The configuration of ROS WiFi camera module in the car

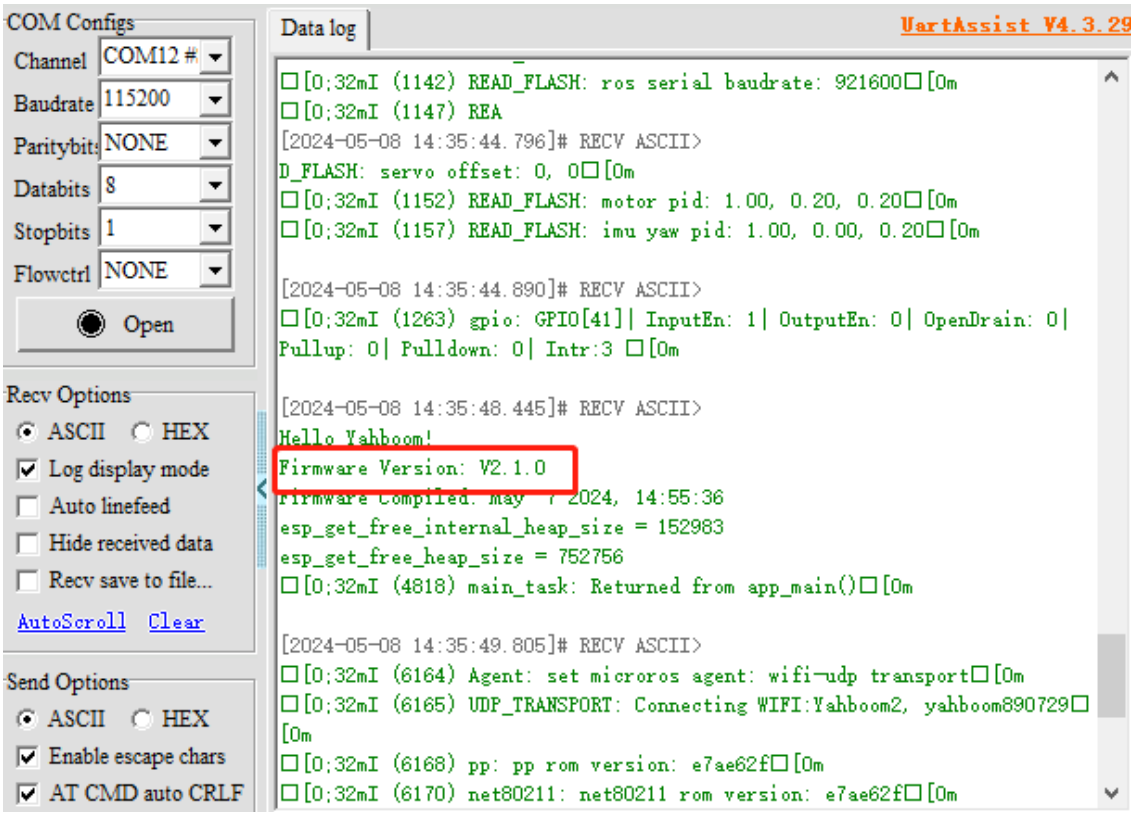
1. matters needing attention（Must see)

notice:

1. If the micro car is burning firmware of version **V2.1.0 or above**, you can directly refer to the **0 and Quick Start Tutorial (mandatory)**, and configure the wifi and ROS agent to be connected，**The ROS WiFi camera module will also obtain the information to be connected based on the relevant py files。**
2. **The default mode for WiFi cameras is STA+AP mode at the factory. If the mode is not specially designed, it generally does not need to be set**
   If the mode of the wifi camera has been changed, it needs to be changed to **STA+AP mode** or **STA mode**.How to change?Tutorial on **Serial Port Configuration WiFi Instructions**
3. **This tutorial is aimed at configuring wifi cameras or firmware that is not V2.1.0**

2. View the firmware version of the microROS board

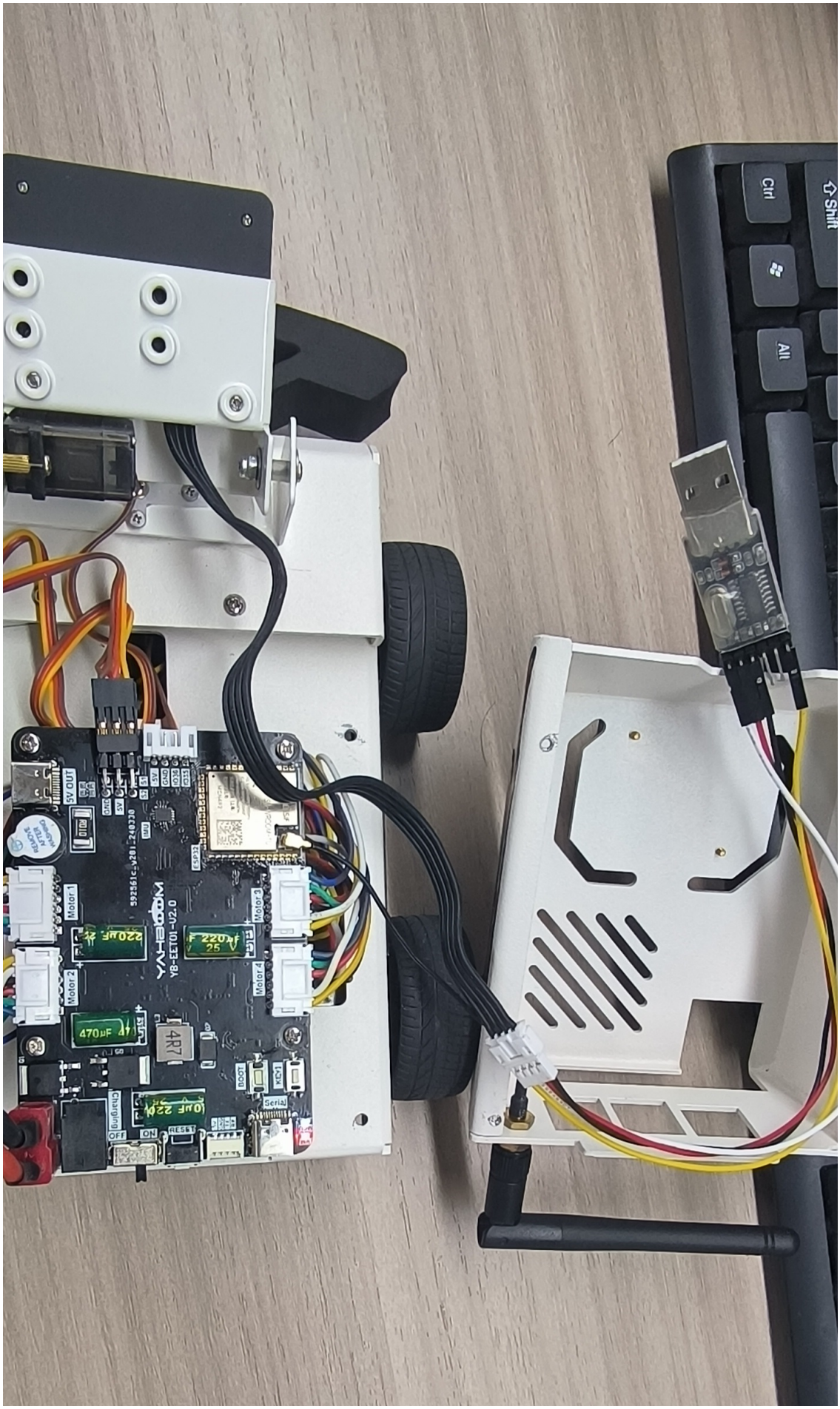
1. Connect a TYPE-C cable to the microROS board, open the serial port assistant, set the baud rate to 115200, and press the car reset button to see the firmware version of the microROS car.



3.CH340 serial port configuration ROS WiFi camera module

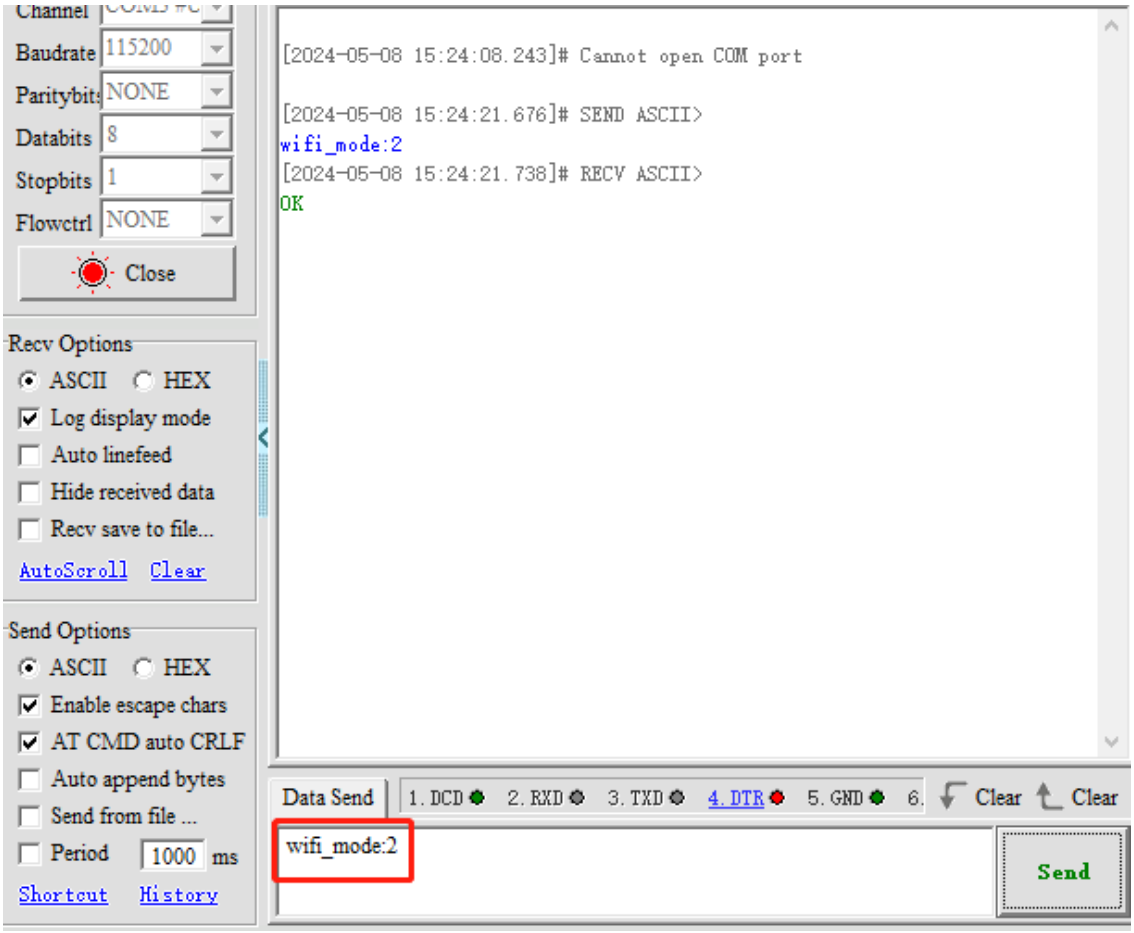
CH340 serial port configuration ROS WiFi camera module ROS2 proxy and wifi information

1. Disassemble the upper board of the car and connect the CH340 module, as shown in the following figure



2. Then connect the CH340 module to the computer and open the serial port assistant，setting**Baud rate:115200、No parity check, no hardware flow control, 1-bit stop bit**
3. Configure WiFi mode to **STA+AP** mode，As shown in the following figure，It can also be configured to STA mode，For specific parameter instructions, please refer to the tutorial on

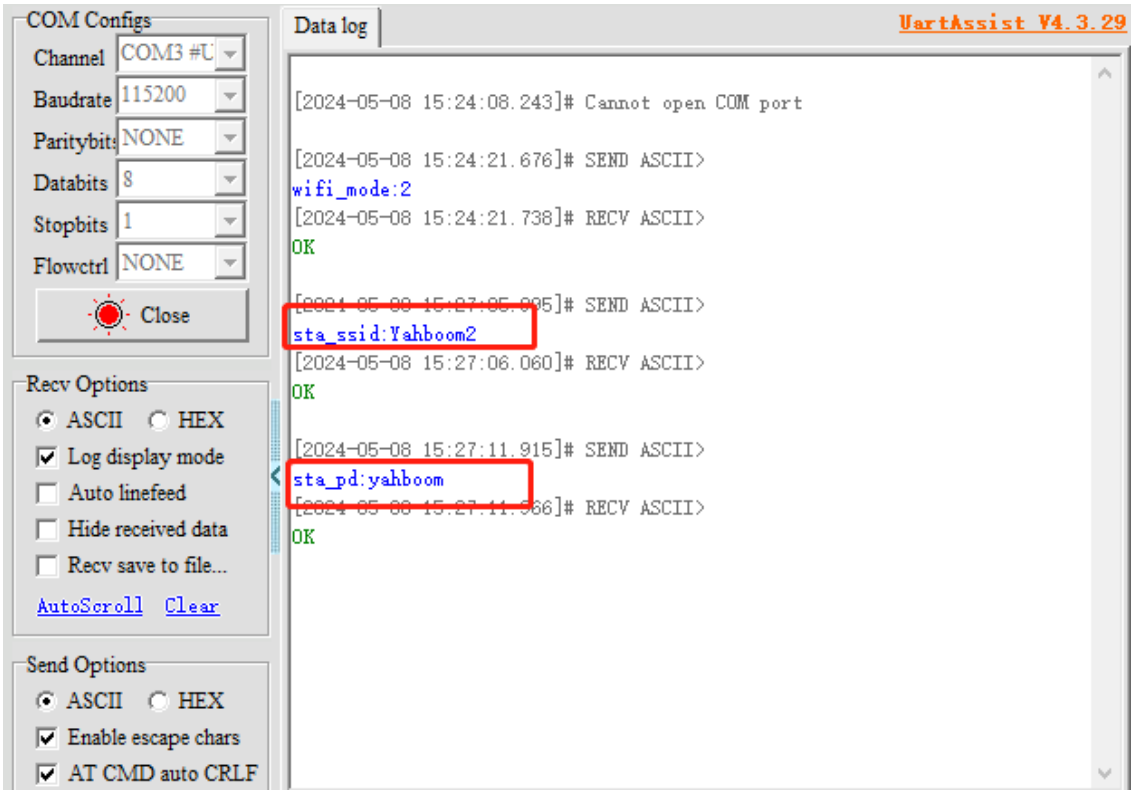
Serial Port Configuration WiFi Instructions



4. Send the WiFi name and password to connect to

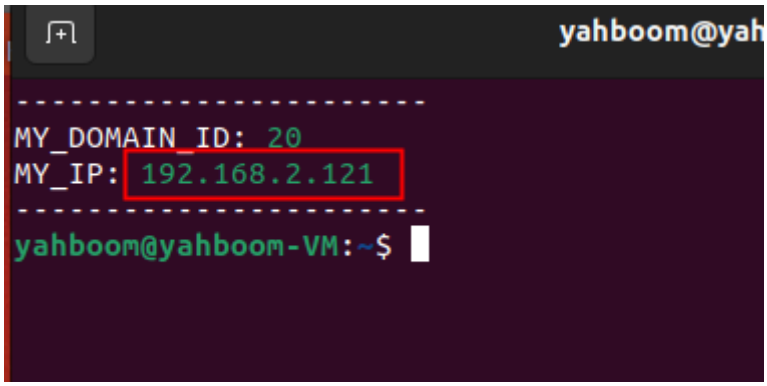
   Note: The WiFi name and password here are searchable WiFi for 2.4GHz channels and cannot be fictional.

   And the wifi connection of the microROS car should also be the same as that of the ROS WiFi camera module

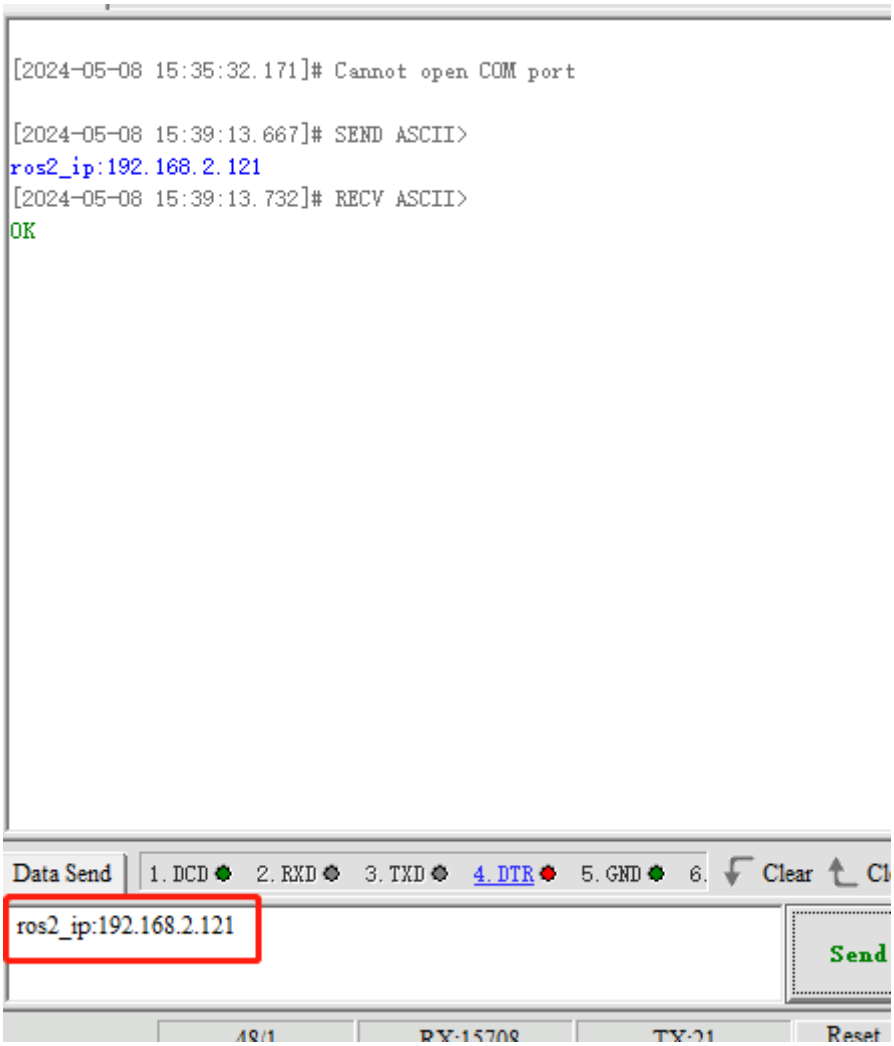


5. ROS2 proxy for sending connections

- To send the ROS2 proxy connection, it is necessary to find the IP address of the Linux system that connects to the ROS WiFi camera module (it must be connected to the same local area network as the ROS WiFi camera module and the car)
- For example, the IP address of a Linux system is 192.168.2.121

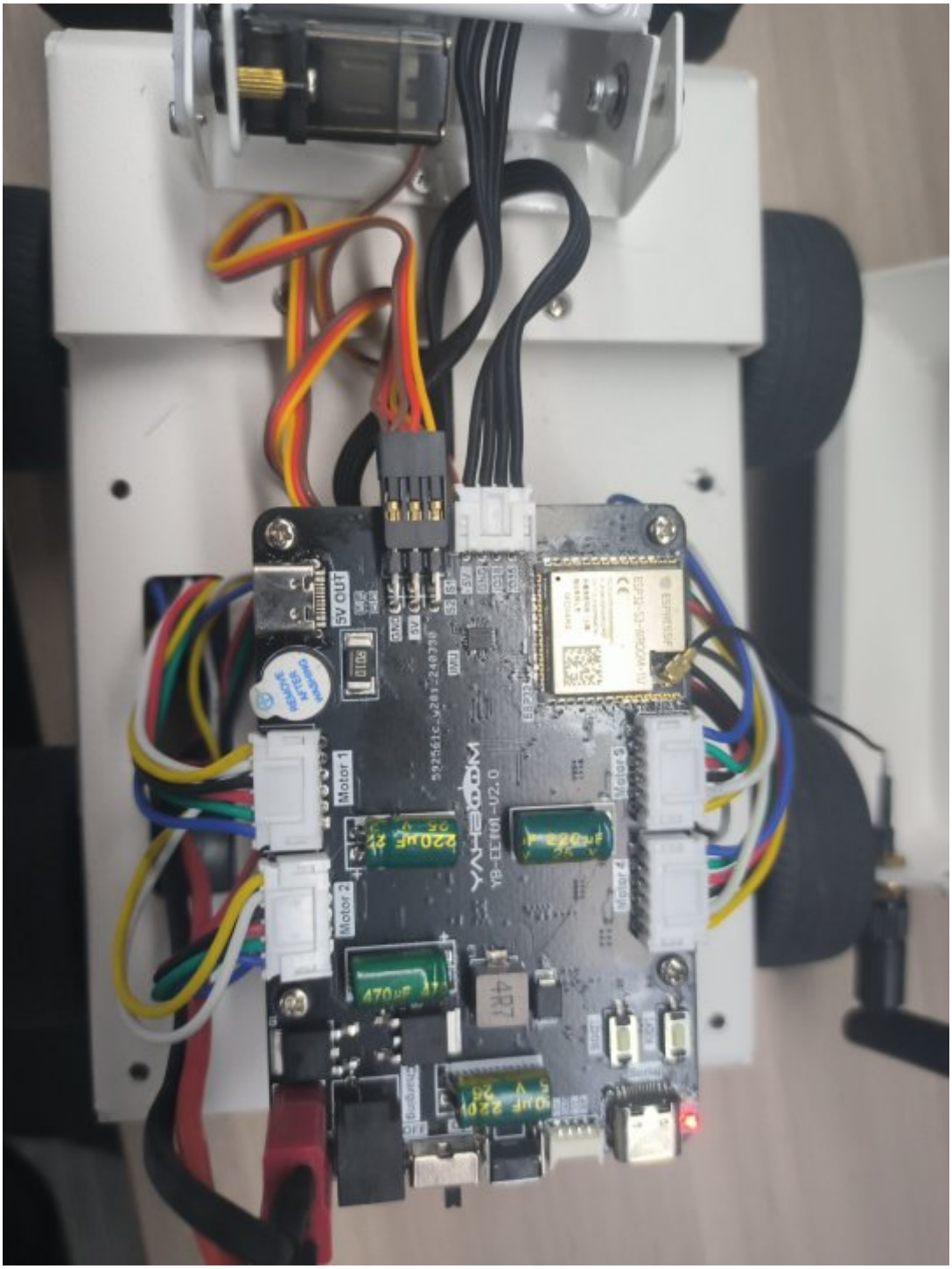


So the serial port configuration needs to be sent in this way



Note: When the IP address of the Linux system changes, it needs to be reconfigured from step 5

6. Install the wires of the configured ROS WiFi camera module back onto the car and install the upper cover.


5V OUT
Motor 1
Motor 2
Motor 3
Motor 4
YAHBOOM
YB-EXM1-V2.0
220uF
470uF