Use ROS-WiFi cam module(must read)

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1. Notes (must read)
2. Check the firmware version of the ESP32 communication board
3. CH340 serial port configuration ROS-wifi image transmission module

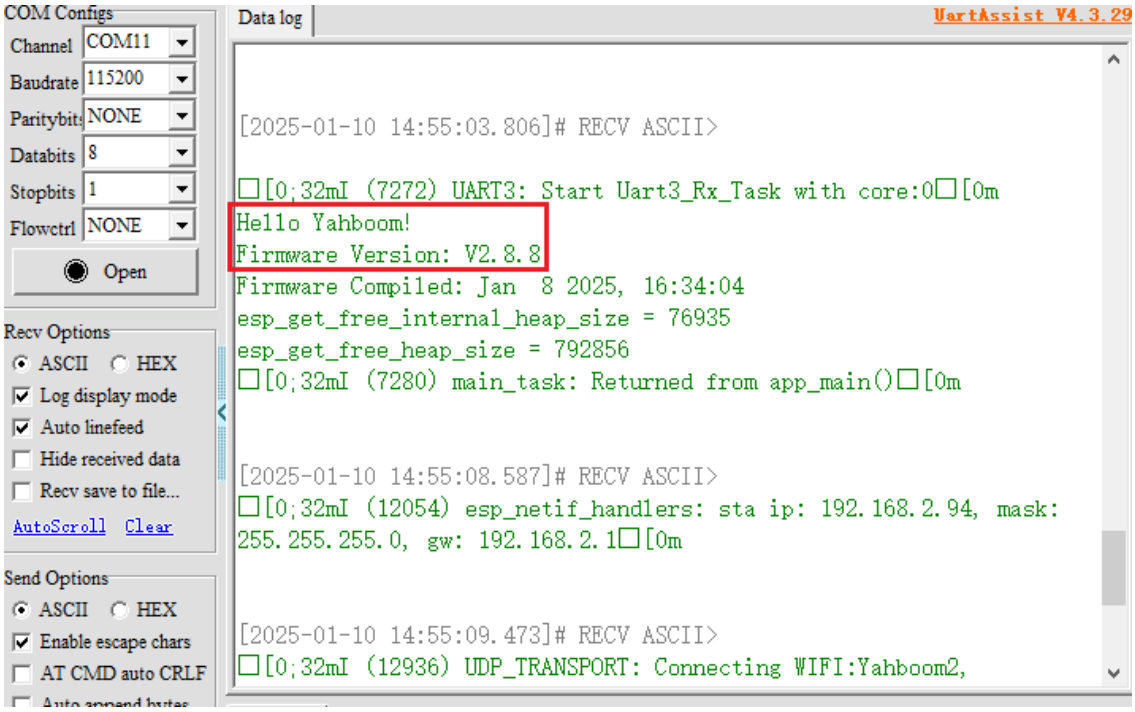
1. Notes (must read)

Note:

1. If the microROS balancing car is burned with **factory firmware**, you can directly read **0, Quick Start (Must Read) Tutorial**, configure the wifi and ros agent to be connected, and **ROS-wifi image transmission module will also obtain the information to be connected according to the relevant py files**.
2. **The default mode of the wifi camera is STA+AP mode. If you don't design the mode specifically, you generally don't need to set it**
   If the mode of the wifi camera has changed, you need to change the mode to **STA+AP mode** or **STA mode**. For how to change it, see the tutorial **Serial Port Configuration WiFi Instructions**.
3. **This tutorial is for wifi cameras that have been configured or non-factory firmware**

2. Check the firmware version of the ESP32 communication board

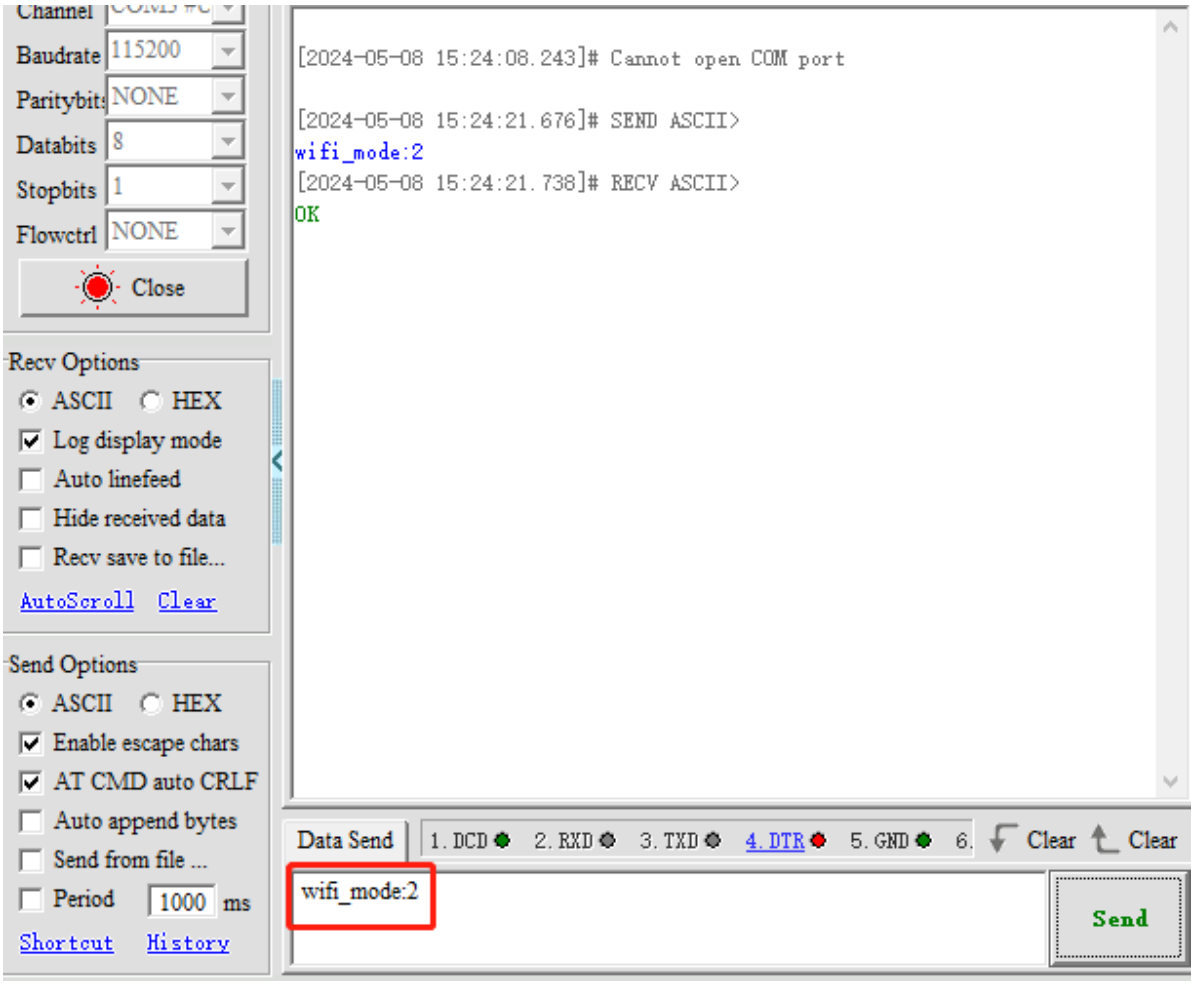
1. Use a TYPE-C cable to connect to the ESP32 communication board, open the serial port assistant, set the baud rate to 115200, and press the reset button of the ESP32 communication board to see the firmware version.



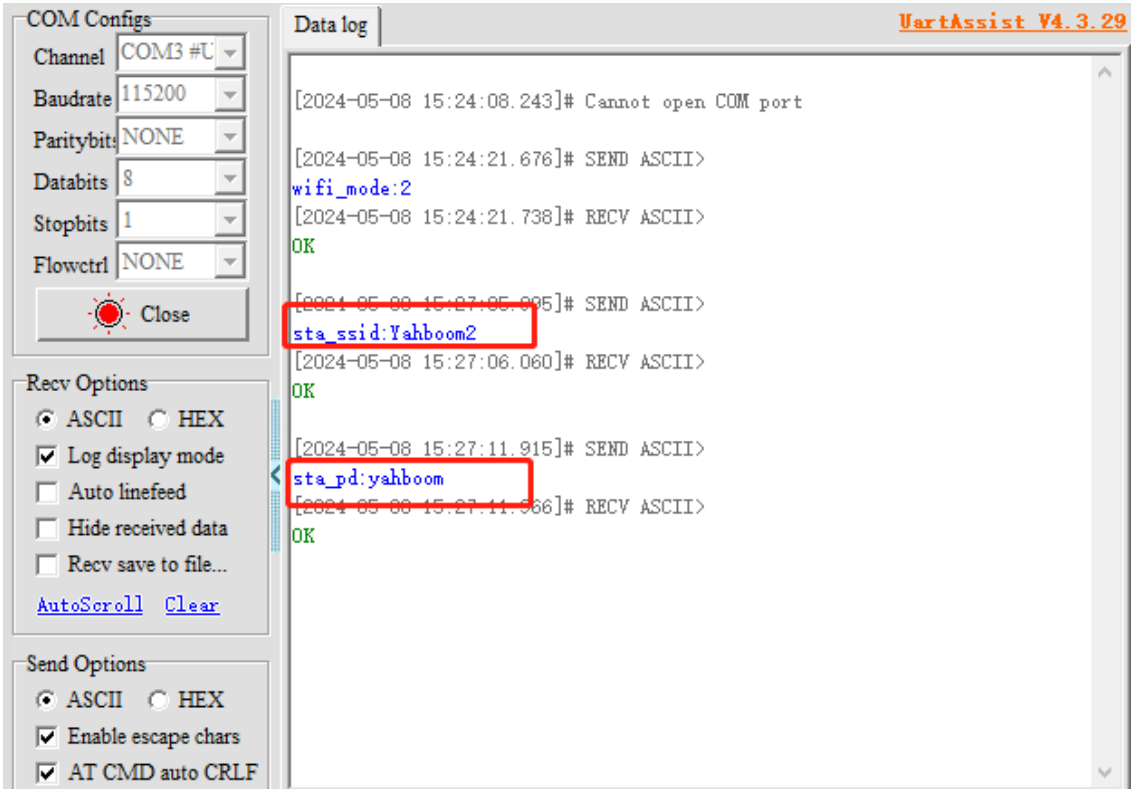
3. CH340 serial port configuration ROS-wifi image transmission module

CH340 serial port configuration ROS2 agent, wifi information of ROS-wifi image transmission module

1. Unplug the 4pin line of the image transmission module, and then connect the ch340 module,
2. Then connect the CH340 module to the computer, and open the serial port assistant, set **baud rate 115200, no parity check, no hardware flow control, 1 stop bit**
3. Configure the sending wifi mode to **STA+AP** mode, as shown below, or STA mode. For specific parameter descriptions, see the **Serial port configuration WiFi description** tutorial

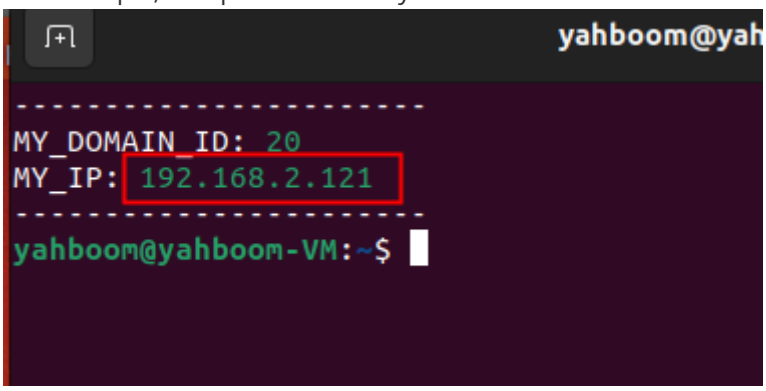


4. Send the wifi name and password you want to connect to
   Note: The wifi name and password here are wifis with a 2.4GHZ channel that can be searched, and cannot be fictitious.
   And the wifi connected to the microros balance car must be the same as the one connected to the ROS-wifi image transmission module

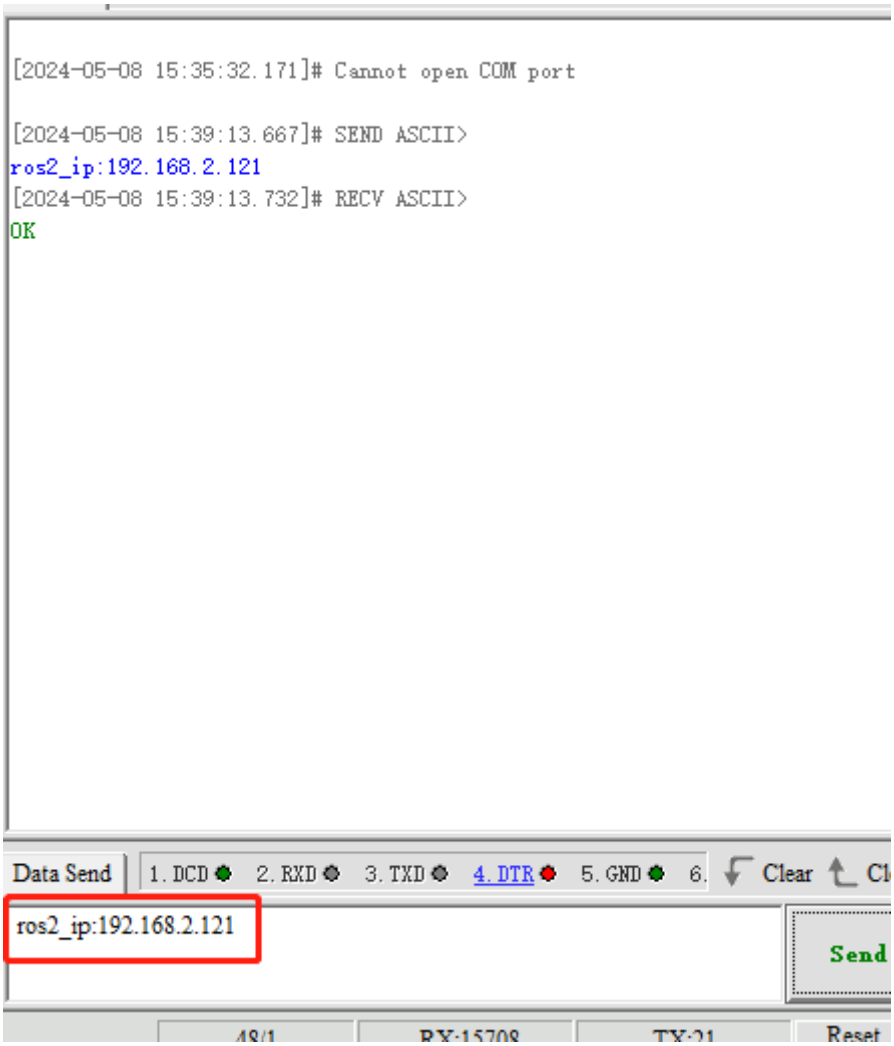


5. Send the connected ROS2 agent

- This is to find the ip address of the linux system connected to the ROS-wifi image transmission module (it must be the same LAN as the ROS-wifi image transmission module and the car)
- For example, the ip of the linux system is 192.168.2.121



Then the serial port configuration needs to be sent like this



Note: When the ip of the linux system changes, it needs to be reconfigured from step 5

6. Install the configured ROS-wifi image transmission module wires back to the STM32 control board