

DEEPRobotics



DR-02

User Manual V0.1.3-0(2026.05.08)

Statement

- This manual is the information asset owned by Hangzhou Yunshenchu Technology Co.,Ltd. (hereafter referred to as DEEP Robotics) and any reproduction of part or all of this manual is strictly prohibited without the permission of DEEP Robotics.
- This manual explains the basic components, transportation and storage, specific operations, exception handling, and technical specifications of "DR02". Be sure to read and understand this manual carefully before operating the robot.
- The product model approval code has been integrated into the product nameplate (label) located on the abdomen of the robot body. Please check it on the robot body.
- Basic information on safe use is described in detail in the "Reading Tips", so be sure to read this part thoroughly to ensure proper use.
- The diagrams and photographs in this manual are representative examples and may differ in details from the product purchased.
- This manual may be modified as appropriate for product improvements, specification changes, etc.
- The contents of this manual do not exclude the possibility of misremembering or omission. If this manual is damaged or lost or if you have questions about the contents of this manual, please contact us promptly.
- Failure caused by unauthorized disassembly or modification of the product by the customer is not covered by our warranty, see "Service & Warranty" for details.

Reading Tips

Description of Symbol

Before use (installation, transportation, maintenance, inspection), please be sure to read and master this manual, and familiarize yourself with the equipment and safety matters before you start using it. The safety matters in this manual are divided into three kinds: "Caution", "Mandatory" and "Prohibition". Even the contents of "Caution" may have serious consequences depending on the situation, so any of these safety matters are extremely important and should be strictly observed.



Caution

Usage tips or operational recommendations. Improper using or operating the robot may cause damage to it.



Mandatory

Matters that must be observed.



Prohibition

Matters prohibited. Misoperation is dangerous and may cause injury to operators or damage to the robot.

Get Help

For more resources to assist you in using DR02 proficiently, you can also visit DEEP Robotics' corporate website: <http://www.deeprobotics.cn>.

Important Safety Tips



Before starting the robot, please ensure that all people and objects present are more than 2 meters away from the robot to avoid collisions.



- When the robot passes through stairs or slopes, do not stand on the stairs, platforms, or slopes below the robot to avoid personal injury when it falls.
- When the robot's legs are swaying, shaking violently or other abnormal phenomena occur in use, press the **[STOP]** button on the controller to activate the soft emergency stop protection, so that the moving robot enters a protective state.

Content

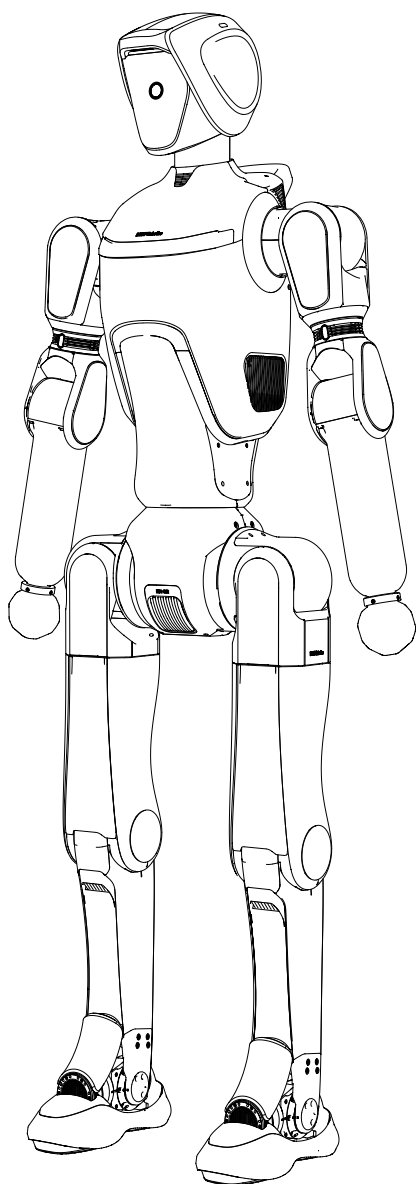
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1 Introduction

1.1 Overview

DR02 is a full-size humanoid robot with 4 motors on each arm and 6 motors on each leg, and 1 motor on the waist, totaling 21 degrees of freedom. It supports multiple movement modes and various actions. The robot's head is equipped with 1 wide-angle camera, and is internally equipped with 1 industrial-grade high-performance host for motion control.

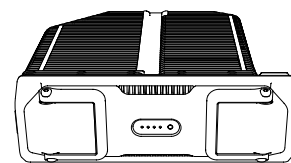
1.2 Product List



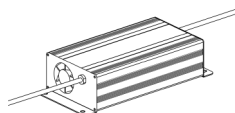
Full-size humanoid robot ×1
(without battery)



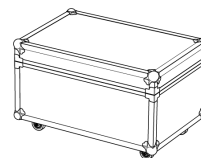
Controller ×1



Replaceable Battery ×1



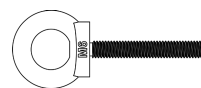
Charger ×1



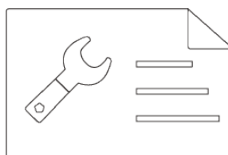
Transport Case ×1



Certificate ×1



Lifting Ring ×3

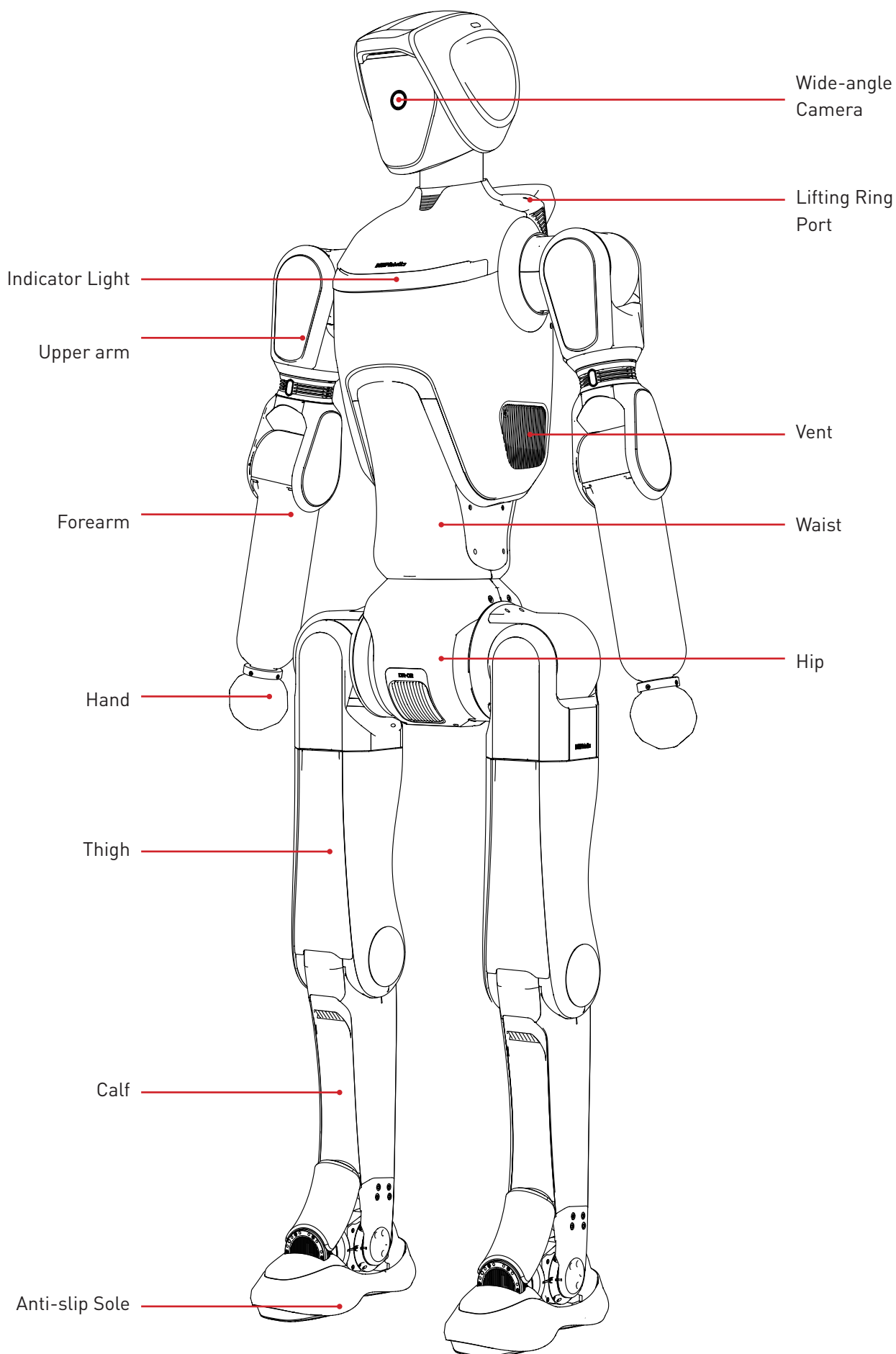


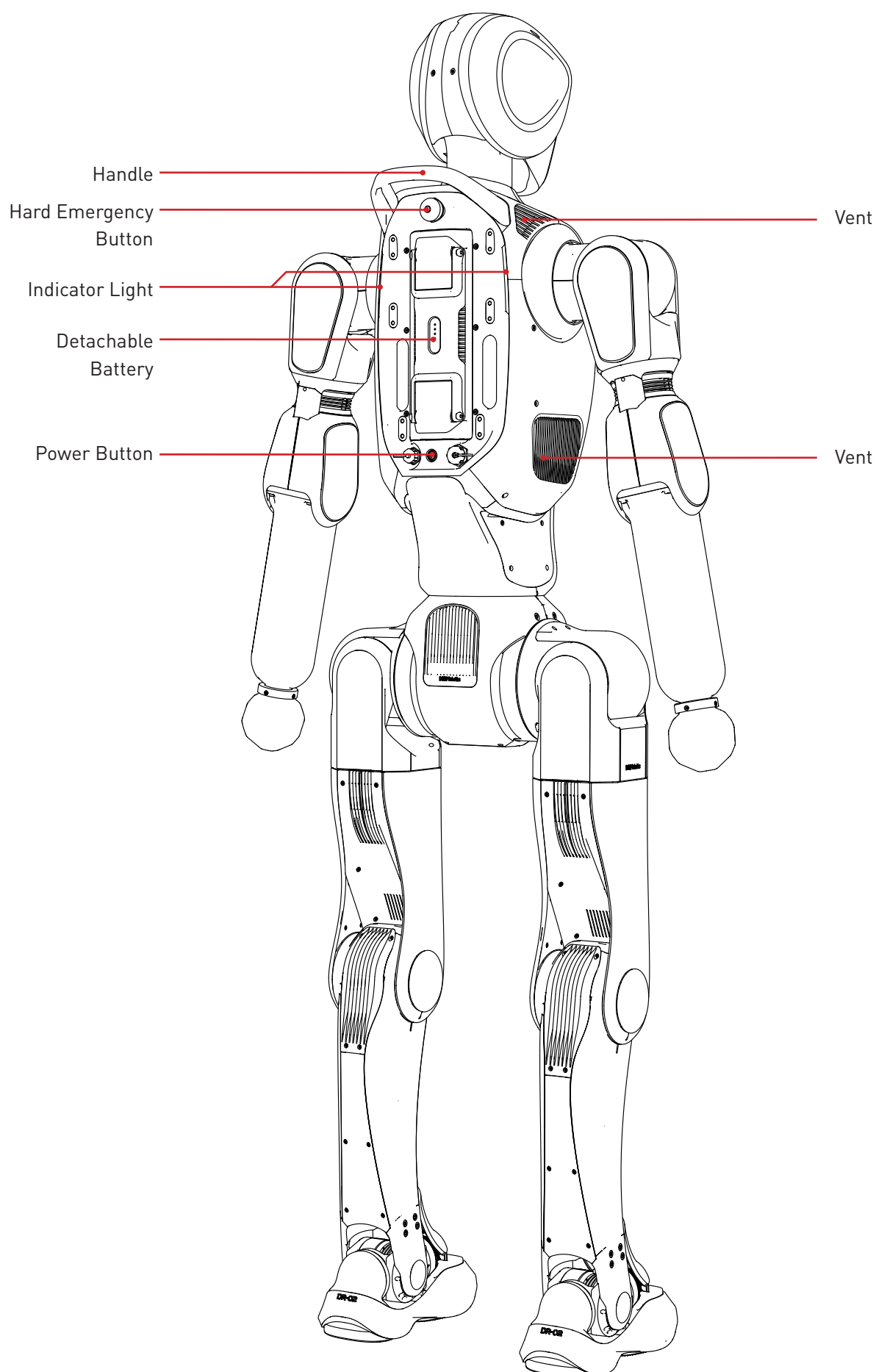
Warranty Card ×1



User Manual ×1

1.3 Product Parts





※ The DR02 adopts a left-right symmetrical design. The figure labels components on one side only; the opposite side is symmetrically equivalent.

1.4 Main Specifications

Robot Dimensions	
Standing Height	180cm
Total DOF	21 (excluding arm end effectors)
Single Arm DOF	4
Waist DOF	1
Single Leg DOF	6
Joint Encoder	Dual encoder
Total Mass	68kg

Electric Parameters	
Battery Capacity	20Ah (Ideal data in an environment at 25°C)
Nominal Battery Voltage	72V
Charger Input Voltage	200V~240V
Charger Output	84V/4A
Charging Time	2.5~3h
Power Supply	72V
Communication Interface	Ethernet; WiFi

Motion Parameters	
Maximum Speed	4m/s (Data from extreme test, which is not disclosed for safety reasons)
Maximum Working Speed	1.5m/s
Maximum Slope	±20° (Varies depending on flooring material)
Maximum Continuous Stair Height	25cm

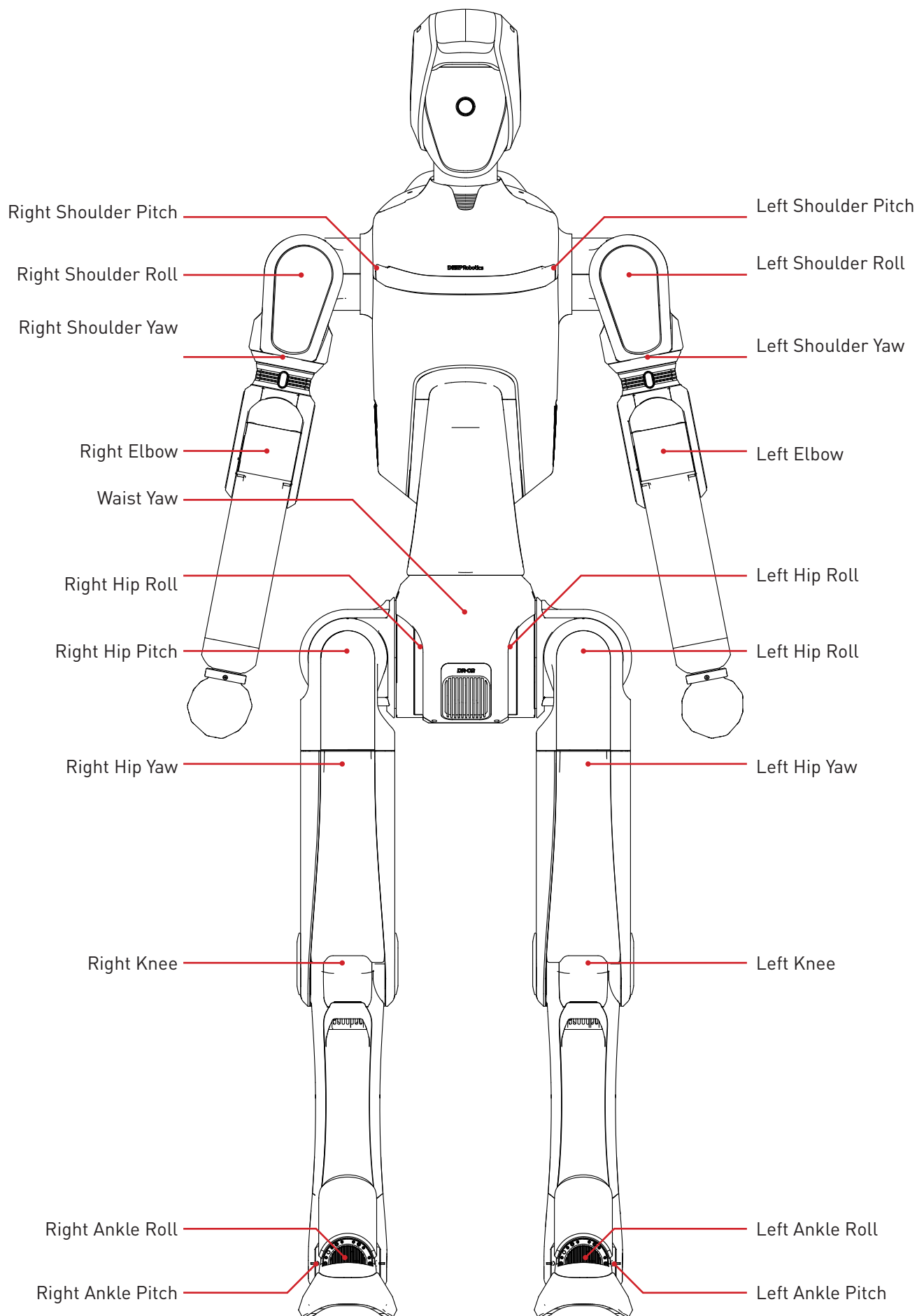
Motion Parameters	
No-load Runtime	2h
Payload	20kg

Intelligent Perception and Interaction System	
Wide-Angle Camera	× 1
Microphone Array	× 1
Speaker	× 1
Indicator Light Strip	× 15

Environmental Parameters	
Ingress Protection	IP66(with battery)
Operating Temperature Range	-20°C ~55°C

※ Data above are measured under ideal conditions, the actual results may be biased.

1.5 Joint Distribution Description



2 Functions and Status

2.1 Modes, States, and Gaits

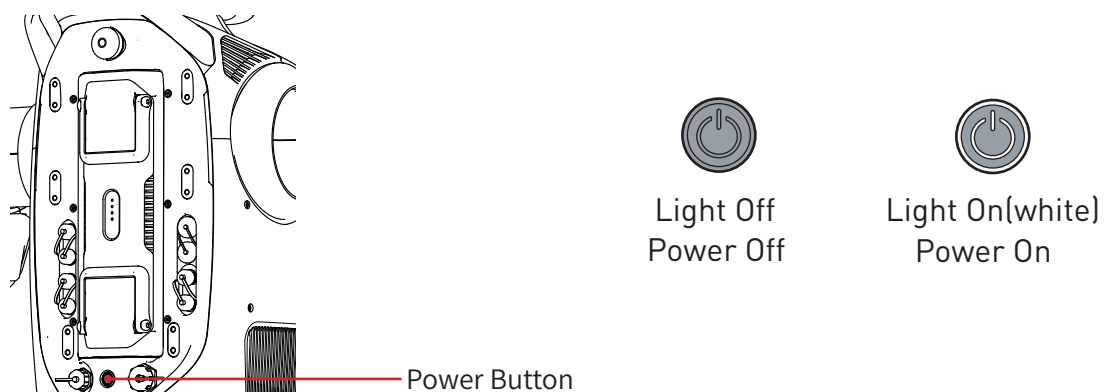
Usage Mode	
Regular	Robot is completely controlled by the user through the controller

Robot States	
Idle	All motors stop active motion; the limbs swing freely without damping.
Damping	All motors stop active motion; the limbs exhibit significant damping when swung.
Stand	The robot slowly assumes an unbalanced standing posture; from this state it can transition to the locomotion state.
RL Control	The robot can be controlled via the remote controller to move.

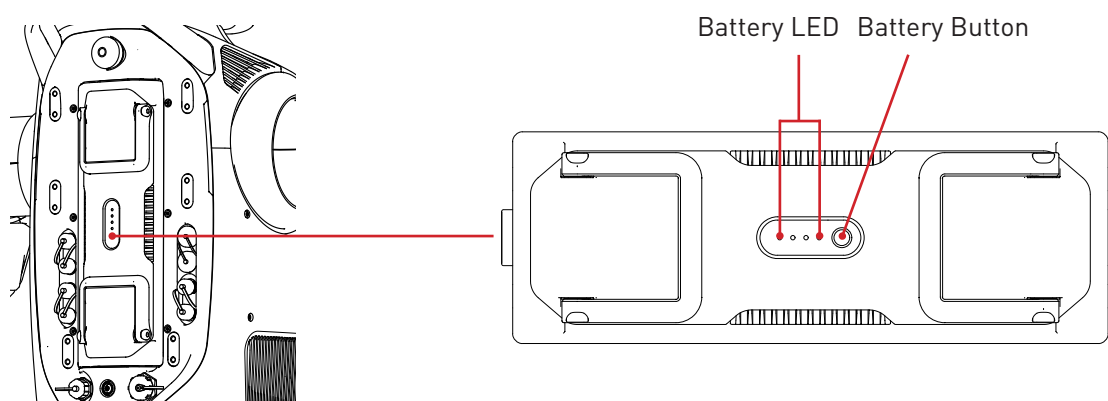
Gait	
Basic	Suitable for conventional structured terrain
Terrain	For climbing stairs and slopes.

2.2 Description of Lighting

2.2.1 Power



2.2.2 Battery



○ OFF ● ON ⦿ FLASHING ⦿ MOVING			
Status		Meaning	
● ● ● ●	Four lights on	Power>75%	
● ● ● ○	Three lights on	50%<Power<75%	
● ● ○ ○	Two lights on	25%<Power<50%	
● ○ ○ ○	One light on	10%<Power<25%	
⦿ ○ ○ ○	One light flashing slowly	3%<Power<10%	
⦿ ○ ○ ○	First light flashes for 30s then off	Power<3%	
⦿ ⦿ ⦿ ⦿	Moving light,light on in turn	Charging,lights show % charge	

2.2.3 Indicator light

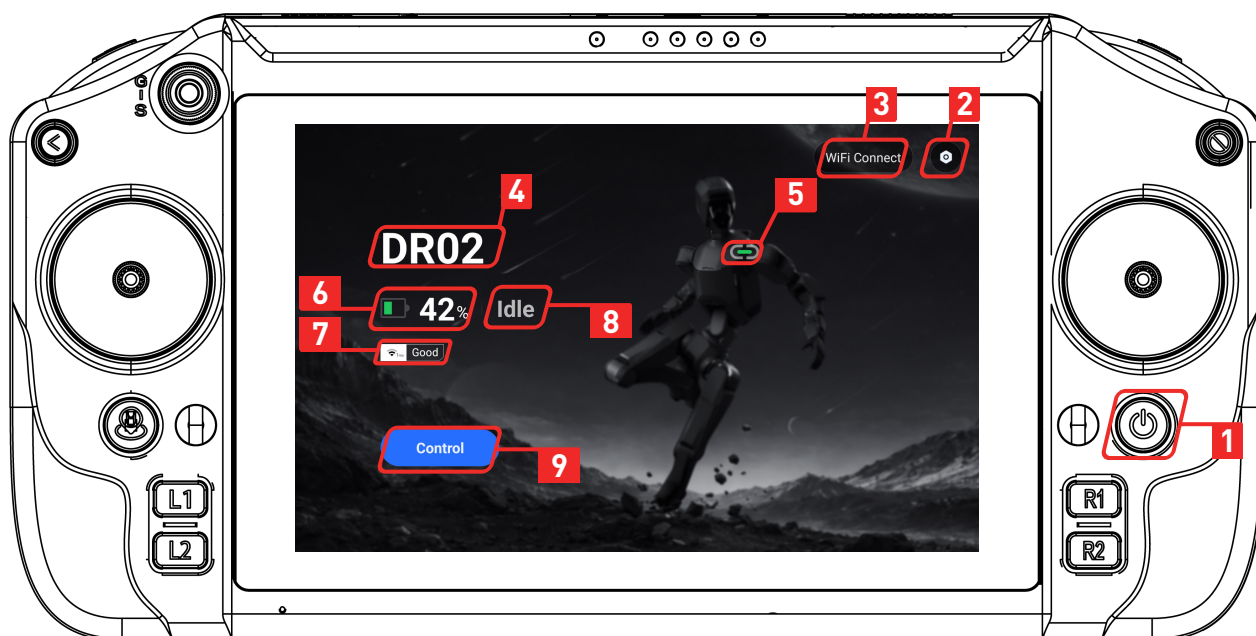
The robot body has one light strip on the front, two on the rear, and two on the anterior head region. All indicator lights share the same signal language. The light language of the indicator light is shown below:

Light Status	Robot Status and Meaning
White Flashing	Awaiting connection / connecting
White Lights On	Connection established; robot ready for motion
Yellow Lights On	The robot is in hard emergency stop protection state
	Continuous abnormal warning, you can view the specific abnormal warning information on the controller
Red Lights On	Continuous abnormal protection, you can view the specific abnormal protection information on the controller

2.3 APP Introduction

2.3.1 Home Interface

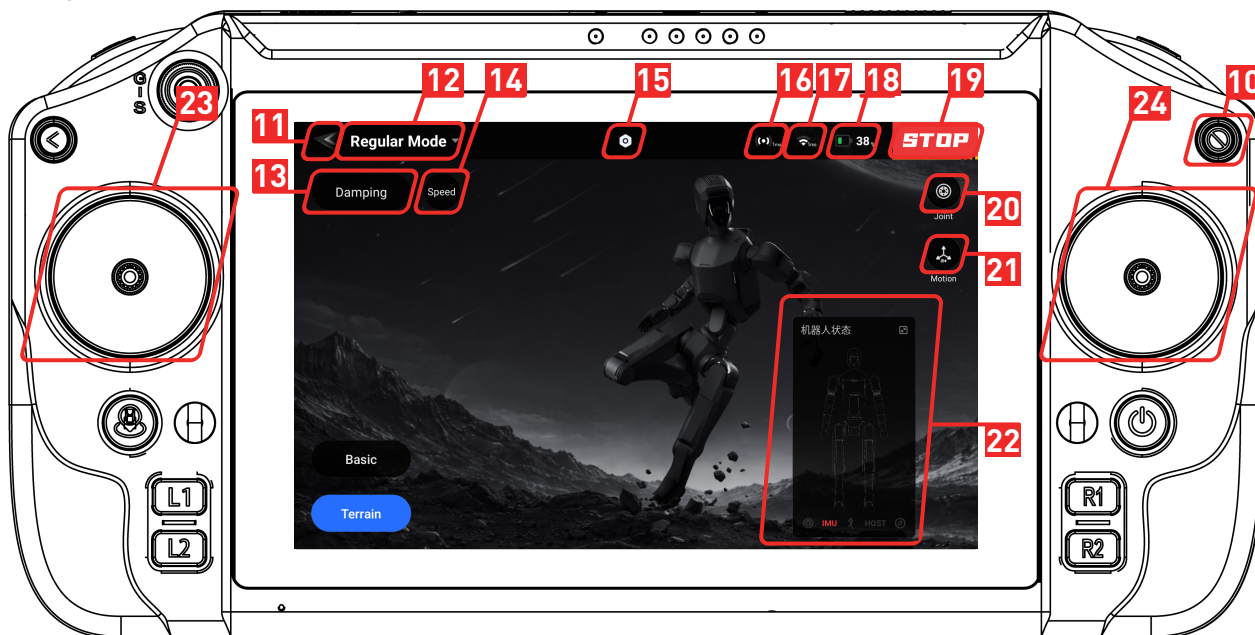
After starting the APP, you will automatically enter the home interface, as shown in the figure below:



Button	
① Controller Power	Press and hold to power on/off, and press once to wake/lock screen
② Settings	Settings:About Device/Sensor/Status/Accessibility & Convenience
③ Wi-Fi Connection	Connect to the robot's Wi-Fi
④ Product Model and SN	Displays the currently connected robot model and serial number
⑤ Connection Status	Displays the robot's connection status: Green: connected; Red: disconnected
⑥ Battery Status	Displays the remaining battery level of the connected robot
⑦ Connection Method and Signal	Displays the connection method, latency, and signal quality of the connected robot: (••) for pairing connection 📶 for Wi-Fi connection
⑧ Robot Status	The current overall motion state of the robot
⑨ Control	Tap to enter the robot control interface

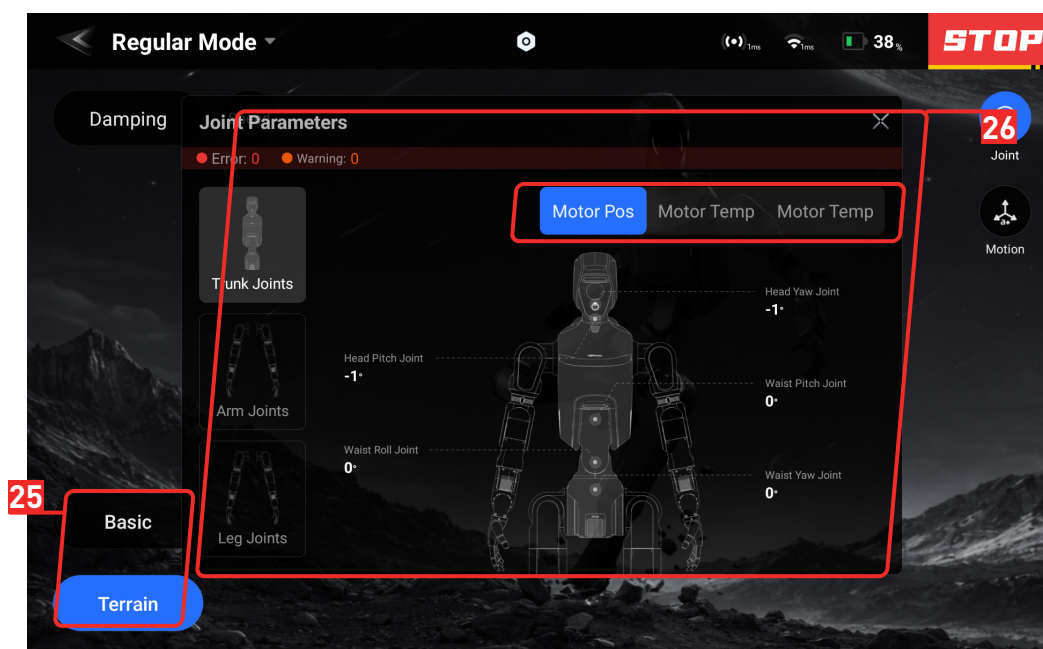
2.3.2 Controller Interface

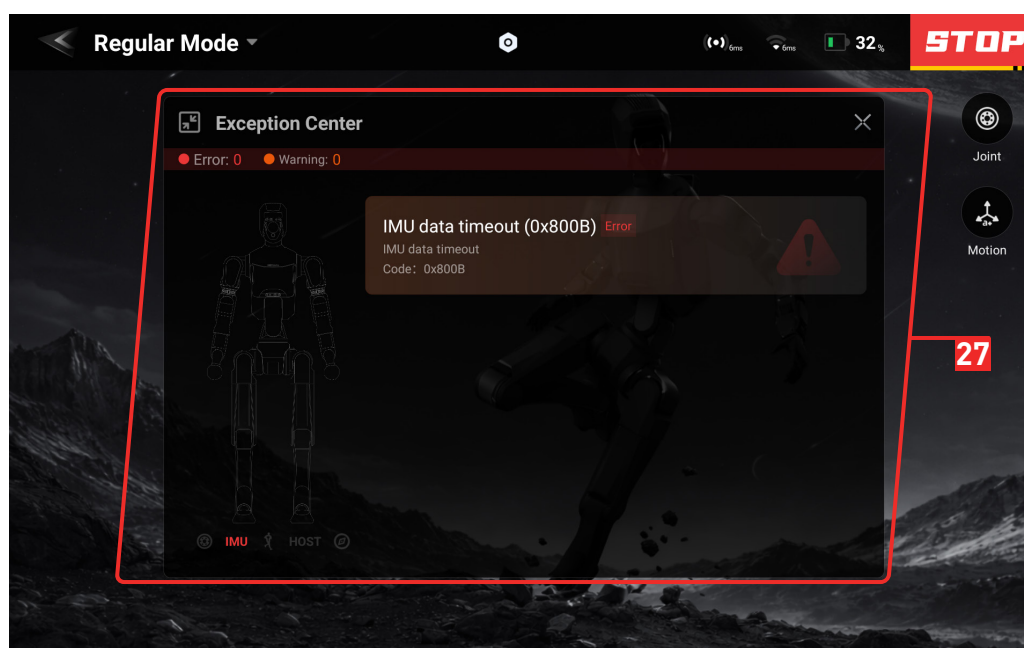
Tap the [⑨ Control] button on the home interface to enter the control page, as shown in the figure below:



Button	
⑩ STOP	Soft Emergency Stop, refer to 3.5.1
⑪ Back	Returns to the APP home interface
⑫ Usage Mode	Tap to switch the robot's usage mode.
⑬ State Toggle	The indicator light on/off indicates video transmission on/off. When the dashboard is expanded, the left/right indicator light on indicates the front/rear video transmission is on
⑭ Speed Adjustment	Tap the gear icon to enable speed adjustment; slide the slider to set the maximum speed
⑮ Settings	Settings:About Device/Sensor/Status/Accessibility & Convenience
⑯ Robot Signal	Displayed only when the controller is connected to the robot. Shows connection signal strength and latency
⑰ WiFi Connection Signal	Displayed only when the controller is connected to the robot's WiFi. Shows WiFi signal strength and latency
⑱ Battery Info	Shows battery remaining percentage. Tap to view battery voltage and temperature
⑲ Stop	After tapping, the robot stops its current motion and remains stationary
⑳ Joint Parameters	After tapping, the switch will be highlighted in blue, and the joint parameters panel will be displayed

Button	
②① Motion Parameters	After tapping, the switch will be highlighted in blue, and the motion parameters panel will be displayed
②② Status Dashboard	When a robot anomaly occurs, the status dashboard appears. Tap the expand button on the right to view the anomaly center. The dashboard collapses once the anomaly is cleared. Red/orange/yellow indicators denote three levels of anomalies: Protection / Warning / Alert. Each indicator color corresponds to a specific anomaly as follows:  -Joint, IMU -IMU,  -Motion posture, HOST -Robot main unit,  -Navigation anomaly
②③ Left Joystick	Controls the robot's translation direction
②④ Right Joystick	Left/right controls the robot's rotation

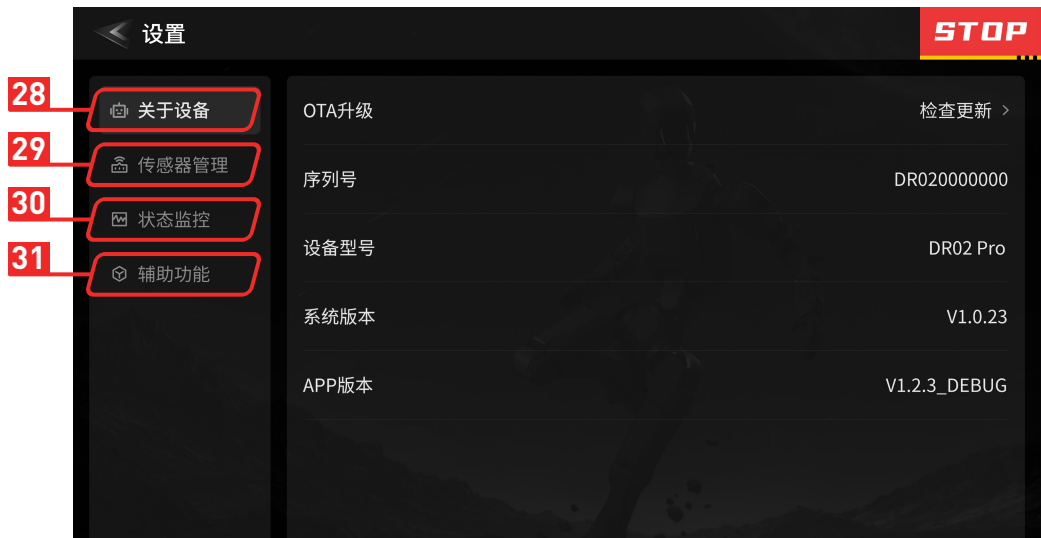




Button	
②⑤ Gait	Tap the gait name to switch to the corresponding gait. The gait displayed with a blue fill is the current gait.
②⑥ Joint Parameters Panel	Displays joint angle, driver temperature, and motor temperature. Tap on the left side to switch joint positions; tap on the upper right corner to toggle between joint angle, motor temperature, and driver temperature.
②⑦ Anomaly Center Panel	Displays currently triggered anomalies of the robot. After tapping the list on the right, the dashboard on the left shows the location of the anomaly.

2.3.3 Setting Operation

Press the [② Settings] button on the Home page or the [⑮ Settings] button on the Control page to enter the settings interface, as shown in the figure below:



Button	
⑮ About Device	View: Serial Number/Model/System Version/APP Version, and perform OTA
⑲ Sensor	Can enable or disable: Wide Angle Cameras/Microphone/Speaker
⑳ Status	View: Motion/Posture/CPU/Battery status
㉑ Accessibility	Set: WiFi / Joint Calibration / Language

3 Operation

3.1 Preparation

3.1.1 Environment



- Please ensure that operators and non-operators present have read the manual carefully and understand the basic operating instructions and safety precautions.
- Before start the robot, ensure that all people or objects present are more than 2 meters away from the robot to avoid collisions.
- Please use the robot in an environment of -20°C ~55°C.

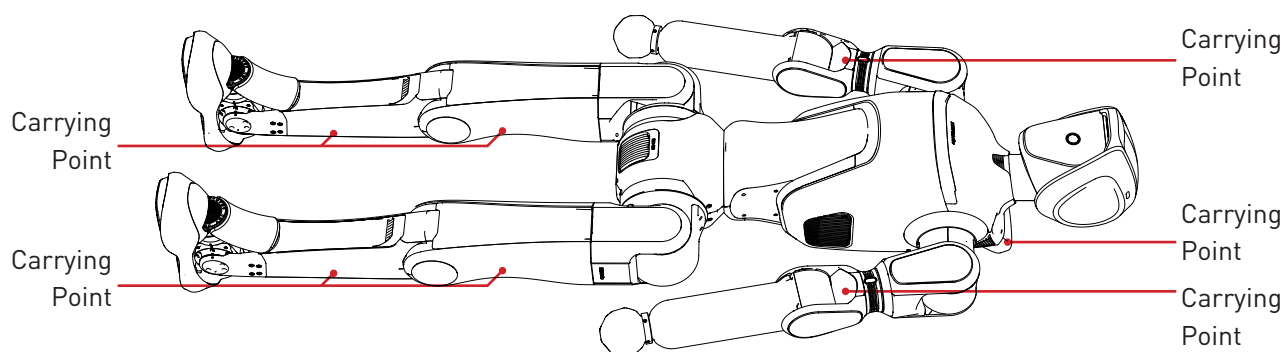
3.1.2 Handling Tips

Unboxing

1. Place the transportation case on a level surface (top cover facing upward). Open the upper case and left/right side doors, remove the padding, and temporarily position the robot arms on the outer side of the inclined side panels.
2. Install one lifting ring in the left lifting ring mounting hole and one in the right lifting ring mounting hole on the robot shoulders, and tighten them to the same height. Then connect the lifting rings to the suspension transfer machine using lifting ropes. After confirming the connection is secure, slowly lift the robot. While lifting, slowly move the suspension transfer machine outward, and simultaneously assist in lifting the arms to prevent the robot's hand and wrist joints from striking the transport case or other parts of the robot body. Once the robot's feet are completely off the ground and the robot is fully suspended, move the suspension transfer machine to take the robot out of the transport case.

Carrying

The DR02 has a mass of approximately 68 kg. A four-person transport is recommended: with the robot in a supine position, first adjust the joints to the posture illustrated in the manual. Two persons stand on the outer thigh sides and grasp the lower legs; the other two stand on the torso sides and grasp the inner upper arms and dorsal handle. All four persons coordinate to lift and transport the robot.



- Power off DR02 and carry it gently.
- The metal components of the robot's legs that have just finished running are hot, so please wait until it cools down to suitable temperature before carrying.
- Keep your hands away from easy pinch points and the range of motion of joints prevent pinching or scratching.

3.1.3 Checking



- Press the power button once to check the battery.
- Make sure the controller is fully charged.
- Make sure there is no visible damage to the exterior of the robot.
- Make sure the robot joints can rotate normally.
- Make sure the emergency stop button can be triggered.



If the robot parts are aging or damaged, please do not start the robot and contact the after-sales staff in time.

3.2 Charging

User can insert the battery into the charger for charging.

1.First, place the robot in a hanging or lying-down state. When lying down, lift the handle on the robot's back from the rear side appropriately to put the robot into a sitting position (with the robot's thighs touching the ground); when hanging, proceed directly to the next step.

2.Lift the fixed locking latches on both sides of the battery to unlock the battery buckle, then pull the battery outward with appropriate force to remove it from the battery compartment.

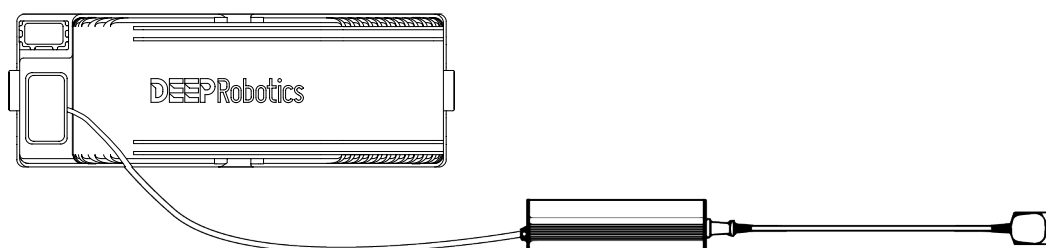


- It is recommended charge in an environment of 0°C ~40°C.
- During charging, please always pay attention to the battery and charging hub to prevent accidents, and disconnect the charging power in time after charging is completed.

3. Connect the battery to the charger, then plug the charger into the mains (200V–240V).

4. During charging, the indicator light on the charger is red, and the battery indicator lights illuminate in a running light pattern. The number of lights lit corresponds to the charged capacity.

5. When charging is complete, the indicator light on the charger turns green, and the four LED indicators on the battery turn off.



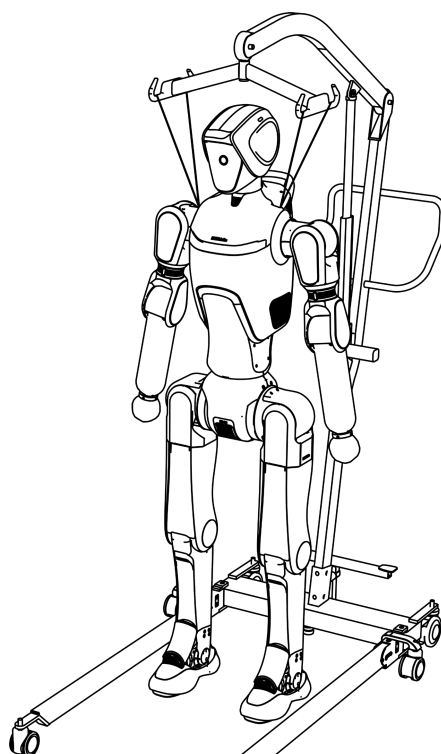
3.3 Start

3.3.1 Preparation

1. First, take the robot from the transport case and make it in a hanging state, as described in the section "3.1.2 Handling Tips".

2. When inserting the battery, place it forward into the battery slot (with the battery switch below the indicator light). Then lift the fixed locking latches on both sides of the battery to unlock the battery buckle. Subsequently, push the battery into the battery compartment with appropriate force. After pushing it in, press down the fixed locking latches on both sides to fully engage the battery buckles into the compartment, securing the battery firmly to the robot body.

3. Hoist the robot and adjust it to the power-on posture: Face forward, arms straight and naturally hanging down; waist rotated forward and backward and naturally hanging; legs straight and naturally hanging down. Adjust the ankle joints so that the soles of the feet are parallel to the ground (as shown in the right figure).



3.3.2 Power on

Before power on the robot, please confirm that the hard emergency STOP button has not been triggered. If the hard emergency STOP button is triggered, troubleshoot the robot first. After ensuring that the machine can be operated normally, rotate the button in the direction indicated by the arrow on the button to release the hard emergency stop.

With the hard emergency STOP button not triggered, press the battery button for 1 second. The battery indicator light stays on, showing the current battery level. Then press and hold the battery button until the battery LED lights up in a filling running pattern and stays on, indicating that the battery is powered, and the battery LED light shows the current battery level. Press the power button on the rear side of the robot to start the robot. At this time, the power switch always lights up white.

3.3.3 Connection

Press and hold the power button to turn on the controller (please ensure that the controller has enough power before use). The robot and controller have been paired and bound. After opening the "DEEP Robotics" app, the controller will automatically connect to the robot it is bound to.



3.4 Operation

1. After the robot is powered on and successfully connected to the controller, tap the [Control] button on the controller screen to enter the robot control page.
2. Then tap the [Stand] button on the controller screen. After confirming that the robot is in a suspended state, tap the [Confirm] button on the screen to make the robot stand up. Then slowly lower the suspended robot until both feet are fully in contact with the ground.
3. Next, tap the [Start Motion] button on the controller screen. After confirming that the robot stands still stably, tap the [Confirm] button on the screen. The robot then enters motion mode and can be controlled to move and rotate using the joysticks: the left joystick controls forward/backward and left/right translation; the right joystick controls rotation.
4. Once the robot moves stably, release the protective hook and use the controller to operate the robot normally.

3.5 Emergency Operation

3.5.1 Soft Emergency Stop

If the robot's limb flailing, severe shaking, and difficulty maintaining balance and other abnormal phenomena occur during use, and when no operation prompt is displayed on the controller, please start the soft emergency stop function on the controller to make the robot enter damping protection state. After troubleshooting, hoist the robot and make it enter motion state again to operate the robot normally.

3.5.2 Hard Emergency Stop

Hard emergency stop button disables the joints power. Press the hard emergency stop button at the back rear of the robot, and the power button indicator light is off to indicate that the hard emergency stop has been triggered, which can avoid the robot from getting out of control. After troubleshooting the problem, if you need to release the hard emergency stop, please rotate the hard emergency stop button in the direction of the arrow on the button to release the hard emergency stop. If the hard emergency stop button pops up, it means that the hard emergency stop has been released. After the hard emergency stop is released, please restart the robot before use.



Once the hard emergency stop is triggered, it will cause the robot to lose all kinetic energy and thus fall to the ground. There is a risk of damaging the ground or the robot, so it is strictly forbidden to press the hard stop emergency button during normal movement!

3.5.3 Overtemperature

The system comes with temperature sensing. Tap the [②⑥ Joint Parameters] button on the screen to view the temperature information of the joint modules. Yellow numbers indicate high temperature of the joint, orange indicates excessive temperature, and red indicates overheating. Once the robot operates at high intensity causing the motor and driver to enter an overheat warning state, the robot will restrict user operations. Follow the operation prompts on the controller to stop the robot and allow it to enter a state conducive to cooling. Once the robot runs for a long time and causes the motor, driver, battery or CPU to overheat, it will automatically enter the overheat protection state, and the robot will automatically stop moving and lie down on the spot. Wait for the robot to cool down and exit the overheat protection state before continuing to operate the robot.

3.5.4 Low Battery

The controller features a battery level display, located at the lower left corner of the main interface of the control APP. When the robot's battery is below 20%, it will enter a low battery warning state, at which point the robot should be powered off and the battery removed for charging or replace the battery. When the battery level drops below 10%, the robot will trigger a low battery alert state, which will restrict user operations, at which point the robot should be immediately powered off and the battery removed for charging or replacement. When the battery level drops below 5%, the robot will no longer respond to any remote commands except the soft emergency stop from the controller; immediately hoist the robot to prevent damage caused by power-off fall. After hoisting, power off the robot and remove the battery for charging.

3.5.5 Other Circumstances

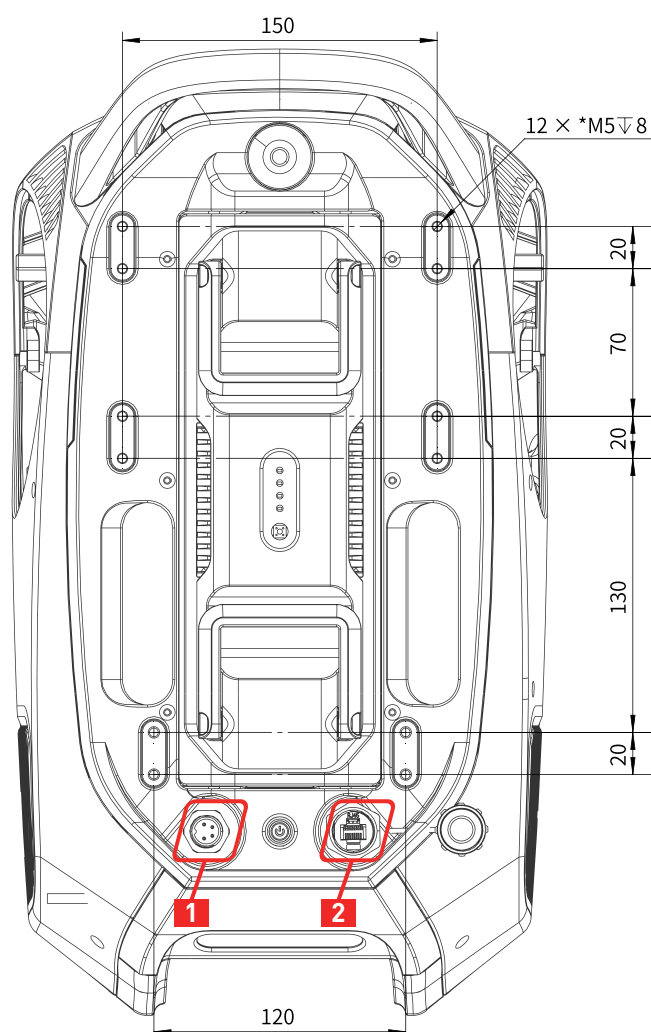
- If the joints are still swinging after the robot falls down suddenly, wait 30 seconds after the robot joints have completely stopped moving before pressing the hard emergency stop button at the rear of the body.
- In case of a fire, do not use water to extinguish it. Please use foam fire extinguisher, dry powder fire extinguisher or carbon dioxide fire extinguisher nearby.
- If the soft emergency stop fails, robot smokes or is submerged in water, or other unexpected situations, please immediately power off the robot and wait until it's safe to identify the problem. Then please contact DEEP Robotics, and we will help to troubleshoot the problem and repair or change your robot. Pay attention to safety in use!
- If the robot falls, do not drag, push or flip it before triggering the hard emergency stop.

3.6 Power Off

1. Before shutting down, stop all operation tasks of the robot and control the robot to stand still steadily (with no joystick commands from the controller, the robot remains stationary).
2. Then use a hoist to lift the robot. When the robot is lifted and about to become airborne, press the [Damping] button on the controller to unload the robot's joints.
3. Next, press the power switch. The power switch button pops up, and the power indicator light along with the light strips on the back and the front/rear sides turn off. The robot shuts down.
4. Short press the battery power button, then long press until the battery indicator lights turn off, indicating that the battery has stopped supplying power. The shutdown is complete. If the robot is not to be used for a long time, remove the battery and store it separately as described in section 2.2.

3.7 Payload

The robot supports payload installation. Users can screw devices into the threaded holes on the back of the robot (unit: mm). The installation range of the load is limited to the area where the threaded holes are located, and the height is limited to 20 cm. It is recommended that the weight of the mounted devices should not exceed 15 kg. Please refer to the development manual for detailed information on retrofitting and secondary development.



Interfaces

⑧ 72V / 5A output

⑩ RJ45 Ethernet port



- When mounting devices on the back of the robot, the robot's motion performance may be affected. Please be sure to consult the after-sales personnel before installing.
- The maximum power supplied by the robot to the payload via the 72V output is 360W.
- Please cover the aviation plug with its cover.

4 Precautions

4.1 Work Environment

	• Do not operate the robot in environments with strong electromagnetic interference such as high-voltage cable, high-voltage transmission stations, base stations and television broadcasting towers, etc. • Please do not operate the robot in environments with strong WiFi signal interference. Be sure to turn off all other WiFi signal source, and then use the joystick to operate the robot. • Do not operate the robot in bad weather with fog, snow, lightning, sandstorms, windstorms, tornadoes, etc. • Keep the robot in sight and keep it at least 2 meters away from people, water, open flames, etc at all times. • Do not use robot on smooth surfaces such as ice, glass and tiles, If need to pass through smooth surfaces, please avoid violent movements to prevent the robot from slipping and falling. • Do not run the robot on the edge of a high place to prevent it from falling from a height and causing damage.
	The robot is IP66 protection rating only when two batteries are installed at the same time. The robot can completely prevent dust from entering and can withstand powerful water jets without harmful water penetration. But it does not support immersion, as damage caused by liquid infiltration due to immersion is not covered by the warranty. If water splashes, please wipe off the water stains on the surface of the equipment after use and store it. If the robot falls into water or is submerged in liquid, please stop using immediately, wipe off surface water stains, and contact after-sales for support.

4.2 Battery

	• Before using the battery, carefully read the instruction manual and battery labels on the surface. • Avoid storing battery packs in high humidity or high temperature environments. Battery packs should be kept in a semi-charged state and stored in a dry, well-ventilated, clean warehouse. The ambient temperature shall not exceed 40°C, and relative humidity shall not exceed 80%. The recommended storage temperature range is 0°C to 25°C.
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- Need to use the original battery charger.
- Do not drop or strike batteries. Do not place heavy objects on the batteries or charger.
- Never use the battery in a humid environment and never immerse it in water or get it wet.
- When water is touched inside the battery, a decomposition reaction may occur, which may cause the battery to self-ignite or even explode. It is strictly forbidden to expose batteries to any liquid, never immerse them in water or get wet, and keep away from rain or wet environment. If the battery accidentally falls into water, immediately place the battery in a safe open area and keep it away from the battery until it is completely dry. Drying batteries should not be reused.
- Disassembly of batteries without authorization is prohibited. Once disassembled, no warranty is granted. DEEP Robotics is not responsible for battery accidents caused by privately disassembling batteries.
- If not in use for a long time, please remove the battery from the robot, store it separately and charge it to a semi-charged state, so as to avoid over-discharging of the battery, which may cause damage to the battery cell and make it impossible to recover for further use.
- Do not short-circuit the battery positive and negative.
- When the battery pack is left for more than 3 months, it should undergo at least one charge-discharge maintenance cycle and then be stored again in a semi-charged state.
- If battery exhibits overheating, leakage, unusual odors, deformation or other anomalies in use or during storage, please stop using it immediately and stay away from the battery, and contact after-sales for further processing.
- Please refer to the battery instructions for details.

4.3 Other Precautions

	• When carrying the robot, pay attention to the anti-pinch label on the robot and do not put your hands into the position where the anti-pinch label is attached! • Do not lift the robot while it is moving to avoid unintended movements that could cause damage to robot or injury to people!
	• Please do not download other unrelated APPs in the controller. • It is strictly forbidden to disassemble the robot personally. Once disassembled, the warranty will be invalid!

5 FAQs

Q1: Is it normal for a robot to stop moving on its own?

A: Probably some kind of abnormality caused the robot to trigger its own protection mechanism, you can check the specific operation tips through the controller's APP. If it continues to fail to return to normal or does not display the abnormal handling prompts, please contact the after-sales service.

Q2: What if there is no response to the commands from APP after connected?

A: First confirm if the hard emergency stop is off. If the APP is still unable to control the robot, please restart the robot.

Q3: Can the robot continue to be used when its body or legs are askew after standing up?

A: At this time, do not control the robot to move. Please immediately trigger soft emergency stop to make the robot lie down. Then shut down and restart to try to control the robot to stand up again. If still abnormal, please contact the after-sales staff.

Q4: What if the robot falls down due to the loss of control of one of its legs?

A: First press the [STOP] button on the controller to make it down. Then restart the robot. If it does not return to normal after restarting, please contact after-sales staff.

Q5: What if the video stream gets stuck after the robot falls?

A: Restart the robot. If the video stream is still black, please contact after-sales staff.

Q6: What if encountering a problem that cannot be solved even after consulting this manual?

A: Please contact the after-sales staff promptly for help.

6 Transport & Storage

6.1 Transportation

When transporting the DR02, please use the transport case specifically designed for it.



Before shipping the robot with transport case, remove the batteries from the robot. And when shipping, make sure the front of the transport case is facing up.

6.2 Storage

- DR02 requires a clean and dry storage environment of 0°C ~40°C .
- Robot power must be off, and if the robot will not be used for a long time, remove the batteries from the robot.
- Do not allow water or other liquids to drench the robot.
- It is strictly forbidden to place other objects within the joint rotation range.
- It is recommended to store DR02 in the transport case specifically designed for it to protect it from shock and vibration.
- DR02 must be placed in the transport case with its back facing up.
- For the precautions for battery storage, refer to the "4.2 Battery".

6.3 Carrying

Please refer to section 3.1.2 "Handling Tips" for transporting the robot.

7 Service & Warranty

7.1 Warranty Policy

The warranty period for the major components of DR02 is as below.

Component Name	Warranty Period
Joint Module	Six Months
Replaceable Battery, Wide Angle Camera, Laser Radar, Control System, Other Electronic Components	One year

Tip: Shell, sole and other fragile parts, and transport case and other accessories are not covered by warranty. If necessary, please consult after-sales support.

The warranty period starts from the date of receipt. Products or parts that meet the warranty period and the contents of the warranty will receive free after-sales service. If the product you purchased is beyond the warranty period, you can also get help from us by purchasing a separate service.

7.2 Warranty Coverage

Depending on the specific situation, we will repair or replace parts accordingly for the product you purchased. However, the following cases will not be covered by the free warranty, but you can still choose to have paid after-sales service, for which please consult the after-sales support for details.

- Damage caused by man-made non-product quality problems.
- Unauthorized modification, disassembly, shell opening, etc.
- Out of warranty.
- Damage caused by improper installation, use and operation (such as dropping, crushing, immersion, violent use, etc.) as required by the manual.
- Damage caused by use in excess of the safe weight capacity.
- Damage caused by self-repair or replacement of parts without official instructions.
- Damage caused by installing third-party products by yourself.
- Damage caused by the use of a non-original battery pack for power supply.
- Failure or damage due to force majeure factors such as typhoon, earthquake, fire, lightning strike, abnormal voltage.
- Damage caused by operating the robot in an environment with severe signal interference.
- Damage caused by improper handling of the robot on slippery surfaces such as glass and ice.
- Fallen damage caused by the use of a robot near a high edge.

- Fallen damage other than operate the robot on flat terrain.
- Damage caused by operation in environments such as sharp terrain and large undulations.
- Damage caused by forced operation of parts in the event of aging or damage.
- Damage caused by not keeping a safe distance when used in complex environments.
- There are obvious traces of dust, grit, water, and metal powder intrusion inside the robot.
- Damage caused by improper handling operations.
- Damage caused by violent or non-violent means applied to the robot when it exceeds its anti-interference limit.
- Due to operation errors, there are obvious marks of collision and scratches on the surface of the robot.

7.3 Repair Instructions

- Before getting after-sales service, please make sure to backup all data and delete important data to prevent data loss or leakage. DEEP Robotics is not responsible for the loss or leakage of any data contained in the product.
- When you obtain after-sales service from DEEP Robotics, you authorize DEEP Robotics to make any modification, delete data or restore factory settings for the purpose of after-sales service.
- Before sending it for repair, please contact after-sales support, DEEP Robotics will try to diagnose and solve your problem remotely.
- If the above methods cannot solve your problem, you can send it back to the robot for repair after verifying with after-sales support. You need to pay for the postage first when you send the product to DEEP Robotics. After DEEP Robotics receives the product in need of maintenance, the product will be tested to determine the problem and responsibility.
- If the problem is caused by defects in quality of the product itself, DEEP Robotics will be responsible for the testing fee, material fee, labor fee and the postage for sending back.
- If the product does not meet the conditions of free repair, you can choose to pay for repair, and the corresponding testing fee, material fee, labor fee and the postage for sending back will be paid by you. You can also choose not to repair and to send back the product, the corresponding postage and insurance fee will be paid by you.
- Considering environmental protection and safety, please do not send back seriously damaged batteries. If you have sent back, DEEP Robotics will scrap such batteries and will not return them back.
- If you provide an incorrect delivery address which results in non-delivery or rejection by the recipient, the adverse consequences and losses shall be afforded by you.

- To ensure your rights and interests, when you sign for the after-sale products sent by DEEP Robotics, please check carefully whether the products are intact. If there is any abnormality, please immediately take video or photos on the spot and contact DEEP Robotics to get the solution. If there are unresolved after-sale problems, please also contact DEEP Robotics immediately, otherwise it is regarded as the end of this after-sale service without dispute.
- ※ The final interpretation of these after-sales terms and conditions belongs to DEEP Robotics.
- ※ Please contact us if you have any questions before obtaining after-sales service.
- ※ These after-sales terms and conditions are only used in Chinese mainland, and the after-sales policies of other countries or regions are subject to local laws.

8 Disposal

- The disposal of waste robots and parts shall be carried out in accordance with the corresponding national laws and regulations on the recycling of waste electrical and electronic products.
- In particular, the use or disposal of lithium batteries contained in robots is subject to national laws and regulations governing the disposal of batteries.



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