1、APP control robot

Install APP on your phone

For Android system users, open your mobile browser, scan the QR code below, and download and install the [MakerControl] APP.

IOS system users, please open the App store and search for [MakerControl], or open the code scanner, scan the QR code below, and download and install the [MakerControl] APP.

If the latest version of [MakerControl] APP is already installed on your phone, you do not need to install it again.

Start ROSMASTER robot

The U disk (Jetson nano4GB version)/TF card (Raspberry Pi version)/SSD (Jetson Xavier NX or TX2NX version) provided in the delivery list has already written the image system file of the car. The user installs the U disk/TF card/SSD to ROSMASTER. Then, turn on the power switch of the ROSMASER robot, you can hear the buzzer whistle 3 times in about 2-3 minutes, indicating that the system starts normally, and you can see the information displayed by the OLED at this time.

Raspberry Pi version system, username: pi password: yahboom
Jetson nano 4GB version system, username: jetson password: yahboom
Jetson TX2 NX version system, username: jetson password: yahboom
Jetson Xavier NX version system, username: jetson password: yahboom

Connect ROSMASTER

After ROSMASTER is successfully started, it will automatically emit a hot signal [ROSMASTER]. Connect your phone to this WIFI hotspot with password 12345678. In this way, a local area network is formed between the car and the mobile phone.

2. Fill in the IP address displayed by the OLED on the robot, as shown below. Port and Video use default parameters. Click [Connect], after the connection is successful, it will automatically jump to the main control interface.

APP function introduction

The main interface of ROSMASTER APP is divided into four parts.

1. Remote control

Click the [Remote control] icon, you can see the following interface.

Part 1. Left area: The scroll bar can adjust the straight-line speed and turn speed of the robot. The button can control the robot to move forward, back, move left, move right and stop.

Part 2. Top right area: The first option can switch the front camera, the second option can switch the rear camera, and the third option is to switch the full screen display.

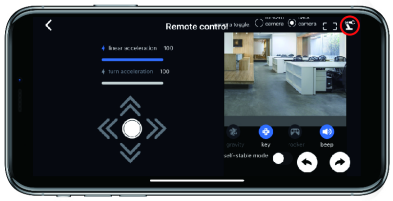
Part 3. Middle right area: This is the camera display screen, users can see the camera screen of ROSMASTER, the screen supports zoom in/out, and the upper left corner of the screen displays the frame rate of the current camera.

Part 4. Bottom right area: users can choose three control methods: gravity sensing control, button control, joystick control.
The last button is pressed to control the buzzer to whistle, release to turn off the buzzer.

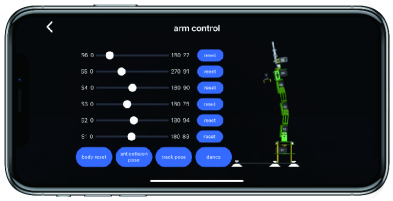
Part 5. Self-stabilizing mode: When the self-stable mode is turned on, the car will brake to stop immediately after receiving the stop command.
When the self-stable mode is turned off, the car will stop after coasting for a while after receiving the stop command.

Part 6. Bottom right area: Two buttons control the robot to rotate left and right.

2. Control robotic arm



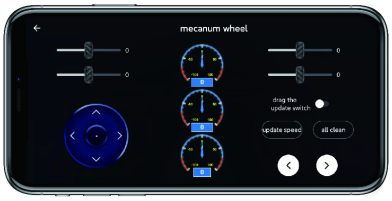
Select the icon of the robotic arm on the remote control interface, we can enter robotic arm control interface



Users can individually control the six servos of the robotic arm through the sliding rod and the center button, and there are different states of the robotic arm posture for choice.

3. Mecanum wheel

Click the [Mecanum wheel] icon, you can see the following interface.

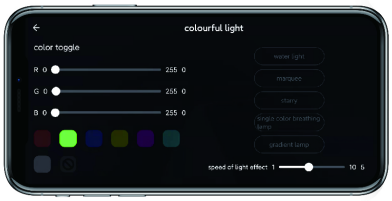


The four scroll bars represent the four wheels of the robot, and when it is in the middle, the wheels stop. When you swipe it to the left, the wheel reverses. When you swipe it to the right, the wheel forward.
After moving the scroll bar, select [update speed], the wheel of the robot will turn.
Open the [drag the update switch], when we move the scroll bar, the wheel of the robot will rotate in real time and change the speed. Click [all clean], the robot stop.
Tip: Before testing this function, we can keep the wheels of the robot away from the ground or desktop to prevent the robot from breaking. Bottom left and bottom right buttons be used to control the robot movements directly.

Middle dial (from top to bottom):
1. X: Speed in X-axis direction; 2. Y: Speed in Y-axis direction; 3. Z: Speed in Z-axis direction.

4. Colorful light

Click the [Colorful light] icon, you can see the following interface.



The colorful light are divided into three parts.

Part 1. Upper left area: When we directly drag the [R] [G] [B] scroll bar, we can see that the RGB light bar at the rear of the robot will be changed t in real time.

Part 2. Lower left area: This function can make the RGB light bar display red, green, blue, yellow, purple, cyan, white and off. Users can also adjust the color of the breathing light.

Part 3. Right area: After pressing a button, the RGB lights will show the corresponding special effects, click the button again to exit the special effect. The scroll bar below can change the speed of the lighting effects, the default is 5, the fastest is 1, and the slowest is 10.

5. Use guide

In order to prevent some functions from not working properly due to the deviation of the center position of the robot arm. Before using it, we need to calibrate the robotic arm.

Press the [middle] button to judge whether the mechanical arm is vertically upward, left and right return to the center, and the mechanical claw is in a gripping state.

After clicking [calibrate], it will enter the state of calibrating the robotic arm, please check whether the robotic arm is upright, and whether the left and right centering is normal. The indicator ring changes from black to green, indicating that the setting is successful, click [back].