

Go1

Manual V1.0



Unitree

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Disclaimer:

The document is produced by Unitree Robotics (<https://www.unitree.com/>) in China, based on the information collected from the robot manufacturer, as well as in-house experiment and research. Unitree Robotics tried its best to ensure the accuracy of the information at the time of producing the document. Unitree Robotics does not accept any responsibility whatsoever for misrepresentation by any person whatsoever of the information contained in this manual and expressly disclaims all and any liability and responsibility to any person, whether a reader of this training manual or not, in respect of claims, losses or damage or any other matter, either direct or consequential arising out of or in relation to the use and reliance, whether wholly or partially, upon any information contained or products referred to in this manual.

GO1 Introduction

Hardware Components

The GO1 quadruped robot comes with the following hardware components:

		
The power adapter	controller	Label controller
		
Go1 battery	charger	foot

Quick Assembly

The GO1 comes in a luggage. The default passcode is 000.



The GO1 should be found in the following position.



There are four LED lights on the battery to indicate the power, four bars indicate full power, short press the button to check the power



Place the GO1 on a flat ground. Then, insert the battery into the side of the GO1's body. Push the battery in until you hear the click sound from the battery's locking mechanism.



The GO1 should then be placed in the following configuration, with all 4 limbs flat on the ground:



Proper starting configuration of GO1

To switch the GO1 on, locate the power button on the GO1's battery pack and perform 1 short press followed by 1 long press. Awhirring sound will be heard and the robot will stand up by itself. In this case, the robot dog can be controlled by the remote control



After about 1min after powering on, the head of the robot dog will flash a white light. This means you can control the robot dog by label controller



To switch the GO1 controller on, locate the power button and perform 1 short press followed by 1 long press. A beep will be heard when the controller is switched on. The same button press sequence applies when switching the controller off.



To switch off the GO1, ensure that the GO1 is in the "Prone" static state. Then, locate the power button on the GO1's battery pack and perform 1 short press followed by 1 long press.

Battery Charging

The GO1 battery has 4 LEDs acting as the battery level indicator:

- 1/4 LED of battery level indicator lit -> 0-25% battery level
- 2/4 LED of battery level indicator lit -> 25-50% battery level
- 3/4 LED of battery level indicator lit -> 50-75% battery level
- 4/4 LED of battery level indicator lit -> 75-100% battery level
- 0/4 LED of battery level indicator lit -> Charging complete

Please charge the battery as soon as it falls to the 25% level (1/4 LED of battery level indicator lit)

To charge battery, please remove battery from GO1 and mount it onto the battery charger. Charging

duration is approximately 1.5 hours.



To charge remote control, connect it to the Battery Charger via USB-C type cable. Charging duration is approximately 1.5 hours



To charge Label controller, connect it to the Battery Charger via USB-C type cable. Charging duration is approximately 1.5 hours



GO1 Basic Operation with Handheld Devices

Here is an introduction to the use of the go1 remote

1) power on the robot, then waiting 1min it will stand up by itself and the light band on the robot's head will flash. This means that you can control the robot dog through the remote control or label

2) Start ->unlocked and inattitude control

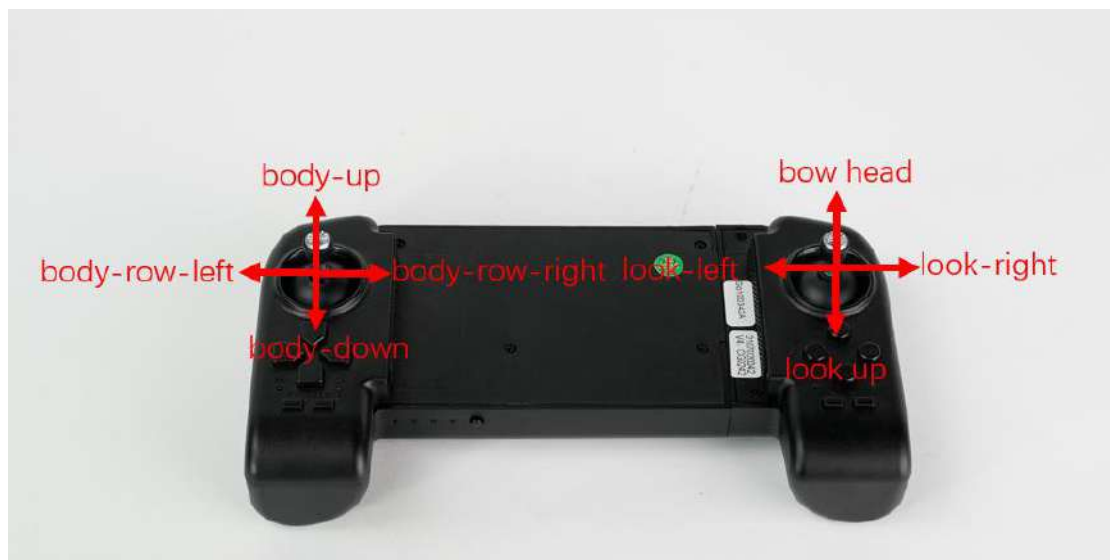
3) Start again -> enter walk control In this case, the robot can be controlled only by pushing the rocker. If the handheld is not pushed, it will stand in place

4) Start twice ->enter fast run control In this case, the robot will step all the time without pushing the handheld

5)L2+A->the robot is locked, and the robot dog can switch between standing and lying down postures through multiple operations. If you want to take away the robot, you need to press L2+A in advance to lock the robot and take it away. When standing, you can press start to unlock

6)L2+B-> damping state/low power state, In this state, the robot dog will get down, you need to use L2+A to make him stand up

Schematic diagram of pose control:



Schematic diagram of walking control



Remarks:

When using the robot to move, first push the joystick slightly, and increase the speed after you are familiar with the robot operation.

The current version of the robot dog only supports the above functions for the time being, and Unitee Technology will update related functions in the future, and update it for you as soon as possible

GO1 Basic Operation with Label controller

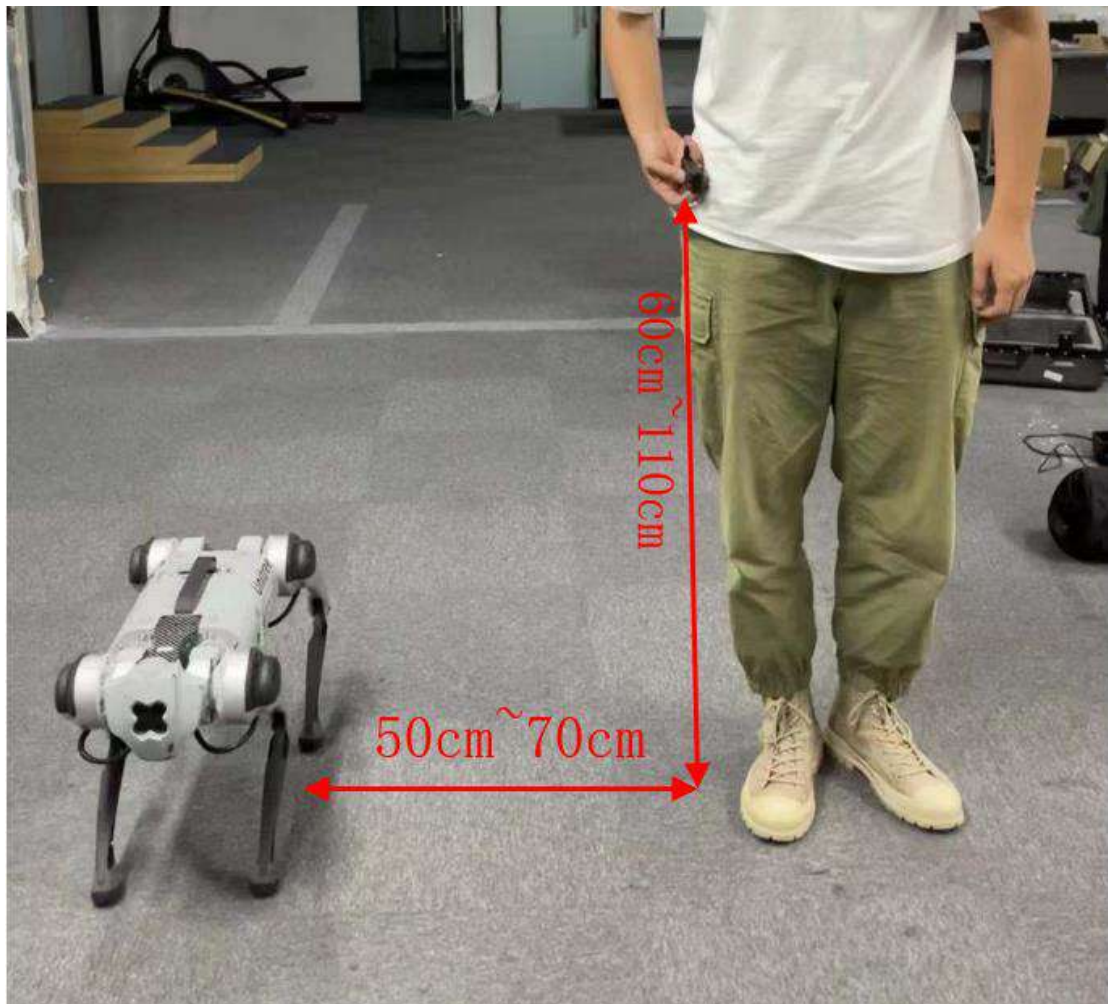
Here is an introduction to the use of the label controller

1) power on the robot, then waiting 1min it will stand up by itself and the light band on the robot's head will flash. This means that you can control the robot dog through the remote control or label

2)POW -> Short press once, then long press for 2 seconds to turn on and off the remote control

Remarks:

The label should be turned on in a fixed position before powering on.As shown below



Buckle the remote control to the waist belt on the right side of the human body. The human body is standing on the left side of the robot, with the torso facing the same as the robot. Short press and long press the POW button that automatically follows the remote control, when the indicator lights up steadily,

the opening is completed. The vertical distance between the label and the ground is 60~110cm, and the horizontal distance between the label and the robot dog is 50~70cm.

3) mod -> Short press the MOD key to switch the following three modes: Mode1-Mode2-Mode3-Mode1

- Mode1: Joystick mode, you can control the robot movement through the joystick
- Mode2: Slow auto follow mode, maximum speed 1.5m/s
- Mode3: Fast auto-following mode, maximum speed 3.0m/s

4) POW+'+'-> the robot is locked, and the robot dog can switch between standing and lying down postures through multiple operations. If you want to take away the robot, you need to press L2+A in advance to lock the robot and take it away. When standing, you can press MOD to unlock

Schematic diagram of Mode1

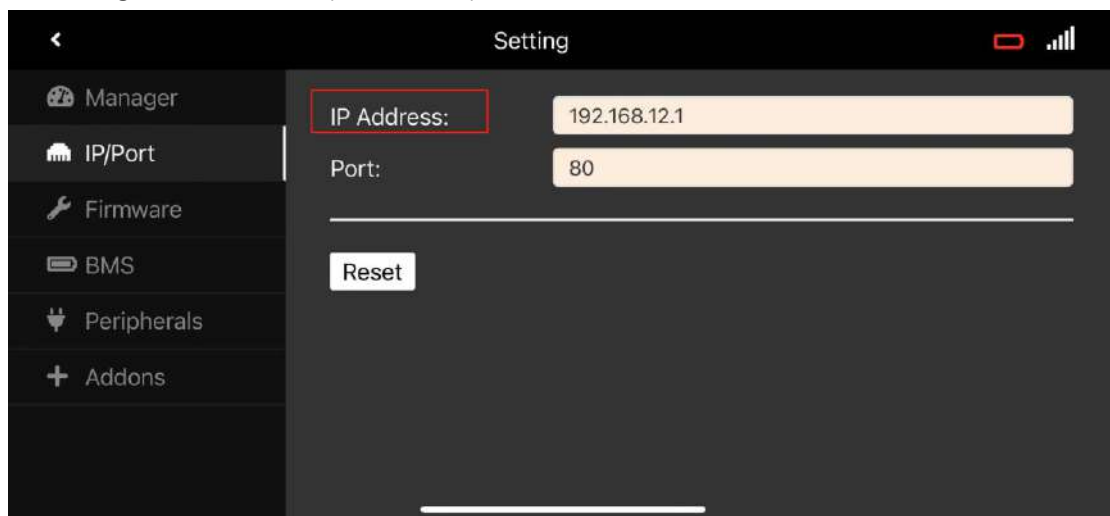


Setting and using Unitree App on Tablet/Phone

- 1、 Download and install the app from <https://www.unitree.com/app/>
- 2、 Connect to the GO1 via WiFi - UnitreeRoboticsGO1-XXX, with the following network configuration:
Password:00000000
- 3、 Open the app. Click on the in-app settings (top right of screen)



- 4、 Change the IP address to (192.168.12.1)



- 5、 Quit to home and your mobile device is now properly configured to use the following functions
- 6、 Tap vision on the screen to use the vision function

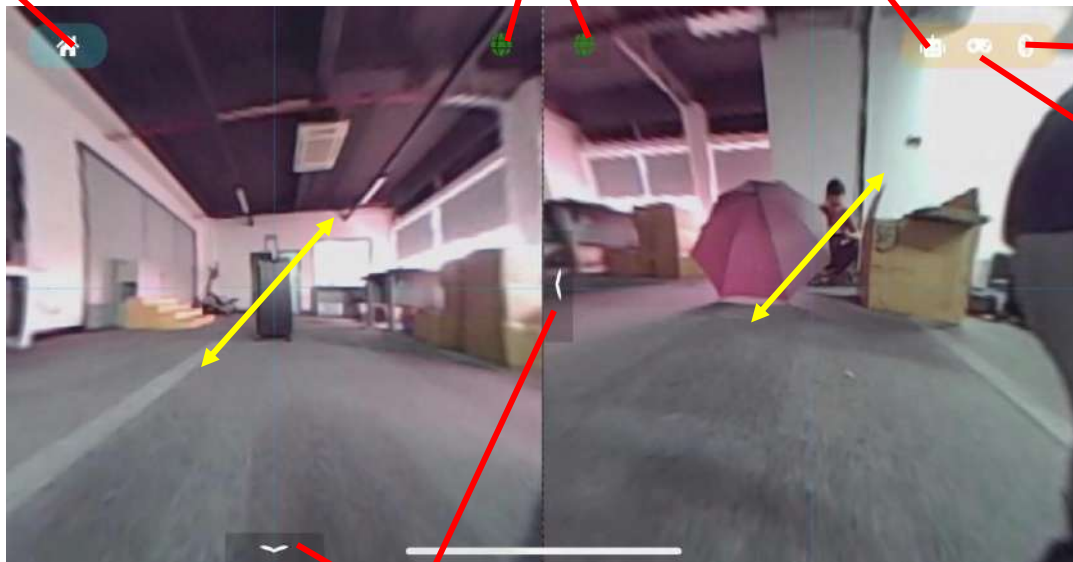


You will see the following interface:

Back to home

Change to AI

System management interface

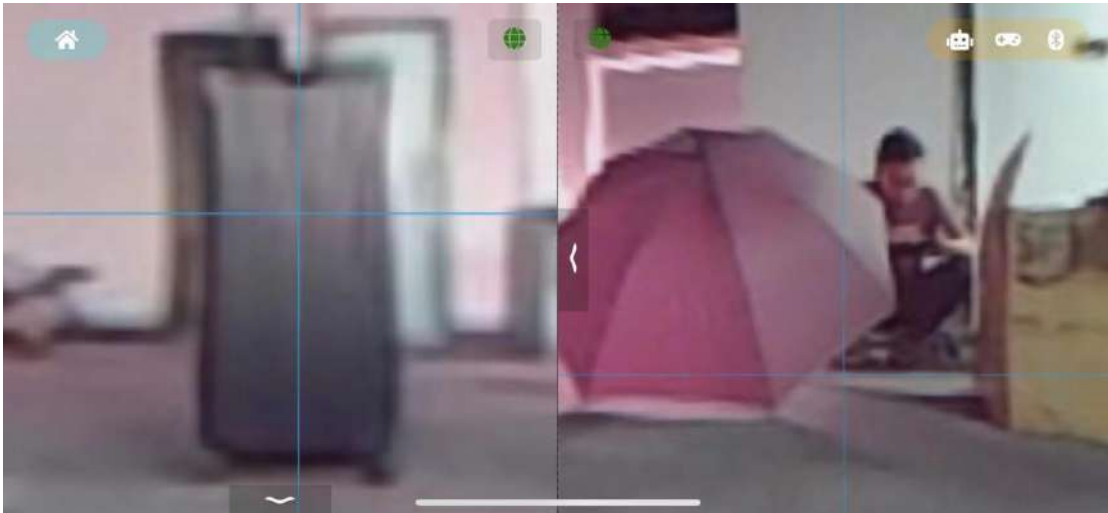


BLE Gamepad

Virtual joystick

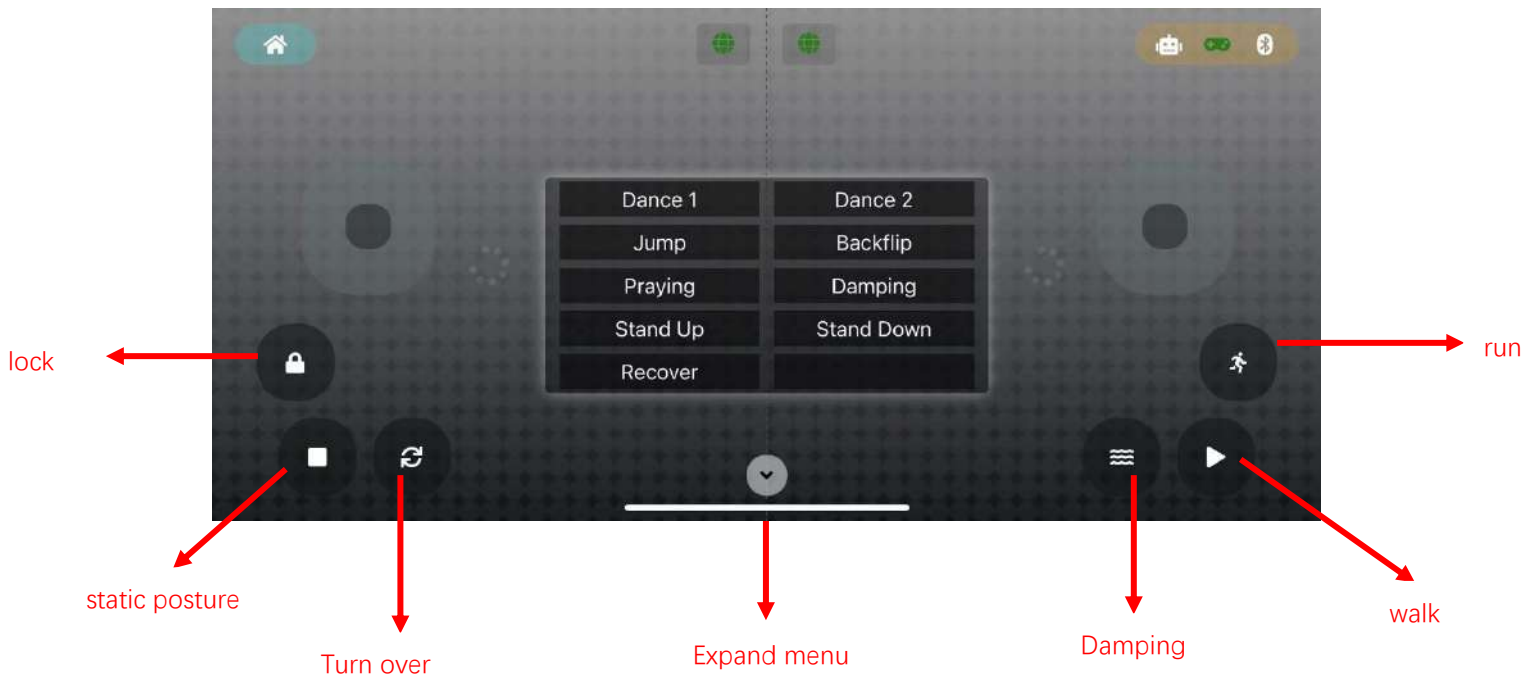
Change lens

If you slide your two fingers in the direction in the picture, you can enlarge the image, as shown below:



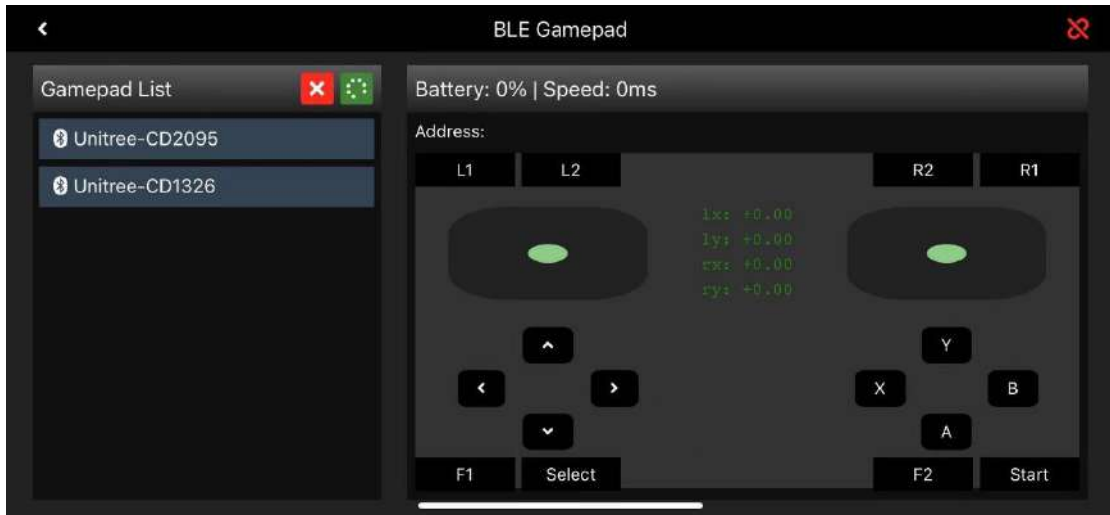
Note: Each camera screen is a real-time screen with adjustable viewing angle by default. AI portrait recognition only supports 1 screen at the same time. Therefore, after clicking AI switch, the corresponding camera screen will switch to AI screen, and if there are other camera AI screens before, The screen will switch back to the real-time screen with adjustable viewing angle

7、 Virtual joystick



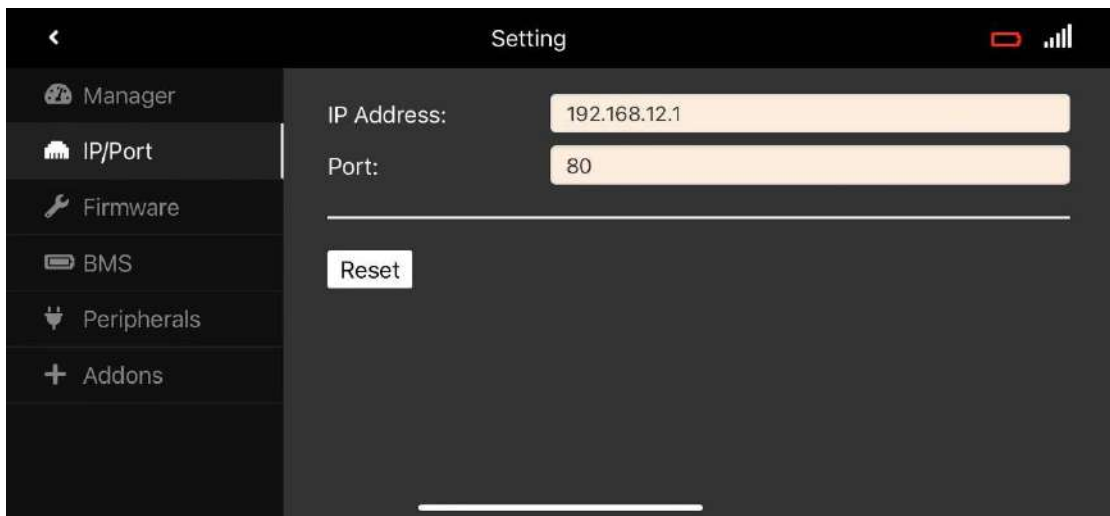
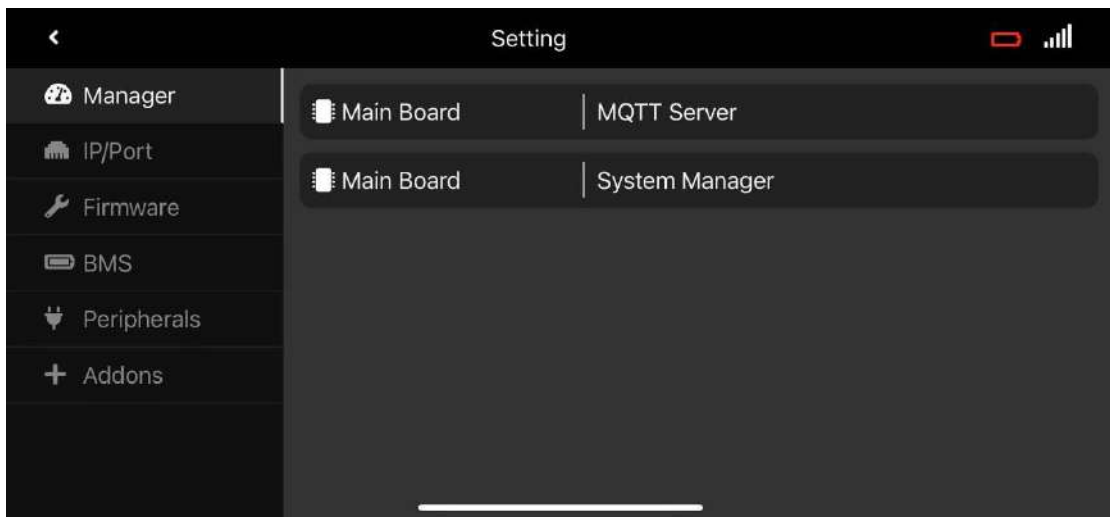
The robot dog can be remotely controlled through this interface (not yet open)

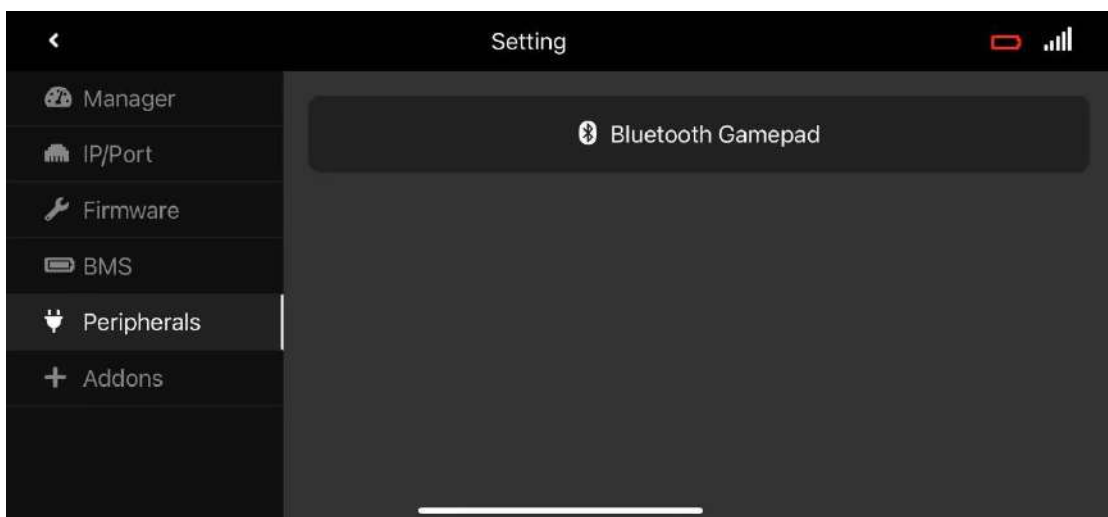
8、 BLE Gamepad

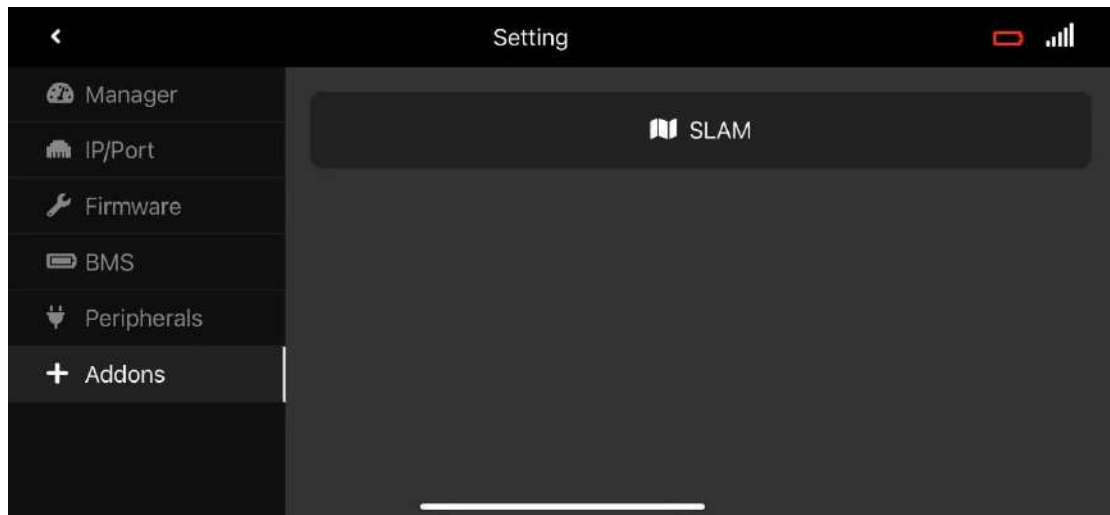


This interface can be connected to the remote control to determine whether the remote control is damaged

9、 System management interface







The SLAM function is still under development, please look forward to it

