery power is less than 5%	The battery is low and needs to be charged immediately
The red light is always on	The joints are too hot and need to be cooled	
Blinking red lamp	The system is abnormal and needs to contact the after-sales service	

5.4 Power Introduction



power switch

pilot lamp

5.4.1 Battery display in on state

Battery capacity LED indicator (idle and discharge)

No.	SOC(%)	LED1	LED2	LED3	LED4
1	0~14	Flashing	OFF	OFF	OFF
2	15~24	ON	OFF	OFF	OFF
3	25~49	ON	ON	OFF	OFF
4	50~74	ON	ON	ON	OFF
5	75~100	ON	ON	ON	ON

5.4.2 Battery display in charge state

Battery capacity LED indicator (charging)

No.	SOC(%)	LED1	LED2	LED3	LED4
1	0~24	Flashing	OFF	OFF	OFF
2	25~49	ON	Flashing	OFF	OFF
3	50~74	ON	ON	Flashing	OFF
4	75~99	ON	ON	ON	Flashing
5	100	ON	ON	ON	ON

5.4.3 Power adapter



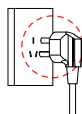
Light off	No power
Light on	Connect mains power (100V~240V)

5.4.4 Charging Instructions

Please ensure that both operators and non-operators present have carefully read this manual and are familiar with the basic operating procedures and safety precautions.



1. Connect charging dock
Insert the charging cable plug into the bottom port of the charging dock.



2. Connect the power supply
After confirming the connection is secure, insert the power plug into the socket.



3. Place the battery
Insert the battery into the charging dock; charging begins when the indicator light turns on.



To ensure electrical safety:

1. Please follow the steps in the above order and avoid connecting the power supply before the charging dock.
2. Do not plug or unplug the charging dock port while it is powered.

06 Preparation before first use

Ensure that all personnel present, including both operators and non-operators, have carefully read this manual and understand the basic operating procedures and safety precautions. Remove the robot dog from the packaging box and place it on a flat surface.

Remove the battery and insert it into the robot dog's battery compartment.

Briefly press the battery power button once, then press and hold for 5 seconds, release, and wait 20 seconds to complete the power-on process.

Product Usage Statement: Due to continuous software upgrades, some functions, operation methods, or interface displays may differ from those described in this manual. If you have any questions or operational difficulties, please contact official customer service for technical support.

6.2.1 Remote Control with Screen

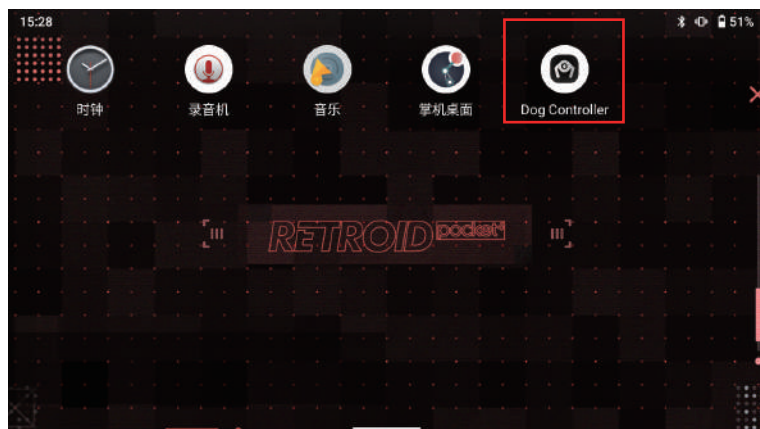
6.2.1.1 Remote Control Introduction



6.2.1.2 Connection Method

1. Press and hold the power button on the top of the remote control to power on.

2. Click "Smart Robot Controller" to enter the application.



3. Display the APP main page



4. System general settings interface. Click the button in the upper left corner to enter.

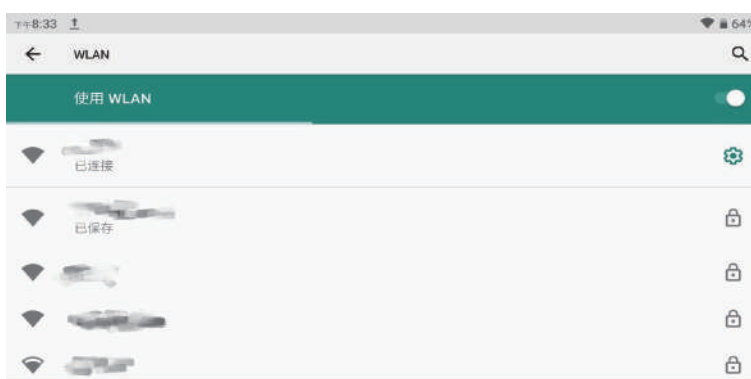




5. Click "Not Connected" in the upper right corner to connect the remote control.



6. Select the robot dog WiFi to connect to. The WiFi name can be found on the robot dog nameplate, refer to the format "XG01_3BW001"



7. Connection successful.



6.2.1.3 Operation Instructions

This product provides two operating modes: Normal Mode and Frenzy Mode.

Normal Mode: Possesses stable normal movement capabilities and standard movements, suitable for daily use.

Berserk Mode: While enhancing movement performance, unlocks more special moves, suitable for scientific research and demonstration scenarios.

Move list as follows:

Category	Action	L1		L1-W	
		Normal Mode	Berserk Mode	Normal Mode	Berserk Mode
General Actions	Stand	✓	✓	✓	✓
	Dampen (Slow Kneel Down)	✓	✓	✓	✓
	Lie Down (Emergency Stop)	✓	✓	✓	✓
In-place Actions	Move Forward/Backward/Left/Right	✓	✓	✓	✓
	Pitch Adjustment	✓	✓	✓	✓
	Turn Around Horizontally	✓	X	✓	X
	Left/Right Head Nod	✓	✓	✓	✓
	High/Low Stance	✓	X	✓	X
	Jump Up	X	✓	X	X
Trick Actions	Jump Forward	X	✓	X	X
	Backflip	X	✓	X	X
	Wave (Greeting)	X	✓	X	X
	Two-Legged Stand	X	✓	X	X



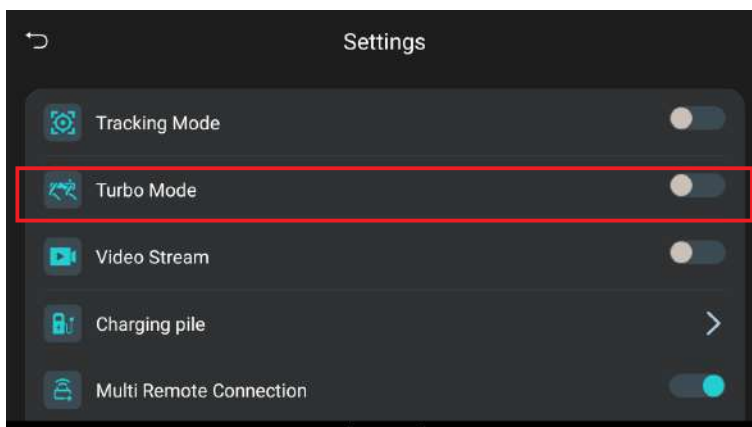
Warning: Stunt moves in Frenzy Mode may affect equipment lifespan. Performing stunt moves in Frenzy Mode will put a large load on the joint modules of the equipment. Prolonged operation may lead to accelerated wear of the joints, seriously affecting its lifespan. Please use caution and reasonably control the usage time to ensure long-term stability of the equipment.

Activate Turbo Mode

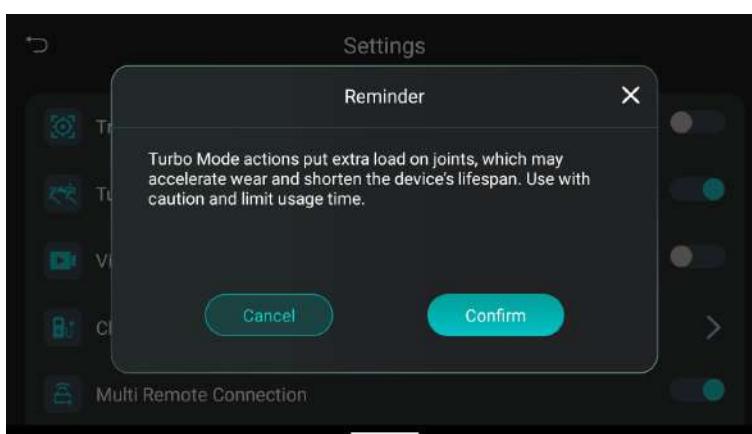
1. Click the settings button in the upper left corner.



2. Activate Turbo Mode.



3. Turbo Mode Activation Prompt. If you are sure, click OK to activate.



4. Turbo Mode Activated.



6.2.1.4 Function Description

1. Basic Controls

a. Click the control button in the lower right corner to enter the control page.



b. You can control the robot dog's movement and body shape changes by clicking the button in the middle of the screen, the virtual joystick, and the virtual buttons.



2. Screen Recording

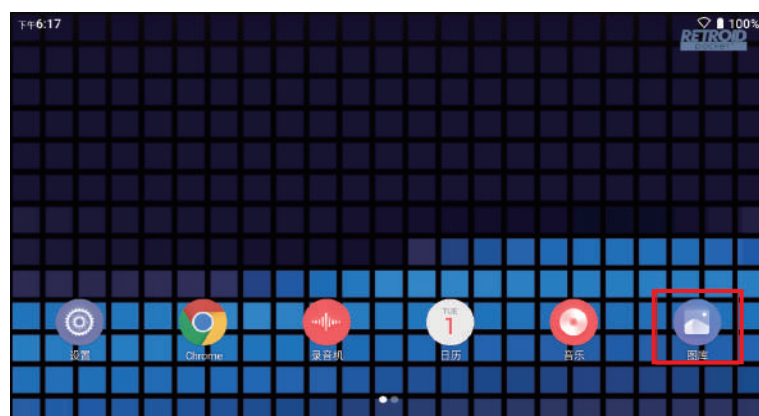
a. Click the screen recording button in the lower right corner of the screen to start screen recording.



b. Screen recording in progress. Click the red "End" button to stop screen recording.



c. The video can be viewed in the remote control's gallery.

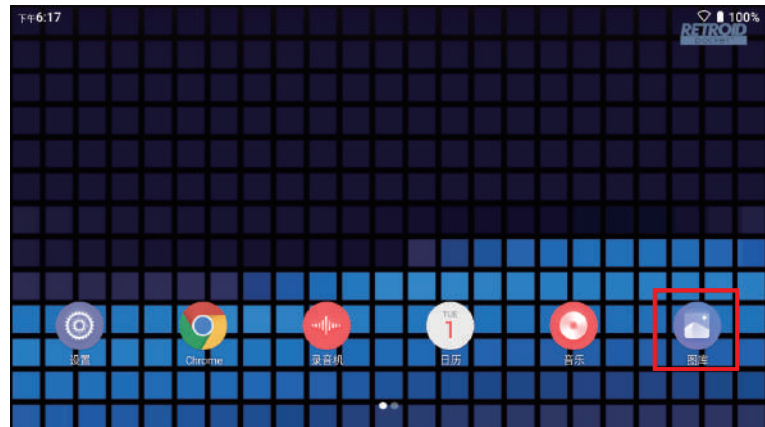


3. Screenshot

a. Click the screen recording button in the lower right corner of the screen to take a screenshot.



b. Screenshots can be viewed in the remote control's gallery.

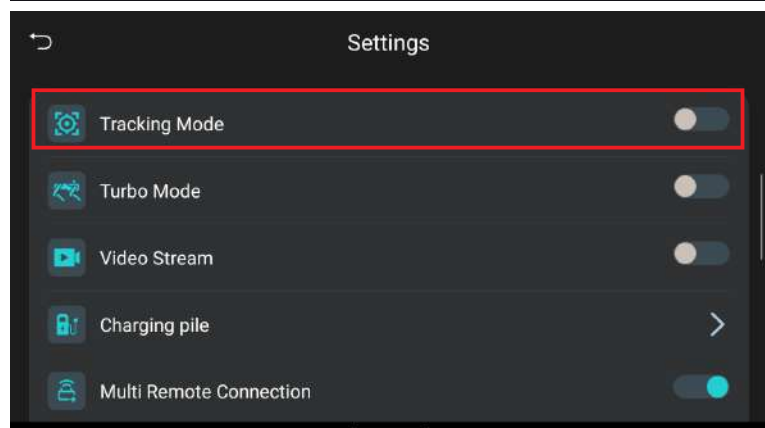


4. Tracking Function

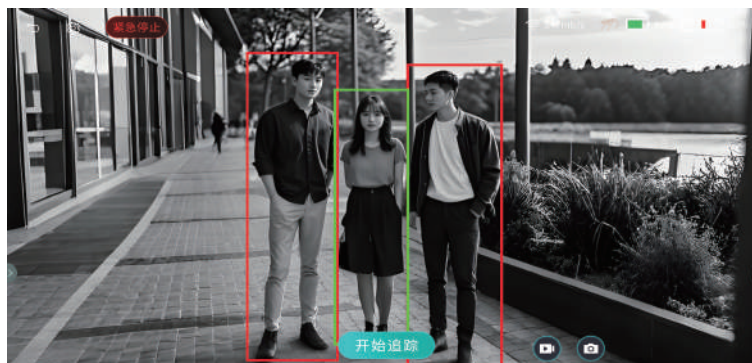
a. Click the settings in the upper left corner.



b. Select the tracking function.



c. The red box identifies all trackable targets. Click to select the target, then click ""Start Tracking"" to trigger the tracking function.
(The function will continuously track after being triggered. To avoid accidentally damaging the tracked target, please cancel it in time.



d. Click "Stop Tracking" to cancel the tracking function.

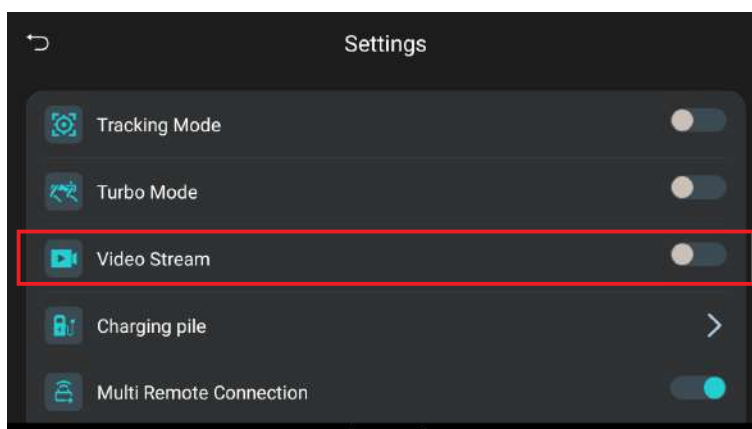


5. Video Stream Switch

a. Click the settings in the upper left corner.



b. Select the video stream switch. Save settings.



Classify	Specifications	L1	L1-W
Basic information	Material information	Aluminum alloy + high strength engineering plastics	Aluminum alloy + high strength engineering plastics
	Standing size (length x width x height)	About 630mm x 360mm x 415mm	About 630mm x 430mm x 485mm
	Floor size (length x width x height)	About 670mm x 425mm x 145mm	About 690mm x 540mm x 165mm
	Machine weight (including battery)	15kg	22kg
	Working temperature	0°C ~40°C	0°C ~40°C
	Levels of protection	IP54	IP54
	Charging time	1h	1h
	Duration of flight	1-2h	1-2h
	Endurance mileage	6km	9km
Performance parameter	Basic computing power	8 high-performance core CPU	8 high-performance core CPU
	Maximum power at work	3500W	3500W
	Maximum speed	3.7m/s	3.7m/s
	All-up-weight	About 8kg (limit ~ 10kg)	About 8kg (limit ~ 10kg)
	Climb stairs continuously	16cm	16cm
	Maximum climbing Angle	Standard environment 30° limit up to 40°	Standard environment 30° limit up to 40°
	The height at which the jump is made	35cm	/
Adjust all joint parameters	Type of actuator	High power density motion unit	High power density motion unit
	Maximum joint torque	48N · m	48N · m
	Aluminum alloy precision joint motor	12	12
	High performance wheel hub motor	/	4 of them
Adjust all joint parameters	Kinetic space of the joint (body)	-28°~28°	-28°~28°
	Joint movement space (thigh)	-170°~66°	-170°~66°
	Joint movement space (calf)	35°~156°	35°~156°
Sensor	Camera FOV	DFOV122°, HFOV111°, VFOV70°	DFOV122°, HFOV111°, VFOV70°
	IMU	Standard configuration	Standard configuration
Function list	Standard moves	Stand, lie down, dampen, pitch and roll high and low, horizontal turn	Stand, lie down, dampen, pitch and roll high and low, horizontal turn
	Hotdogging	Jump forward, jump up, stand on both legs backflip, say hello, etc	Jump forward, jump up, stand on both legs backflip, say hello, etc
	Real-time image transmission	Support	Support
	OTA upgrade	Support	Support
	Secondary development	Support	Support
	Function expansion interface	Ethernet port, USB interface, power supply interface, SBUS interface, UART interface	Ethernet port, USB interface, power supply interface, SBUS interface, UART interface
	Target tracking	Support	Support
	Cell	Nominal capacity 5Ah, rated capacity 4.6Ah, voltage 43.2V	Nominal capacity 5Ah, rated capacity 4.6Ah, voltage 43.2V
Fittings of a machine	Adapter	Standard configuration	Standard configuration
	Charging station	Standard configuration	Standard configuration
	Hold the remote control	Apolegamy	Apolegamy
	Remote control with screen	Apolegamy	Apolegamy
	EPP draw-bar box	Apolegamy	Apolegamy
	Navigation development suite	Optional (Jetsson Orin NX, 3D lidar depth camera, etc.)	Optional (Jetsson Orin NX, 3D lidar depth camera, etc.)
Other	Defects liability period	One year	One year

explanatory notes:

- (1) The charging time data is measured at the standard ambient temperature of 25°C;
- (2) The range data is measured at a speed of 1m/s and no load condition;
- (3) For details of the function expansion interface, see the expansion manual;
- (4) For detailed warranty terms, please refer to the product warranty manual;
- (5) The above parameters are laboratory test data, and the actual performance may vary due to the use environment, operation mode and other factors. Please take the actual as the standard.

08 Troubleshooting

Frequently asked questions	Treatment measure
What if the remote control can't connect to the robot dog?	First, confirm that the robot dog has been started, and then confirm that no other version of the APP is running in the background of the remote control. If you still cannot connect to the robot dog, restart the robot dog and the APP and try to connect again.
What if the handle operation of the connected robot dog has no response?	Make sure the handle is connected to the correct robot WiFi. If it is connected but still cannot control, wait 10 seconds and try again. If there is no response, restart the robot.
Is it normal for a robot dog to stop moving on its own?	It may be that the robot dog's protection function is triggered. Please wait for 10 minutes and try again. If you still cannot control the robot dog to continue moving, please check whether the battery is sufficient first, and then check whether the handle signal is disconnected.

09 Transportation and storage

9.1 Product Transportation

See the table below for packaging box dimensions. Before shipping with the box, please remove the battery from the robot dog. During transportation, please ensure that the front of the shipping box is facing upwards.

Model name	L1	L1-W
Packaging Box	640*460*415mm	640*530*415mm
Dimensions	21KG	28KG

9.2 Storage environment

When storing the power adapter and the entire unit, place them in a dry and cool environment to avoid direct sunlight, fire sources, and strong electromagnetic fields. The recommended storage temperature is between 20°C and 25°C. Do not store the product in environments exceeding 60°C or below -10°C. For long-term storage, it is advisable to maintain the temperature between 20°C and 25°C, with relative humidity at 0% to 60% RH, and keep the total battery charge below 50%.

9.3 Battery precautions

Long idle time may affect battery performance, avoid deep discharge to maintain battery state. The battery will stop charging automatically when it is fully charged, but it is recommended to disconnect the connection to maintain the battery state.

Please check the battery charge regularly and charge and discharge every 3 months to maintain battery activity.

If the charge is less than 20%, it should be charged to 40%-60% for storage in time to avoid battery damage.

9.4 handle gently

After starting up, please avoid lifting or carrying this product. Please be sure to turn off the machine before carrying it.

Please handle the parts gently to avoid mechanical impact and damage.

10 Description of hazardous substances

Component name	Hazardous material					
	Lead (Pb)	mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr (VI))	Polychlorinated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Circuit board	×	○	○	○	○	○
Plate metals	○	○	○	○	○	○
Monoblock	○	○	○	○	○	○
Cell	×	○	○	○	○	○
Other accessories	○	○	○	○	○	○

This form is prepared in accordance with SJ/T 11364.

○ Indicates that the content of the harmful substance in all homogeneous materials of the component is below the limit requirement specified in GB/T 26572.

×

Indicates that the content of the harmful substance in at least one homogeneous material of the component exceeds the limit requirements specified in GB/T 26572.



10 Description of hazardous substances

This product contains rechargeable lithium battery pack, which is harmful to the environment when scrapped. Please remove the battery from the main unit and dispose it reasonably according to the following instructions before being discarded:

- Before removing the battery, disconnect the power and use as much power as possible.
- Please do not damage the battery case to avoid danger.
- Please hand over the removed batteries to a professional recycling agency.

11 Warranty statement

11.1 Warranty policy

11.1.1 Warranty period

Main unit		Bionic quadruped robot	Starting time
Whole machine warranty	One year		The calculation starts after the product is activated(or 90 days after receipt if not activated)
Defects liability period	Motherboard	12 months	
	Joint module motor	12 months	
	Telecontroller	12 months (gamepad remote control) 6 months (screen remote control)	
	Charger	Six months	
	Cell	6 months / 200 cycles	
	FPV camera	Six months	

* Battery warranty time is a conditional first-to-arrive mode, that is, the warranty period or the maximum number of cycles will be the end of the warranty

* The remote control has a handle remote control and a screen remote control, the warranty time is different,the handle remote control is 12 months, the screen remote control is 6 months

11.1.2 Non-insurance clause

1. Damage to the robot caused by user's secondary development (including but not limited to: damage caused by high-speed movement of the equipment, damage caused by falling of the equipment, damage caused by changes in the limb parameters of the equipment, etc.);
2. Damage caused by hardware modification;
3. Unauthorized shell opening;
4. Damage caused by force majeure or extreme environment (including but not limited to strong magnetic field / high temperature / low temperature / natural disaster);
5. Appearance damage, structural parts damage and internal circuit damage caused by improper use;
6. Damage caused by collision and fall;
7. Damage caused by liquid and foreign matter entering the machine dog;
8. Data security accidents;
9. The product is used for illegal purposes (including but not limited to war activities, terrorism), violates Chinese mainland laws and regulations, violates the laws and regulations of the country or region where it is used, violates international conventions, etc., any problems arising therefrom are not covered by the warranty;
10. Improper use in the Frenzy mode will result in the loss of warranty for the device (including but not limited to: impact damage caused by high speed movement of the device, fall damage caused by special actions of the device, etc.).

11.2 Guaranteed services

11.2.1 Remote technical support

1. Support requirements: equipment serial number, fault description and on-site image data;
2. After receiving the request, the technical support will be diagnosed by the front-line engineer and give the diagnosis result and maintenance plan.

11.2.2 Maintenance support

1. Repair: For the faulty equipment, you can apply to send it back to the designated maintenance center of our company. If the product quality is detected, the relevant labor costs and spare parts costs will be exempted. If the product is not guaranteed, the corresponding labor costs, spare parts costs, logistics costs and other costs will be charged;
2. Maintenance period: 7 working days after receiving the equipment for repair (additional communication is required in special cases);
3. Logistics: Whether or not it is insured, the round-trip logistics costs shall be borne by you. The choice of logistics shall be designated by our company. In case of special circumstances, we can communicate with you.

11.3 limitation of liability

11.3.1 exception clause

1. The Company shall not bear any third party claims arising from the use of the products in any form;
2. The Company shall not be liable for data storage, loss or leakage (customers need to back up by themselves).

12.1 Certification Instructions

L1

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

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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

L1-W

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

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. 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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

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.

SAR tests are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new device is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC, Tests for each device are performed in positions and locations as required by the FCC.

Non-compliance with the above restrictions may result in violation of RF exposure guidelines.

*Explanation of icon

icon	Explanation	icon	Explanation
	Moving parts, keep body parts away from moving parts.		Warning Electricity
	"WARNING Hot Surface"		Direct current
	Watch out for pinched fingers		Alternating current
	WARNING For indoor use only (for the charger).		Beware of scalding
	"Danger!Read user manual before use.		

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UK	REP	EUREP UK LTD Unit 220 Wharfedale Road, Winnersh, Wokingham, England, RG41 5TP uk@eurep-gmbh.com

