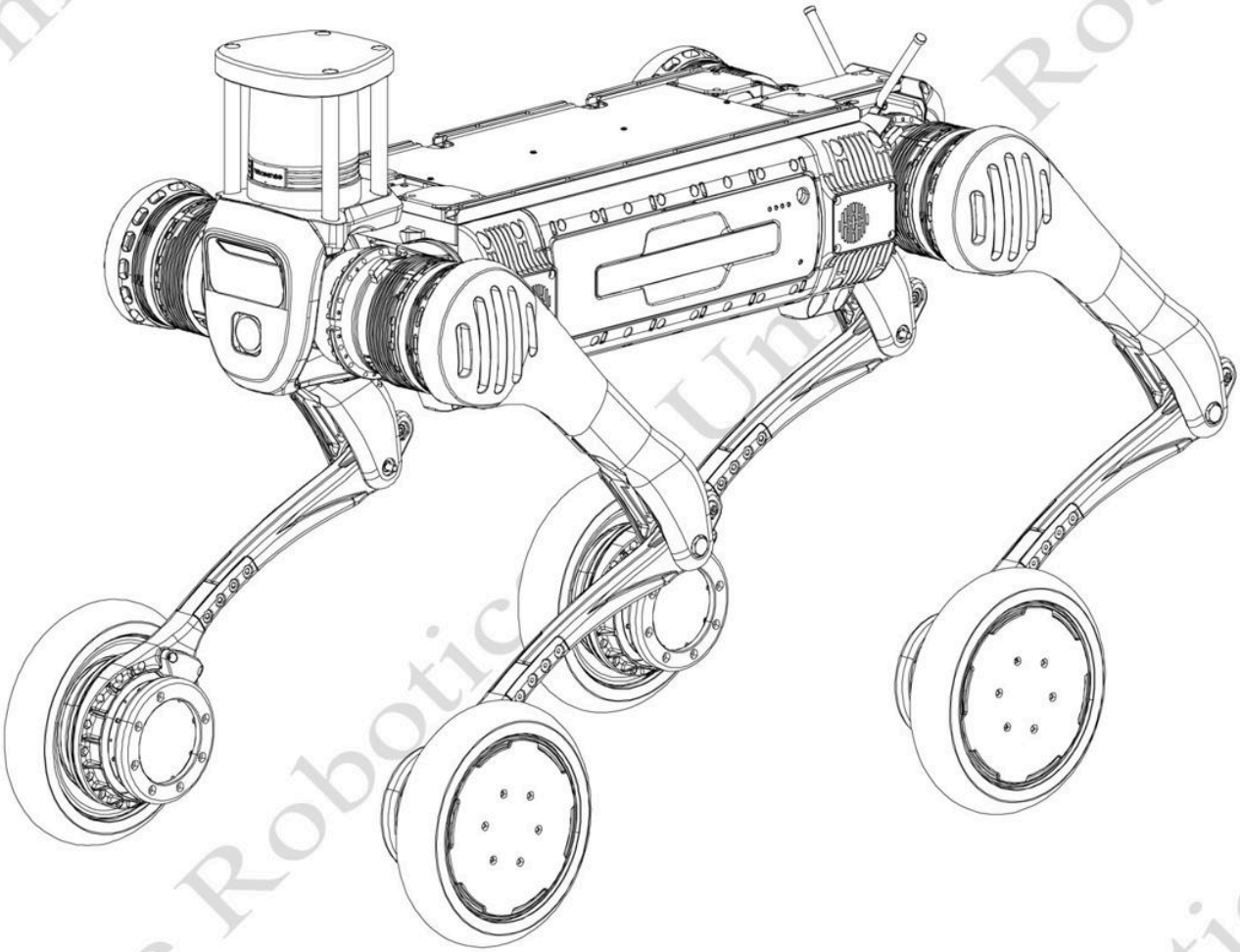
B2-W

User Manual V1.1



Unitree

This product is a civilian robot. We kindly request that all users refrain from making any dangerous modifications or using the robot in a hazardous manner.

Please visit Unitree Robotics Website for more related terms and policies, and comply with local laws and regulations.

Unitree Robotics

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Disclaimer

To avoid illegal behavior, potential harm, and loss, it is essential to adhere to the following regulations:

1) Please be sure to read this article carefully before using the product, understand how to use the product correctly and your legitimate rights, responsibilities, and safety instructions. Otherwise, it may bring property damage, safety accidents and personal safety hazards. Once used this product, you are deemed to have carefully read, understood, recognized, and accepted all the terms and contents of this article. Users untaken to be responsible for their actions and all consequences therefrom. Users undertake to use this product only for legitimate purposes and agree with these terms and any relevant policies or guidelines that Unitree may establish.

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5) Unitree Robotics does not provide any explicit or implied commercial and technical guarantees not involved in this article.

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8) The purchased parts are not within the scope of services included in this service specification.

9) No on-site services are provided for terminal products and accessories. The maintenance service provided by Unitree Robotics for more than one year is an optional service. The customers can choose whether to purchase related services and choose when to terminate them. If the customers choose to purchase related services, it means that the customer allows Unitree Robotics to access, collect and process information related

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Safety Instructions

B2-W is a quadruped wheeled robot featuring all-weather operation, powerful load-bearing capacity and scalability, multi-dimensional perception, full-scenario coverage, robust computing capabilities, and precise insights, designed for industrial-grade applications. It provides you with more efficient and intelligent solutions.

1) This product is not a toy and is not intended for use by persons under the age of 18. Keep out of reach of children and be careful when operating in the presence of children.

2) You are obliged to be aware of the laws in your area and to comply with relevant laws and regulations.

3) This chapter is an introductory chapter for new users to manipulate robots. New users can quickly master how to use the Remote Control to control the robot to show excellent movement performance by reading this section. This chapter is also a chapter that old users often need to refer to. Old users can read this chapter repeatedly to grasp the essentials of operating the robot, and then they can draw inferences from case, and know what kind of movements are not recommended.

4) When the users run the program developed by themselves in the developer mode: The remote control commands are still valid when the high-level (application layer) is developed. At this time, if the high-level API commands and the remote control commands are sent to the robot, both commands will be executed by the robot. It may cause the robot to become unstable. Please be sure to judge whether the users need to use the remote control according to the running state of the robot. Remote control commands fail during low-level development.

5) When using, please control the robot within sight, keep a certain safe distance from the robot, and do not touch the robot with your hands after the robot is powered on.

6) When using complex remote control commands, such as forward jumping, please make sure that there are no obstacles (especially people) within a half-circle with a diameter of 4 meters in front of the robot dog.

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If any casualties or property damage occur due to non-standard operations, Unitree Robotics will not be responsible for any resulting losses and consequences!

7) Safety reminder for restoring standing position: Restoring standing position requires space for the robot dog to flip over. Please ensure that there are no people or objects within a 2-meter diameter circle around the robot dog to avoid unnecessary casualties and property damage. Otherwise, Unitree Robotics will not be responsible for any resulting losses and consequences.

8) When the battery power is only one block left, please stop and turn off the robot dog in time, take out the battery to charge to avoid the damage of falling when the battery is low.

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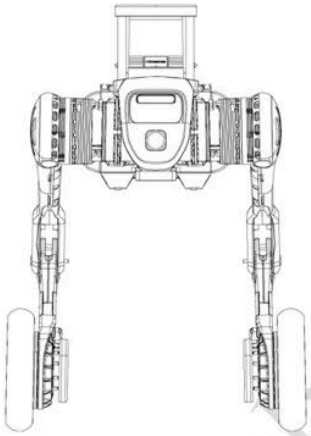
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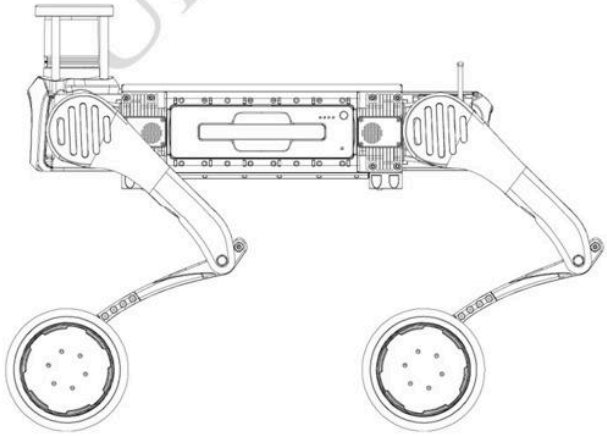
Product Overview

Introduction

B2-W industrial-grade protection quadruped wheeled robot features exceptional mobility, equipped with high-power wheel motors. The platform achieves a maximum moving speed of 15 km/h, with its main body structure constructed from aircraft-grade aluminum alloy and carbon fiber - high-strength, lightweight materials. It weighs 85 kg total with a push-to-weight ratio of 6.25, capable of jumping 0.5m to 1.2m distances to adapt to various complex terrains. All connecting structural components utilize 6061-T6 aluminum alloy, while critical components employ 7075-T6 alloy for impact resistance during falls.

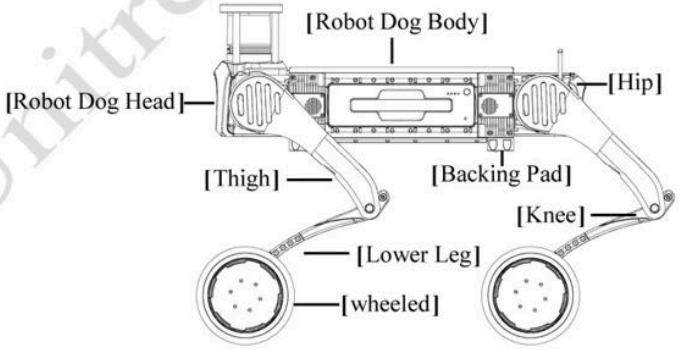
Standard configuration includes ultra-wide-angle omnidirectional lidar, with depth cameras and optical cameras mounted front/backward to provide B2-W with advanced obstacle avoidance and terrain adaptation capabilities. Combined with deep learning algorithms, it enables flexible dynamic obstacle avoidance. Processor options include Intel Core i5 (platform functionality), Intel Core i7 (user development), with optional Intel Core i7 and NVIDIA Jetson Orin NX (up to 3 units) for superior AI computing power to meet diverse industrial application demands.

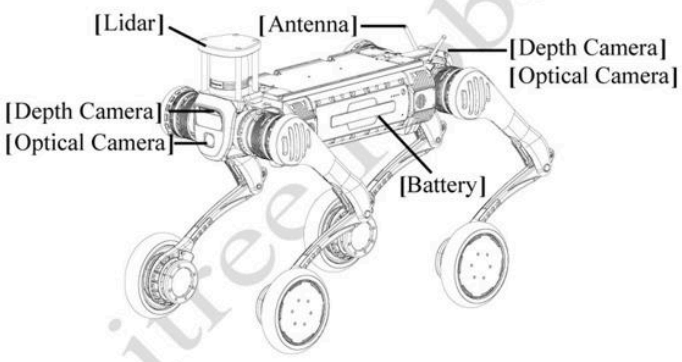




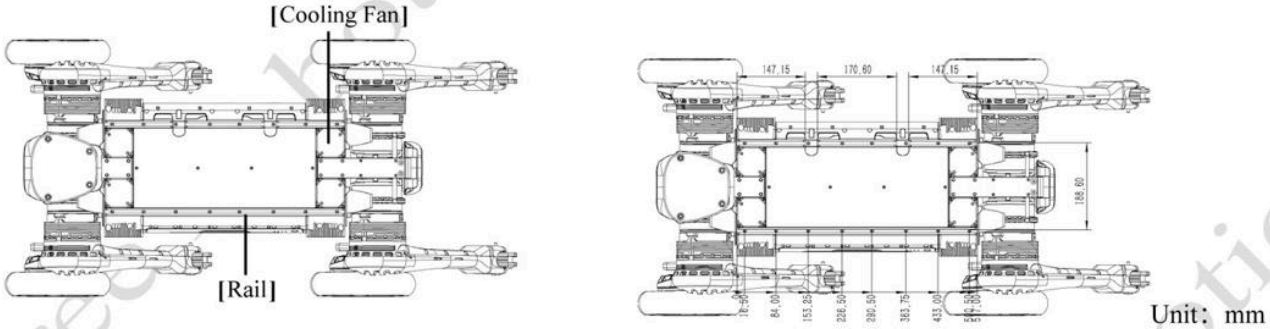
Parts Name

The B2-W quadruped robot body is illustrated in the figure below. For accurate details, please refer to the actual product.



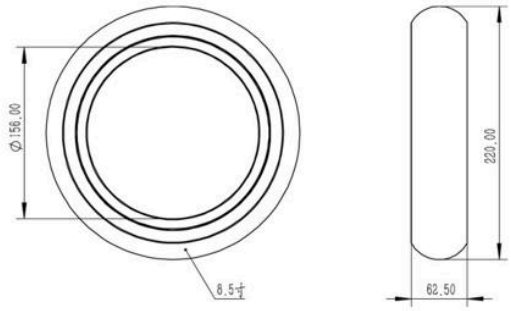


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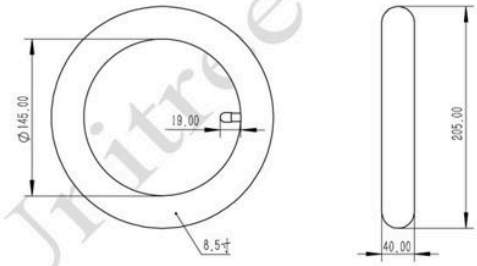


Note: The radar used here is based on lidar technology, which uses infrared emission, not radio wave emission.

B2-W Tire-Related:



Outer Tire



Inner Tube

Function Highlights

1) Exceptional Load Capacity, Versatile All-In-One Helper

The B2-W delivers unprecedented load-bearing performance with a maximum standing load of 120 kg and continuous walking load exceeding 40 kg. It meets diverse loading requirements for specialized and complex operations, serving as a powerful versatile assistant in emergency scenarios for operators.

2) Superb Endurance, Continuous Operation

The B2-W features a battery capacity of up to 45000mAh, utilizing high-performance battery cells and an advanced Battery Management System (BMS) independently developed by Unitree. With a maximum range of approximately 30km when unloaded and 25km under a 40kg load, it delivers robust power support for the B2-W wheel-legged robot. Additionally, an optional contact-based charging pad enables autonomous recharging, significantly extending operational duration and efficiency, thereby ensuring reliable around-the-clock operation.

3) Ultimate Power, Exceptional Athletic Performance

With a top speed exceeding 15 km/h, the B2-W rapidly executes tasks to boost work efficiency. Its robust mobility allows seamless navigation across complex terrain, including 20-25 cm stair steps and 40 cm vertical obstacles.

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4) Multi-Surface Adaptability, Advanced Obstacle Avoidance

Leveraging an ultra-wide-angle omnidirectional lidar, dual depth cameras, and optical cameras (front/back), the B2-W combines long-range perception with anti-interference capabilities. Integrated with Unitree's self-developed motion control algorithms, it enables high-resolution environmental recognition for agile dynamic obstacle avoidance. Capable of climbing stairs and traversing rugged terrain (e.g., ruins, railway tracks), it demonstrates superior maneuverability and flexibility in hazardous environments—replacing human workers in high-risk scenarios.

5) IP67-Degree Dust/Water Proofing, Rugged Protection

Constructed with high-strength sealed materials and specially treated joints, the B2-W ensures water resistance even during submerged operation. Certified to IP67 standards, it withstands outdoor rain, extreme temperatures, and harsh conditions.

6) Modular Extensions, Precision-Enhanced Applications

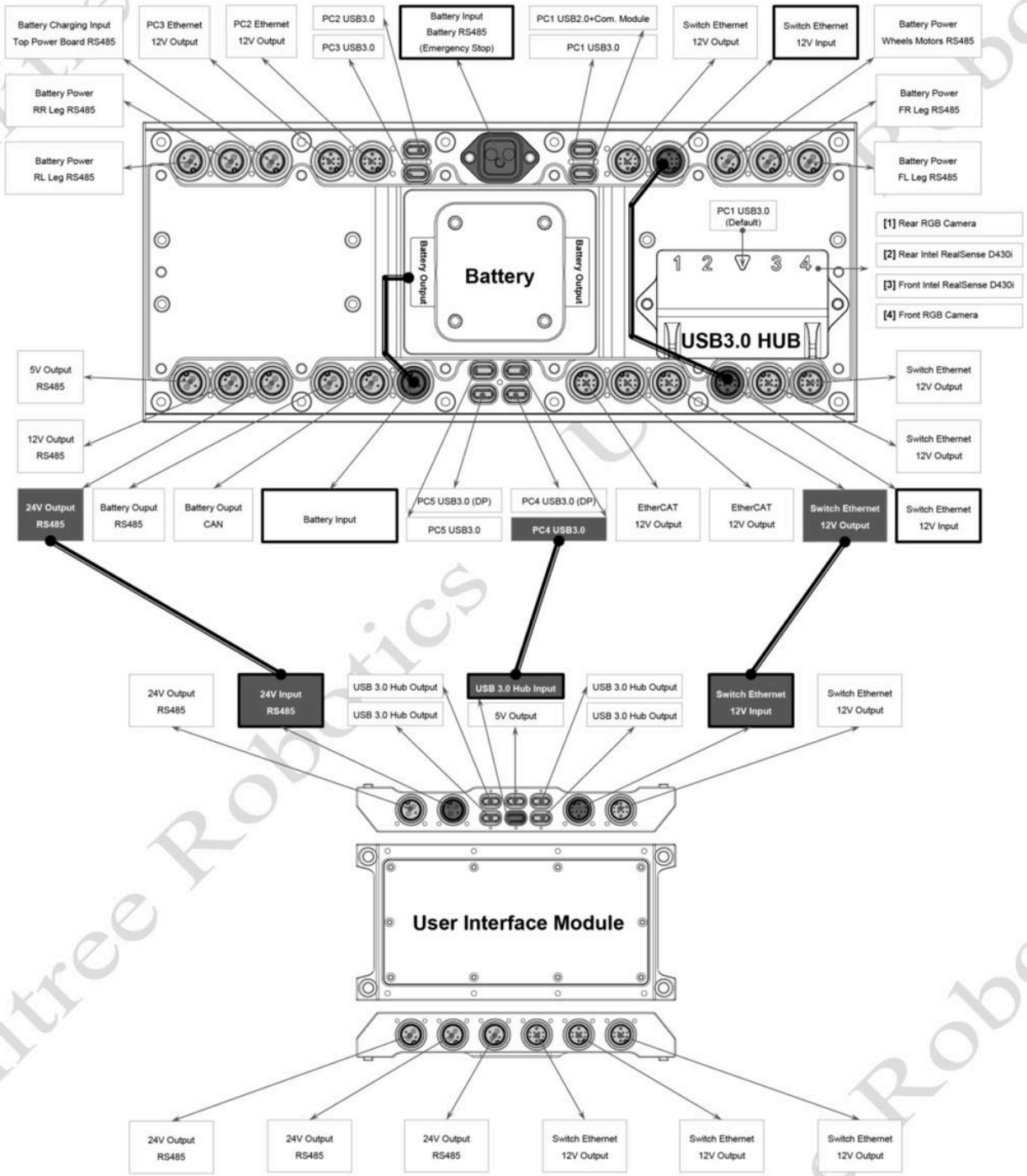
The B2-W offers multiple I/O interfaces: 1000M Base-Ethernet ×4, USB3.0 ×4, 12V ×4, 5V ×1, 24V ×4, BAT ×1. Compatibility with Unitree's Z1 robotic arm enables complex task execution. Users may integrate external devices such as gas sensors, temperature sensors, 5G networking modules, PTZ cameras, and industrial cameras for applications like power inspections, fire rescue, and logistics automation—enhancing safety, efficiency, and precision in traditional workflows.

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Interface Description

The B2-W fuselage provides an SDK extension port on the side, so that developers can continue to develop more extension functions, as shown in the following figure.

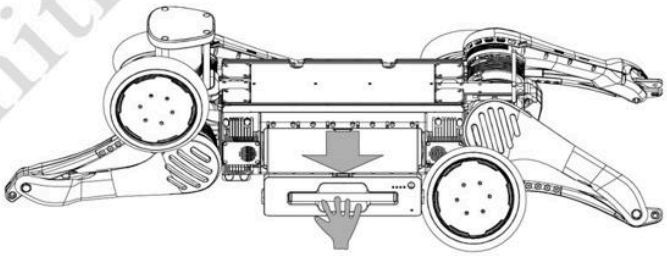


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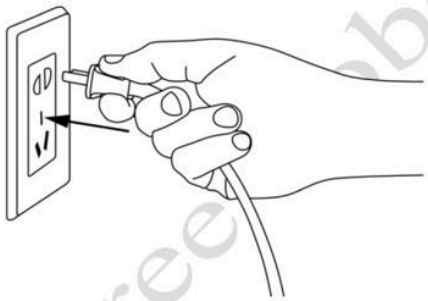
How to charge

Due to factors such as battery self-discharge during transportation and storage, it is normal for the battery to have low or no power when first used. You can charge it as follows.

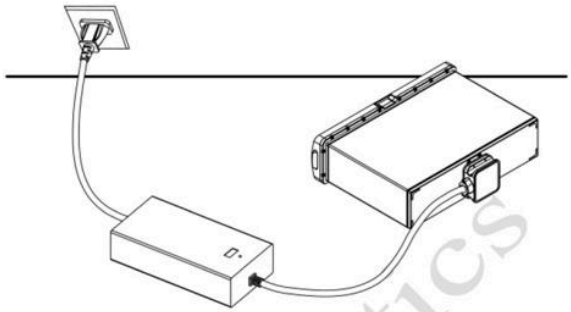
Charge the battery



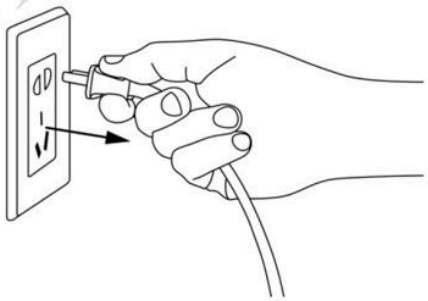
1) Remove the battery from the B2-W body
(Pull out the battery pack strap)



2) Charger input AC power
(100-240V, 50/60Hz)



3) Connect the B2-W battery



4) Manually disconnect the power when fully charged

1) Connect the charger to an AC power source (100-240V, 50/60Hz). It must be ensured that the external power supply voltage matches the rated input voltage of the charger before connecting. Otherwise, the charger will be damaged (the rated input voltage of the charger is marked on the nameplate of the charger).

2) Plug in the input AC power first before charging the battery, then connect the charger to the battery.

3) Before charging the battery, ensure that the battery pack is switched off. Otherwise, the battery and charger may be damaged.

4) The users need to remove the battery pack from the robot itself when charging the battery pack.

5) In the charging state, the battery indicator of battery pack will flash at a frequency of 1Hz (1 second/time) and indicate the current battery.

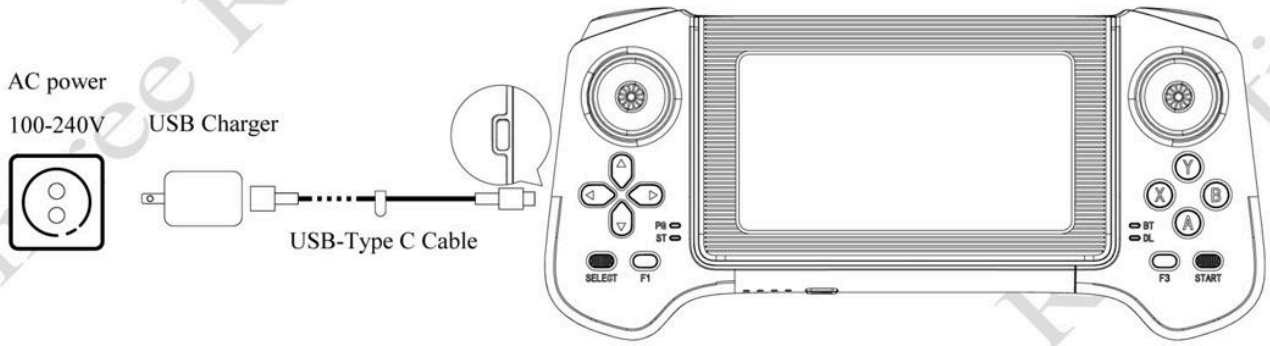
6) If the battery indicator is off, the battery pack is fully charged. Please remove the battery pack and charger to finish charging.

7) After the robot completes operation, the battery pack may reach elevated temperatures. Must cool the battery pack to room temperature before recharging to prevent thermal damage.

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Remote Control Charging

When the battery indicator light of the companion remote control shows that the battery is low, you should connect the companion remote control to the charger as shown in the figure below:



1) We recommend you to use a 5V/2A USB charger which meets FCC/CE standard.

2) Ensure that handheld remote control is switched off before charging it.

3) The power indicator light will flash at 1Hz (1 second/time) in charging status and indicate the current power level.

4) When the power indicator light is all on it means the battery pack is full, please remove the charger to finish charging.

Charging Indicator Light				
LED1	**LED2**	**LED3**	**LED4**	**Current Battery**
☀	○	○	○	0%-25%
☀	☀	○	○	25%-50%
☀	☀	☀	○	50%-75%
☀	☀	☀	☀	75%-100%
☀	☀	☀	☀	Fully Charged

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Instructions for use

Operation Environment Requirement

1) Run the robot in -20℃ -55 ℃ with good weather condition. Do not operate in bad weather, such as lightning and tornado weather. When operating in water, the users need to be sure to comply with the requirements described in the IP67 Protection level instructions.

2) Please keep it under control in the users' view when using the robot and keep the robot maintain a safe distance of at least 3 meters from obstacles, complex ground, crowds, water, and other objects.

3) Do not operate the robot in electromagnetic interference environments. Electromagnetic interference sources include but are not limited to: high-voltage power lines, high-voltage substations, cellular telephone towers, and television broadcast towers.

4) Please do not run the robot in the WiFi signal interference environment. WiFi signal interference is usually caused by co-channel interference. In case of interference, be sure to turn off some or all WiFi signal sources of other wireless devices before using the remote control to operate the robot.

5) Due to varying levels of operational proficiency among personnel, for reliable and safe operation, please use the robot in open, unobstructed, and flat ground environments. When operating the robot, note that steps must be lower than 20cm and slopes less than 20°. Failure to meet these conditions may cause the robot to fall. When the robot walks on complex terrain with uneven surfaces or inclines, operators should reduce its walking speed and maneuver cautiously to prevent tripping over obstacles.

6) Legged robots have specific ground requirements. Do not use the robot on surfaces with extremely low friction, such as ice. Avoid using it on soft ground, including thick sponge surfaces. When operating on smooth surfaces like glass or tiles, please control the robot's movements gently and smoothly, avoid abrupt motions, and reduce its walking speed to prevent foot slipping and potential falls.

Unpacking

Place the box on a flat surface according to the placement requirements (with the front side up), then open the top of the box and lift the robot out in its entirety. Remove the quadruped robot, the remote control, the charger, etc. from the box separately, place the quadruped robot flat on the flat surface, and then prepare to power it on.

Check before Power on

1) Only Use Unitree Robotics authentic parts and ensure that all parts are in good working condition.

2) Ensure that the firmware has been updated to the latest version.

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3) The users ensures that he or she is not operating the robot while intoxicated, under the influence of drugs, and unable to concentrate.

4) Be familiar with the characteristics of each gait mode. Be familiar with the emergency braking method of the robot in case of instability / loss of control.

5) Ensure that there are no foreign matters (such as water, oil, sand, soil, etc.) inside the robot and its components.

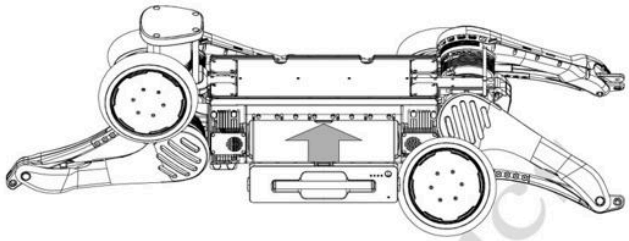
6) Ensure that the remote control module and battery pack are fully charged.

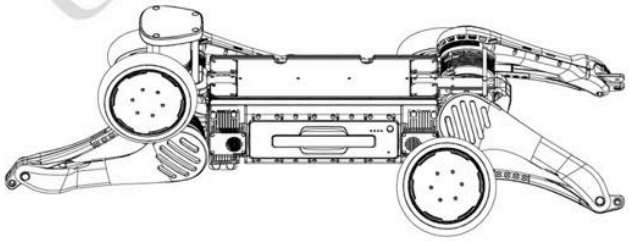
7) If the expansion interface is used, check whether the cable connection is correct.

Preparation before Power on

1) Installing Battery Packs

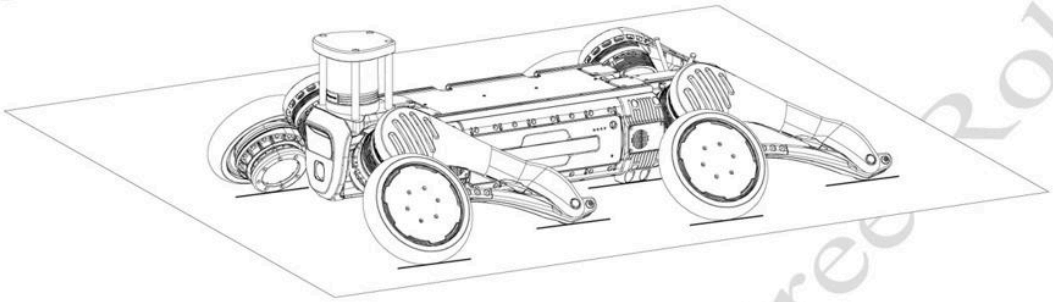
Place the B2-W on a flat surface, insert the battery pack into the battery slot on the side of the robot, paying attention to the installation direction with the anti-reverse interface facing upward. If the battery pack cannot be fully inserted, please adjust the orientation of the battery pack. Do not force it to avoid damaging the battery interface and buckles. When you hear a "click" sound, the battery pack is installed. Please ensure that the buckle is in place!





2) Body Placement (Important Steps !!!)

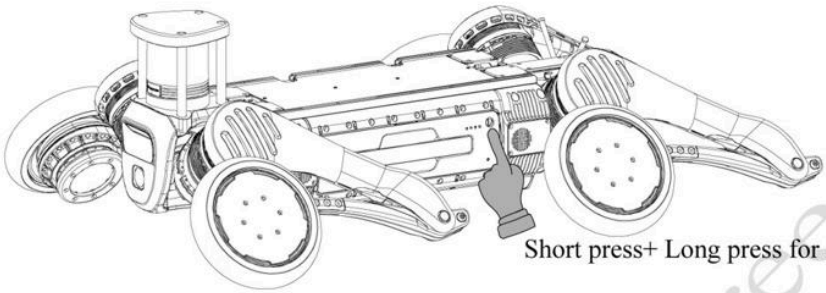
Horizontal type startup: please make sure that the robot dog is placed on a flat ground before startup and operation. The belly support pad of the robot dog should be flat against the ground. The machine body should lie on the ground horizontally without tilting. The legs of the robot dog should be fully retracted (as shown in the figure below). The four knee joints and foot ends should be flat on the ground to ensure that neither the thighs nor the legs of the robot dog are pressed by the machine body.



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Start up B2-W

After completing the pre-startup check and preparation of the robot, power it on by following these steps: first, briefly press the power button, then press and hold the power button for more than 3 seconds to activate the battery (when the battery is activated, the indicator light will be a solid green, indicating the current battery level). After the battery is activated, wait for 2 minutes, and the robot will automatically stand up with the body parallel to the ground, indicating a successful startup.



Short press+ Long press for more than 3 seconds

⚠
- If the starting up fails, please check the placement of the body!
- protruding outward or the lower legs being pressed inward may cause the robot dog to fail to start up!
- Be careful with your hands at the movement joints, be careful!
- After B2-W starts up, it will stand up automatically. Please maintain a safe distance.

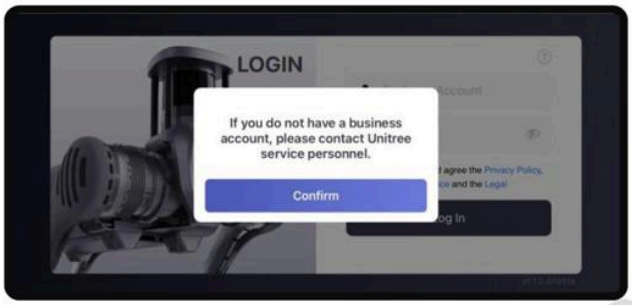
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Connecting to the Unitree Explore App

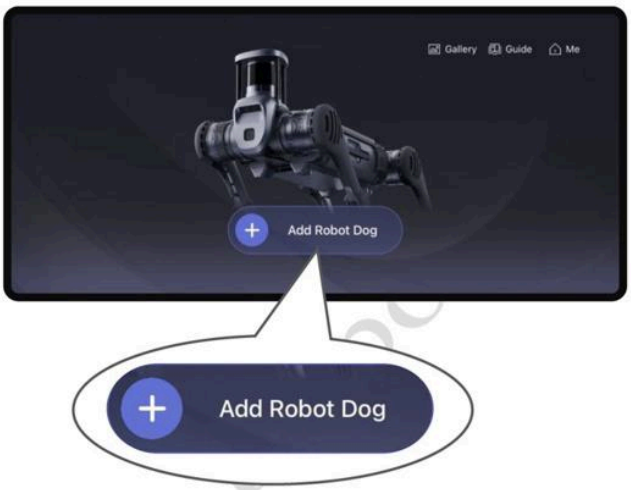
To use it for the first time, you need to bind the device. During the binding process, please turn on the Bluetooth on your mobile phone and keep it close to B2-W to ensure real-time Bluetooth communication.

1) **Download and install the Unitree Explore App**, and log in with the enterprise account and password provided by Unitree.



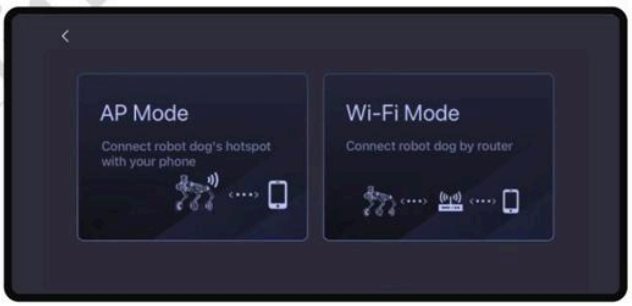
● If you don't have a business account, please contact Unitree Robotics's sales service personnel to open an account!

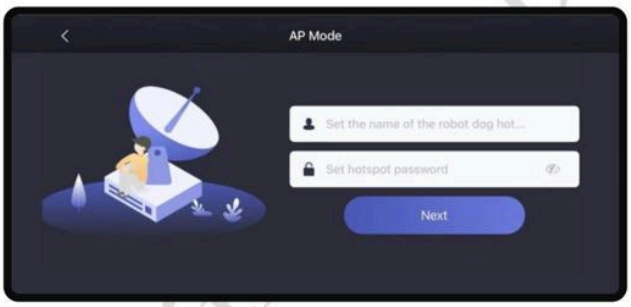
2) After starting the B2-W power, **add the robot in the Unitree Explore App**: Turn on the Bluetooth in the phone system -> Click "Add Robot" on the homepage -> Select the device you want to add.



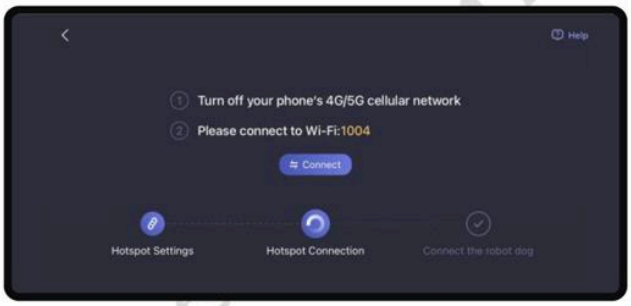


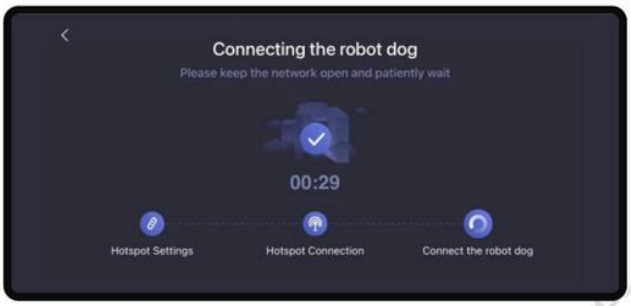
3) **Binding B2-W**: You can choose to connect in AP direct connection mode or Wi-Fi connection mode. After successful connection, you can learn from the built-in tutorials to quickly master the control techniques.

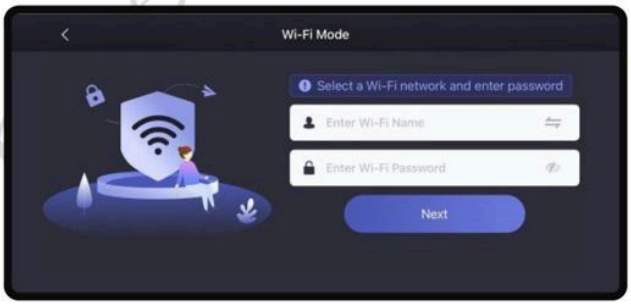


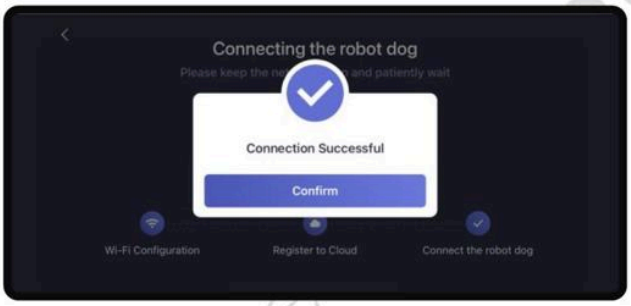


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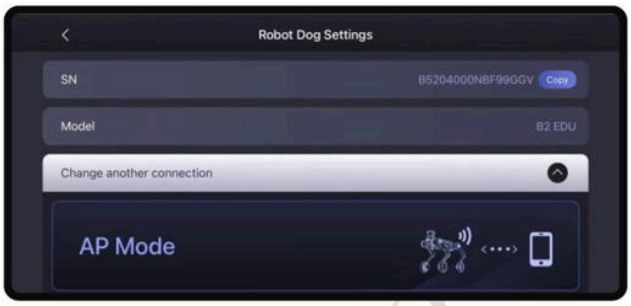


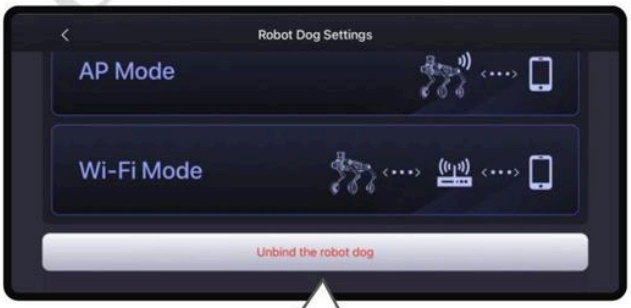




4) How to change the account binding?

Click on the homepage to go to **[**Settings**]** -> **[**Robot Settings**]**, then select Unbind to release the binding of the robot dog from the current account. After the robot dog is unbound, it can be bound to another account.







⚠ ● Please keep your mobile phone's bluetooth on during connection!

● Bluetooth connection error: Unitree Explore App needs to access Bluetooth permissions. Please open the Bluetooth permission for Unitree Explore in your phone's App settings.

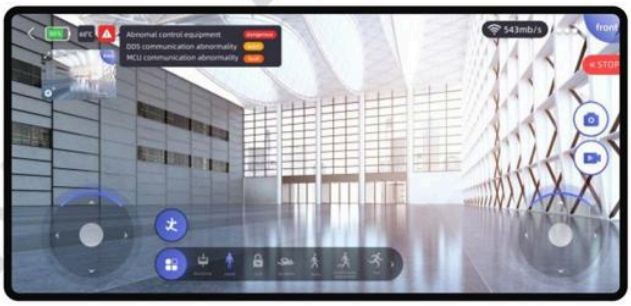
● If you forget to bind your account or lose your account, please contact relevant personnel at Unitree!

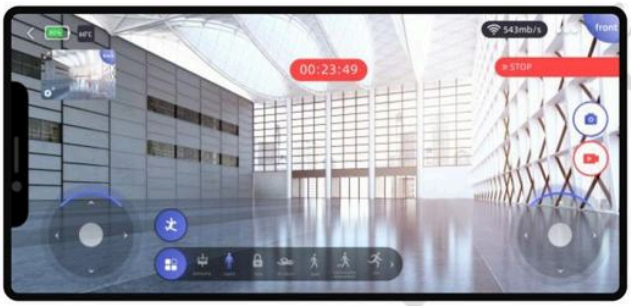
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Operate your B2-W

1) Use the Unitree Explore App to control

After completing the built-in tutorial in the Unitree Explore App, you can use the app to control your B2-W as you want.



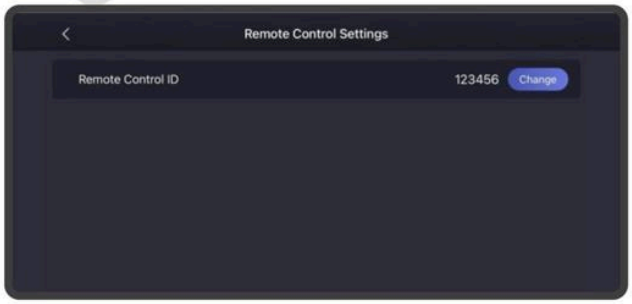


2) Use remote control to control

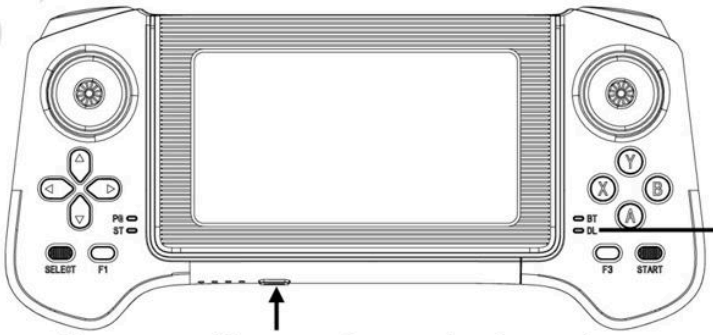
First, short press the power button on the remote control, then press and hold the power button for more than 2 seconds. When you hear a "beep" sound, the remote control will be turned on.

To use the remote control for the first time, you need to bind it in the Unitree Explore App. Go to **[**Settings**]** -> **[**Remote Control Settings**]**, enter the corresponding remote control code to bind it with the data transmission module on the robot dog. Click **[**Modify**]** to change the remote control for operation.





After powering on the remote controller and successfully establishing a connection with the B2-W, the right DL indicator light will illuminate. This indicates that the remote controller has established a connection with the B2-W data transmission module. At this point, you may operate the robot to perform corresponding actions using the instructions on the remote controller"s surface label.



● Please use the remote control commands affixed to the remote control or visit the Unitree Explore App to access the remote control user manual.

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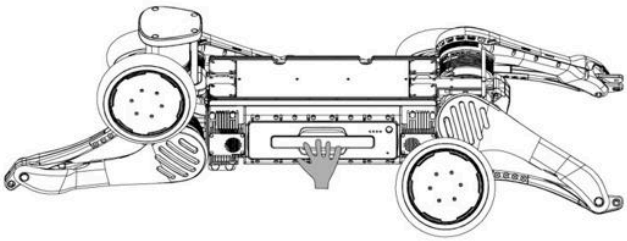
Switching off B2-W

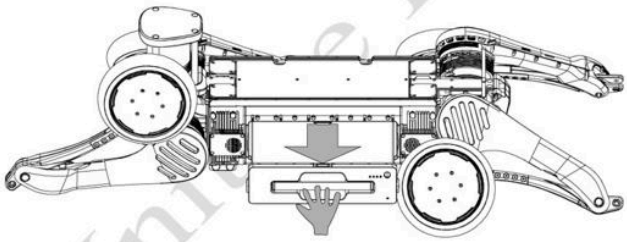
Please make sure that the robot dog stands on a flat ground and the robot is in a static standing state before turning it down, (the position of the robot body is in the initial state after startup and standing, the body is horizontal, the handle is not operated, and the robot is in a static standing state).

1) Press the buttons L2+A twice, and the robot completes the joint locking and lying down actions in turn.

2) After the robot enters the lying state, press the power button briefly and then press the power button for 3 seconds to shut down.

After turning off the power, please place the robot in the required position, and arrange the legs and hip joints properly to prepare for the next power on. If B2-W is not used for a long time, please remove the battery pack in time: pull out the battery pack handle, and the battery pack will pop out and can be removed.

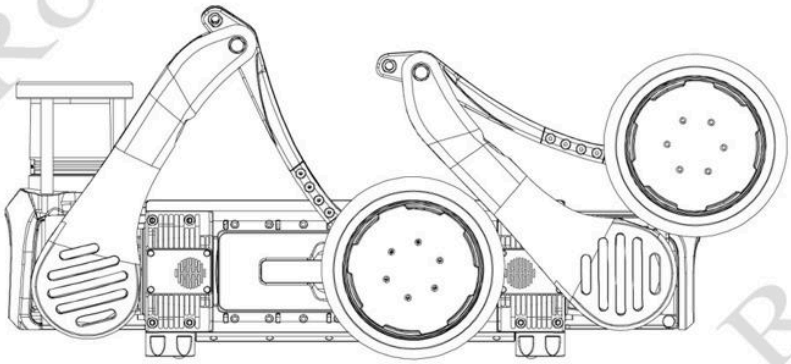




⚠
- Please make sure that the robot turned off in a damping state, otherwise the robot will fall heavily on the ground after it is turn down and powered off, which may cause damage to the robot body and certain potential hidden dangers!
- Be careful to pinch your hands at the movement joints, please be careful!

Packing

Preparation for packing: Rotate the legs of the quadruped robot to the position shown in the picture (rear leg retracted step: rotate the rear leg hip motors so that the rear thighs are placed in the position as the picture shows, and at the same time retract the rear lower legs to the position shown in the picture.



After completing the pre-packing preparations, first place the quadruped robot into the lower part of the transportation case. After the quadruped robot is placed in the lower part of the case, put the accompanying remote control, charger, etc. into their respective positions inside the transportation case to ensure that none of the above items will fall out when the upper part of the case is closed.

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Abnormal Condition Description

When using the B2-W quadruped robot, the robot may be abnormal. Most abnormal situations are controllable (there are solutions). The users should not panic when encountering these problems. Read the following contents in detail and solve the problems step by step.

If you have any questions, please contact Unitree Robotics official technical support:support@unitree.cc.

1) Self-testing fails after startup

If the robot fails to stand up after lying on the ground for 2 minutes during startup, it indicates a failed self-check. In this case, the robot needs to be rechecked following the "Check before Power on" and "Preparation before Power on" steps before attempting again.

2) Robot self-protection upon falling

In the use of Unitree Robotics official movement control program (control the robot move by using the remote control), the robot will switch to self-protection status as a result of falling down caused by the external environment reasons (lack of friction, etc.) on the surface or improper operation, the motor of the robot will automatically switch to the braking state to protect the various parts.

3) App connection abnormality

If using the AP direct connection mode, check if the phone is connected to the AP hotspot emitted by the B2-W. If the hotspot configuration fails, ensure that the hotspot name does not contain special symbols and spaces. Also, ensure that the robot and the phone are close to each other, then restart the robot and the App to attempt the connection again.

If the Wi-Fi connection mode is adopted, you can check whether the connected Wi-Fi network is normal and can access the Internet.

4) How to turn off the robot when the remote control module fails

When encountering the failure of the remote control module (such as the handle battery exhaustion, etc.), the remote control buttons cannot be used to make the robot lie on the ground and standby. The only way to forced shutdown is to press the battery supply button.

Forced shutdown: Keep the robot at least 2 meters away from obstacles, complex ground, crowd, water, and other objects. Hold the head and tail of the robot, short press the power switch once, and then long press the power switch for more than 3 seconds to turn off. Move it to the ground slowly after powering off.

5) The robot is easy to fall down and cannot stand when powered on

If the robot fails to stand up after startup due to incorrect startup posture leading to incorrect motor angles, restart the robot with the correct startup posture. If restarting the robot does not resolve the issue, it is necessary to recalibrate the robot joints according to the relevant steps in the Unitree Explore App.

Note: B2-W has been calibrated by default after leaving the factory. Do not recalibrate the joints for normal use! If any abnormal situation occurs with the B2-W, please consult Unitree's official technical support before determining whether joint recalibration is necessary.

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The entrance for joint calibration in the App is [Settings] -> [Data] -> [Robot Dog] -> [Calibration].

6) How to enable long-term standby mode

If you need to stand by for a long time, please control the robot to the lying position and press (press L2 + B keys to enter the damping mode) to avoid the robot from falling down and falling when the power is low!

⚠ ● Attention! When lifting the robot, do not place your hands on the joints, such as the hip joint, to avoid pinching. If the robot is forced to shut down while standing without protection, it will fall flat on the ground after losing power.

Precautions

1) Regarding the safety of resuming a standing position

Resuming a standing position requires turning-over space. Please ensure that there are no people or objects within a circle with a diameter of 3 meters around the robotic dog. To avoid unnecessary casualties and property losses, Unitree Technology will not be liable for any losses and consequences arising therefrom.

2) Regarding the safety instructions for complex commands

When triggering the forward jump command, the forward jump function is considered a dangerous action. Please make sure that there are no obstacles (especially no people) within a semi-circle with a diameter of 4 meters in front of the robotic dog. If casualties or property losses are caused by non-standard operation, Unitree Technology will not be liable for any losses and consequences arising therefrom!

3) Regarding Endurance

With a 40kg load, the maximum range is approximately 25km, and approximately 30km when unloaded. The actual endurance depends on the robot's specific operating conditions. Factors such as prolonged high-speed walking, extended periods of violent adjustments to body posture while standing, bent-leg postures, loaded operation, low body height movement, and terrain with moderate bumps or slopes will all reduce operational time. (When the body height is low and the knee joints are relatively more bent, the motors endure significantly higher loads, leading to notably increased power consumption accompanied by motor heating.)

4) Regarding steps and undulating road surfaces

Due to the varying proficiency levels of actual operators, for reliability and safety, it is recommended to pass steps that are no higher than 20 cm. Otherwise, there is a high probability of tripping due to improper operation. When encountering undulating ground, the operator should also be cautious and reduce the movement speed of the robot.

5) Regarding climbing slopes

The rated forward climbing angle is less than 20°. When using a relatively large climbing angle (approximately equal to or greater than 45°), the robot's body is likely to drift laterally; when making a direct

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turn on a slope with a relatively large gradient, the robot is likely to lose stability; when climbing a slope, please reduce the walking speed; the operator needs to control it properly.

6) Regarding obstacle crossing

The obstacle crossing distance of B2-W is less than or equal to 20 cm. Please do not cross obstacles higher than 25 cm. When operating the robot to cross obstacles, please be cautious and appropriately reduce the walking speed.

7) Regarding speed

Under stable operation on a flat terrain, the maximum moving speed of the platform is 15 km/h. Please stay away from crowds during operation!

8) Regarding the foot-end components

The wheel-foot components of the robot are consumables. In particular, when the robot operates on a relatively rough ground, the wear will be relatively severe. If obvious tire wear or damage is found, or if the impact noise on the ground is significantly increased when the robot is walking, please replace the wheel-foot components in a timely manner to prevent abnormal movement or damage of the robot caused by the damage of the wheel-foot components. At the same time, we will provide detachable foot-end components as a gift along with the product.

9) Regarding the IP67 level protection

Before operation, please first ensure that the battery interface, the battery compartment interface, the surface of the battery, and the surface of the battery compartment are dry and free of water, and then insert the battery into the robot body. After working in water or rainy weather, please wipe the surface of the robot body clean.

10) **Do not touch the robot while it is in motion!** Be careful of getting fingers caught at the joints, such as the knee joint.

⚠ ● The maximum moving speed of the platform is 15 km/h, which is achieved under special configurations. In reality, for safety reasons, there will be speed limitations.

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Daily Maintenance

Whole Machine Clean

1) Clean

When the B2-W is used in harsh environments (rainy, dusty, wet), please clean the surface of the robot body in time.

Before cleaning the robot body, please turn off the power, use a clean, soft cloth to wipe the body, especially pay attention to whether the multi-view depth camera is wiped clean. It is strictly forbidden to use metal brushes, sandpaper, etc. to clean to avoid scratching the surface of the parts. After cleaning, dry the body with a soft cloth. After drying, use a fan or air gun to dry the accumulated water on the surface of the robot and the joint gap to avoid leaving water marks.

⚠ ● Be careful! The whole B2-W robot (including battery pack) has IP67 waterproof. Do not remove the battery pack when cleaning!

2) Storage

The B2-W should be stored in a dry and cool room and away from the sun and rain to avoid the corrosion of parts and shorten the service life span. Take out the battery pack when storing for a long time.

Inspection and Maintenance

Carrying out routine inspection before and after operation can greatly improve the reliable performance of products, reduce potential safety hazards and extend the service life span.

Uncharged checklist

Type	Main points
Appearance of the whole robot	1) Whether the appearance of the body is clean and free of damage or deformation marks. 2) Whether the lens on the camera surface has foreign matters. 3) Check if there are any obstructions around the head-mounted LiDAR.
Structure	1) Visually and touch to check whether the body, joints, connections, and foot end parts are in good condition. If there are cracks or damages, replace them in time and contact Unitree Robotics after-sales service. 2) Ensure that the screws of all connecting parts are locked, especially the screws of joint connectors and battery locking knobs. 3) Check for any obstructions in the intake and exhaust of the cooling fan.
Foot end parts	Check whether there is obvious foot pad damage. If there is damage, please replace it in time.
Battery packs	1) Check the battery pack interface of the body for foreign matters and deformation. 2) Whether the battery pack is installed reliably to ensure that it will not loosen during operation. 3) Check whether the battery pack shell is obviously damaged. The battery pack with obvious damage is forbidden to be used.

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Remote Control	1) Whether the remote control rocker is in the middle position and whether the rocker enters sand and other foreign matters. 2) Check whether each key of the remote control is lagged.

Uncharged checklist

Type	Main points
Remote control	1) Confirm whether the basic operation function of the rocker is normal. 2) Confirm whether the current power is sufficient
Battery	Confirm whether the current power is sufficient.
Cooling fan	Listen carefully with ears to confirm that the cooling fan works normally and there is no sound such as scratching.

Battery pack maintenance

1) Never charge the battery pack in an environment where the temperature is too high or too low

2) Never store the battery pack at room temperatures above 40°C.

3) Do not overcharge the battery pack as this will cause damage to the cells.

4) If you do not use the battery for a longer period of time, please check the remaining battery power regularly, if the power is less than 30%, please charge the battery to 70% before continuing to store. So as not to over-discharge the battery and damage the battery.

- It is recommended to do the above inspection before each use!
- If any parts are damaged and need to be replaced, please contact Unitree Robotics after-sales service in time!

Revision History

Version	Date	Modification Content
1.1	July 29, 2025	Endurance capability
1.0	April 18, 2025	Initial Version

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