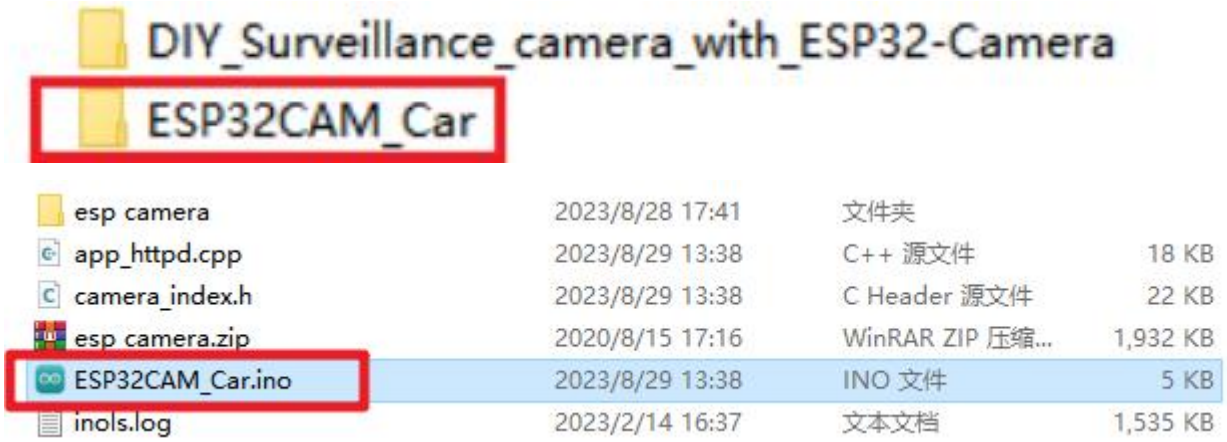
Camera + remote control mobile function

1.1 Description

In this project, we will use the ESP32-camera module combined with the motor driver board L298N to realize the WiFi remote control function . The ESP32 camera module will be hosted on a web server, where we can watch the surveillance in real time while controlling the movement of the car through the buttons .

1.2 Burn code

Open the code file (path: 2_Arduino_Code/ESP32CAM_Car)

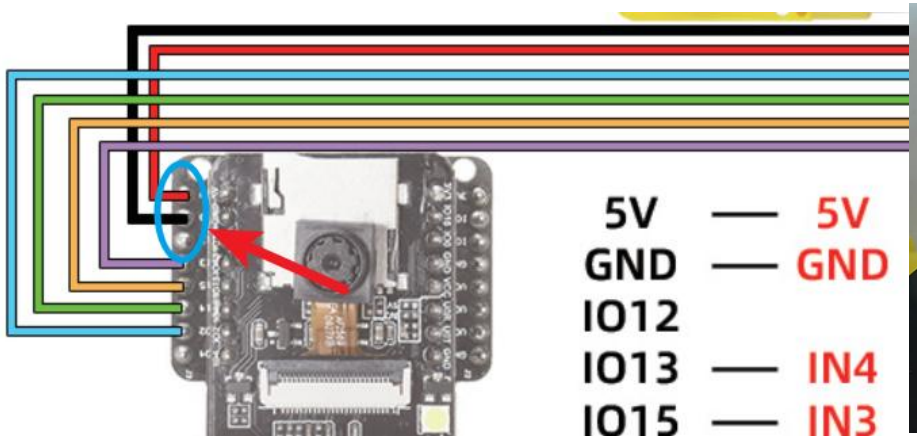


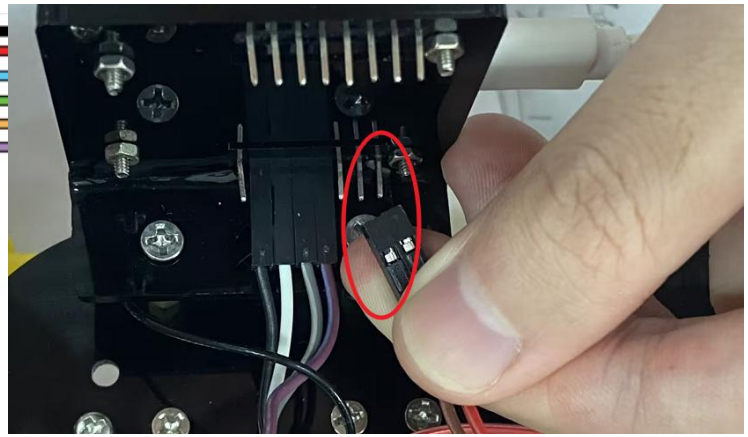
Note: Before uploading the code, you also need to make some changes. Change "XXX" in the figure below to your own WiFi name and password :

```
20  #define CAMERA_MODEL_AI_THINKER
21
22  const char* ssid = "XXX";     //Enter SSID WIFI Name
23  const char* password = "XXXXXX";    //Enter WIFI Password
```

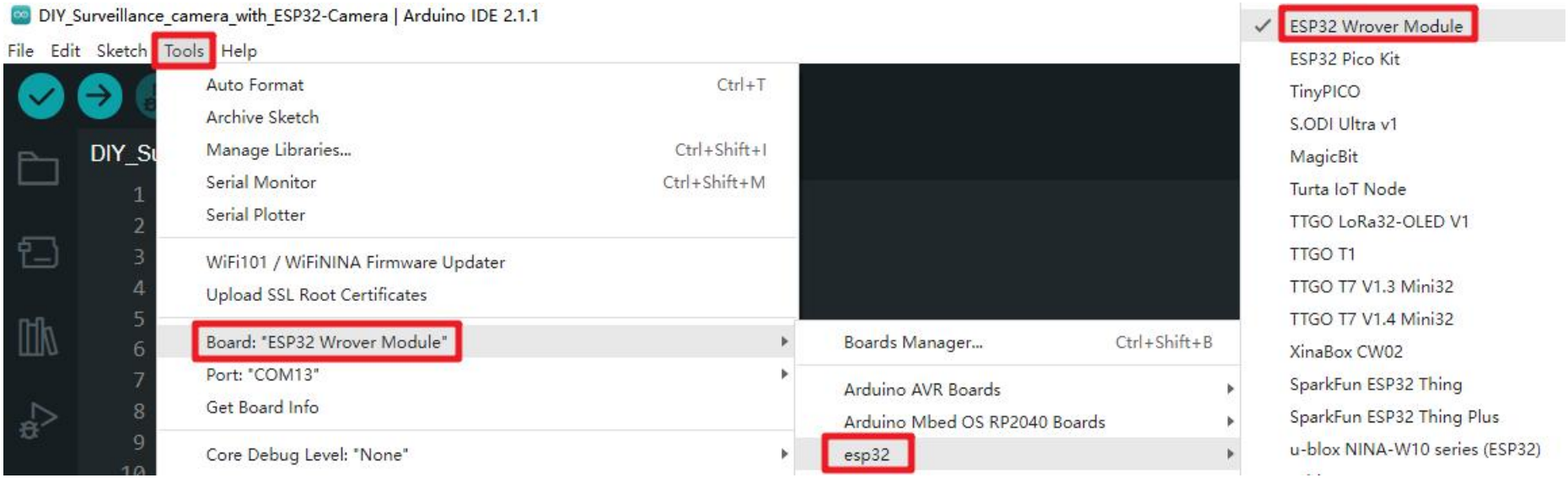
You should check that the WiFi you want to connect to is 2.4G instead of 5G, otherwise the function will not work!

Confirm again that the 5V and GND wires connected to the expansion board are unplugged first, otherwise it will affect the code burning

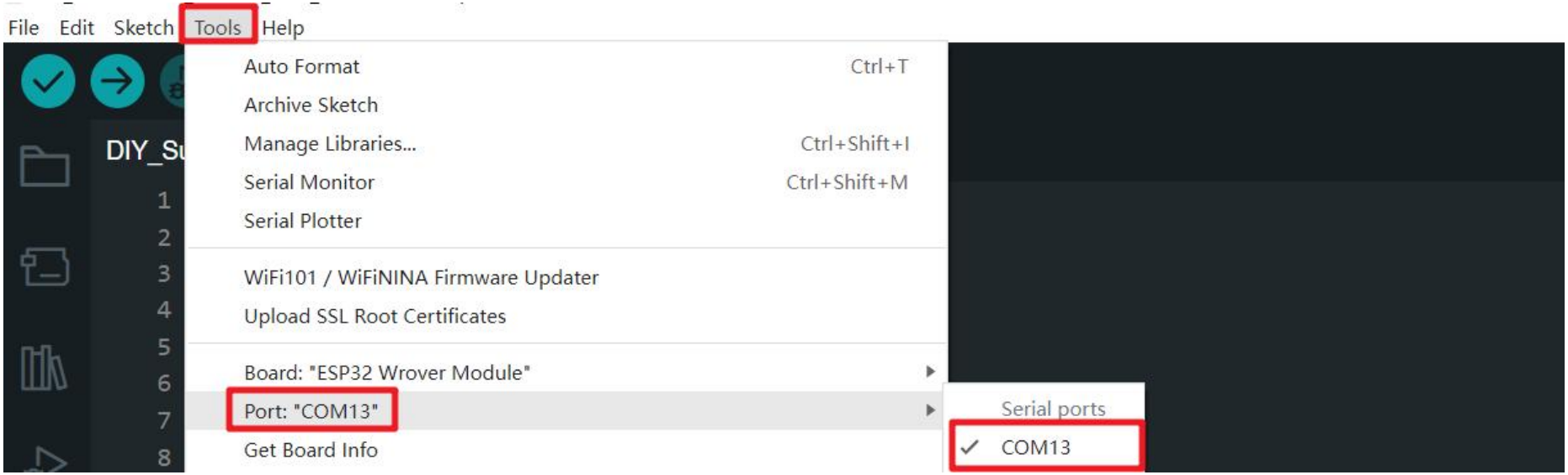




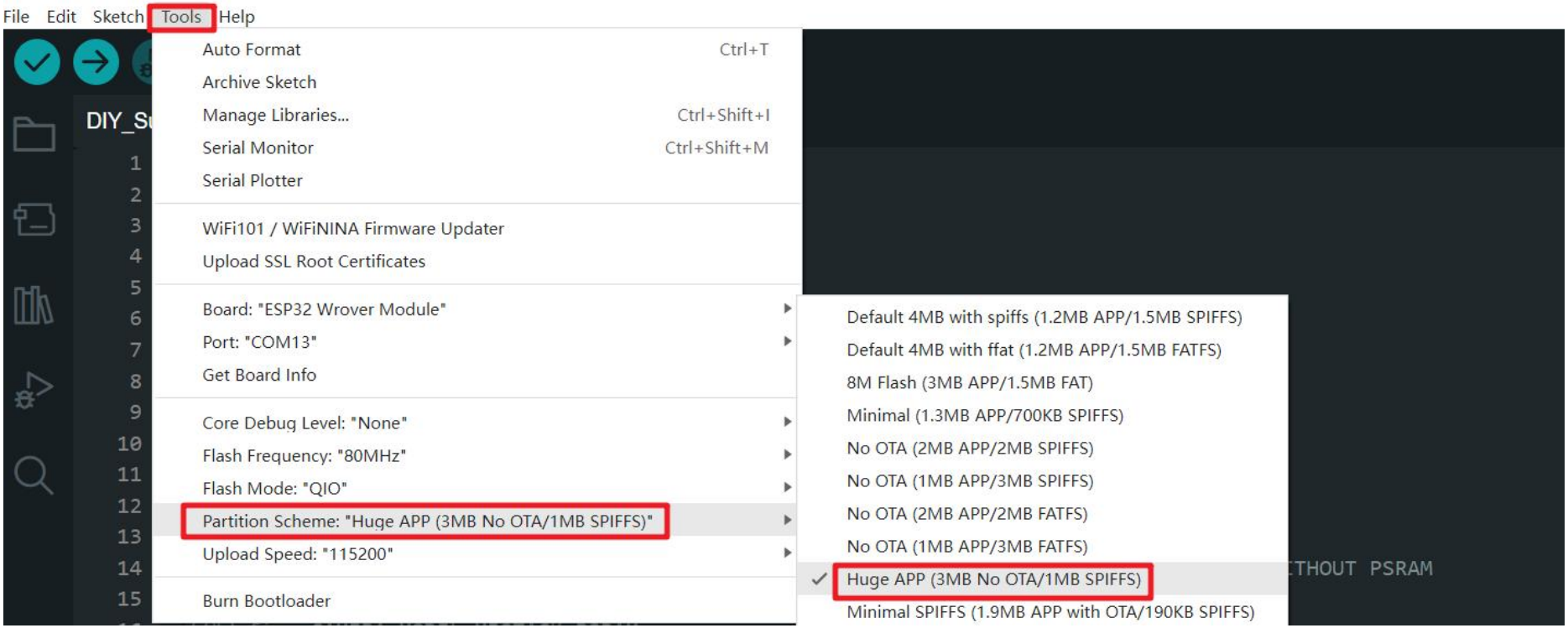
Now, connect the ESP32-CAM development board to the computer through the expansion board type-C port . Go to Tools > Board > ESP32 Arduino in Arduino IDE , select ESP32 Wrover Module.



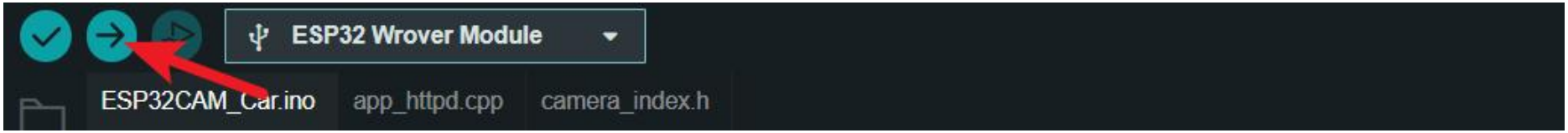
Go to Tools > Port , select the COM port that ESP32 is connected to (the COM number that everyone can choose is not necessarily the same, you may be other)



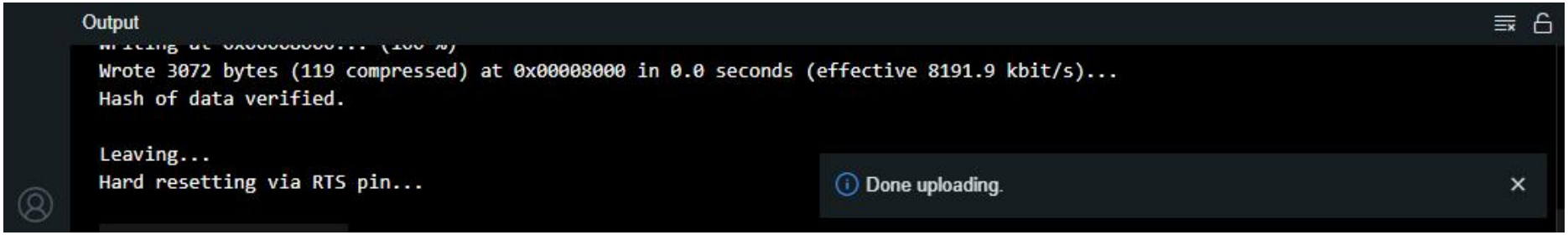
In Tools > Partition Scheme , select " Huge APP (3MB or OTA)"



Click the "Upload" button to burn the code (if the burning fails, please check whether the serial port is correct)



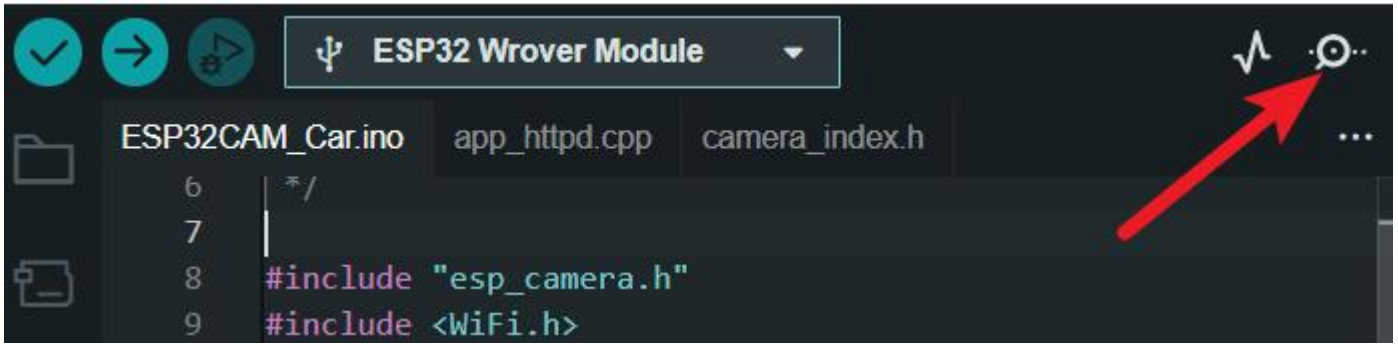
After the upload is successful, it prompts "Done uploading".

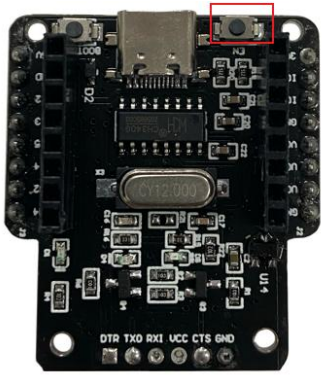


1.3 View IP address

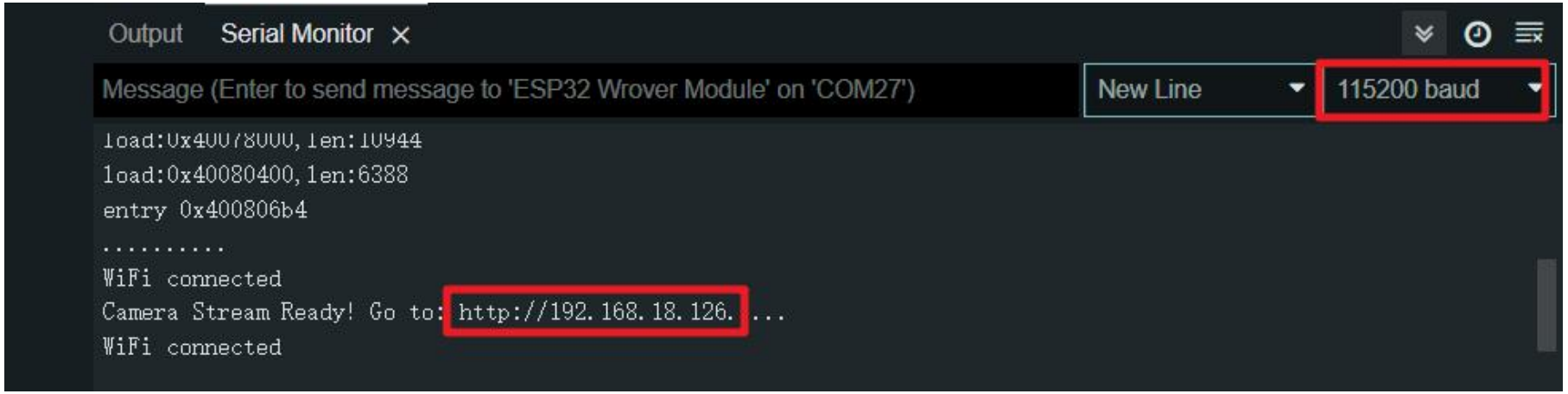
Once the code is successfully uploaded, the ESP32-CAM will reset.

upper right serial monitor with a baud rate of 115200 , and press the reset button on the ESP32-CAM expansion board .





When ESP32-CAM successfully connects to WiFi, you can see the http address. Everyone gets the same address, here is "192.168.18.126", please remember it.

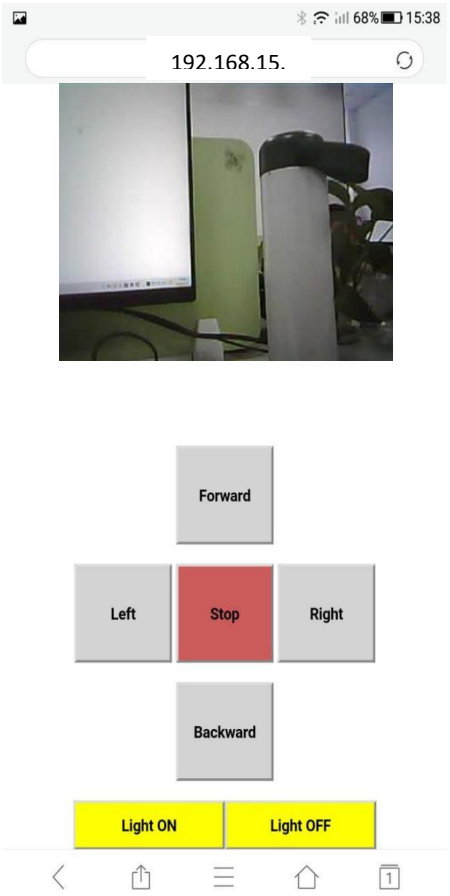


1.4 Check the camera screen

Open a browser with a device connected to the WiFi of the same LAN, enter the IP address into the address bar and run Jump.

You will see the camera screen, which is the screen that includes the functions of the remote control buttons.

After the code is burned successfully, reconnect the two wires that were unplugged before, so that the motor can be controlled. Please note that the connection cannot be wrong .



FAQ:

When you can't see the screen:

1. Please check whether the WiFi name and password have been modified correctly;

2.Whether the WiFi is at 2.4G, and the signal is good;

3. Reset ESP32 CAM to ensure stable power supply;

4. Do not press the reset button RST or EN by mistake.