3. Walking speed adjustment

Quick use

1. DOGZILLA POWER UP

First of all, we switch on the switch power of the robot dog and start the robot dog


按下开关
Press the switch.

After startup, we can view the IP address on the robot dog's small screen.

## 2. Open shell to connect to DOGZILLA

Then use the ssh terminal to connect to robot dog.

Note: At the time of writing this tutorial, the IP address used is 192.168.2.102 and the username is pi and the password is yahboom, so the actual IP address will prevail.
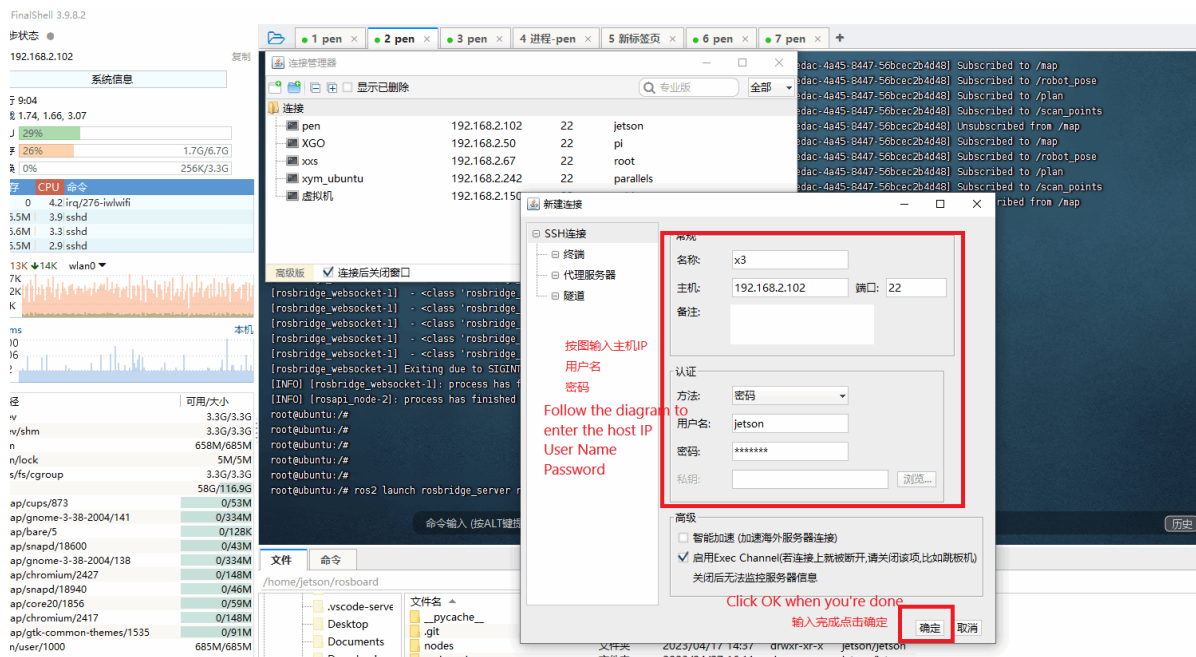
Open the shell utility, here I use FinalShell, enter the username, password, port, connection name and other information.
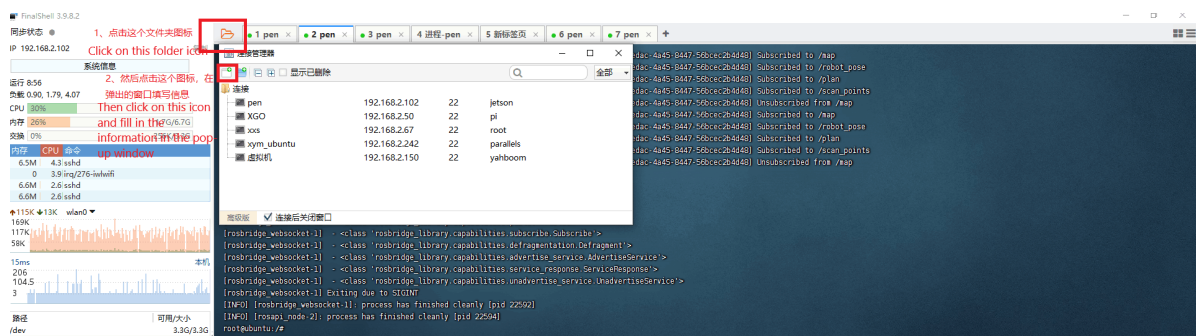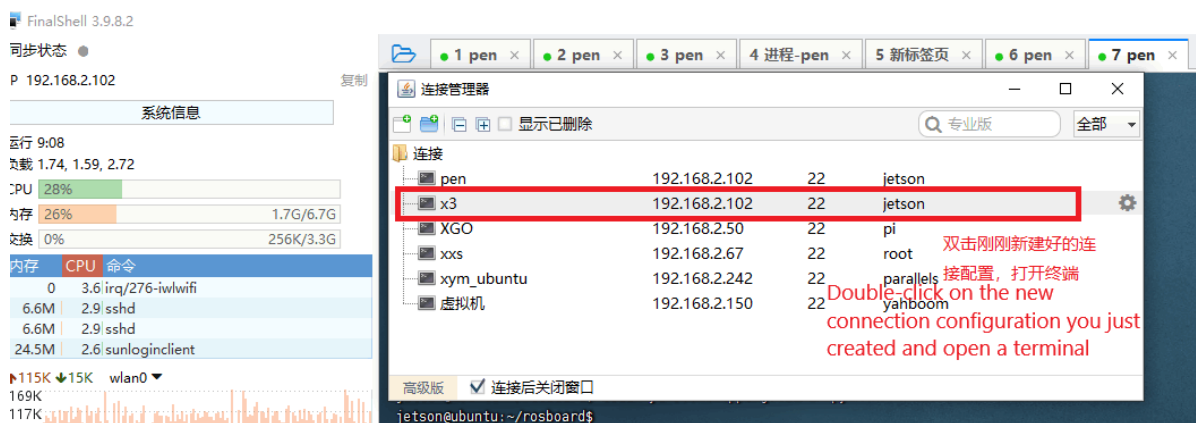
Select ssh connection to create a new ssh connection
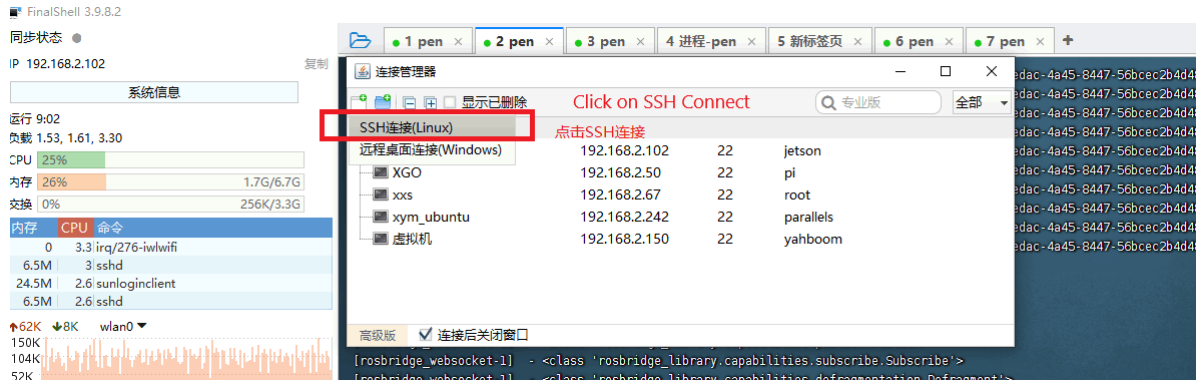
Here username fill in pi, password fill in yahboom, ip address fill in the real robot dog's IP address.

Here select the new ssh connection you just created.

3. Starting the DOGZILLA chassis

Start the chassis task by entering the command in the terminal.

```
sudo systemctl restart XgoStart.service
```

```
pi@yahboom:~$
pi@yahboom:~$
pi@yahboom:~$
pi@yahboom:~$
pi@yahboom:~$ sudo systemctl restart XgoStart.service
```

4. Start the robot dog Attitude Adjustment Node

Enter the following command in the terminal

```
cd cartographer_ws2/
```

```
source install/setup.bash
```

```
pi@yahboom:~$ cd cartographer_ws2/
pi@yahboom:~/cartographer_ws2$
pi@yahboom:~/cartographer_ws2$
pi@yahboom:~/cartographer_ws2$ source install/setup.bash
pi@yahboom:~/cartographer_ws2$
```

Then enter the following command

```
ros2 launch yahbboom_set_height yahboomSetHeghtLaunch.launch.py xGoHeight:=95
attitude_p:=0 move_x:=0 move_y:=0
```

Note: The parameter attitude_p is to set the leaning angle of the robot dog, a positive number is to lean down, a negative number is to lean up, the range is from -15 to 15. The parameter xGoHeight is the height of the robot dog, the range is from 75 to 115, and the parameter move_x is to set the walking speed of the robot dog, the range is from 0 to 25.

```
pi@yahboom:~/cartographer_ws2$
pi@yahboom:~/cartographer_ws2$ ros2 launch yahboom_set_height yahboomSetHeghtLaunch.launch.py xGoHeight:=95 attitude_p:=0 move_x:=0 move_y:=0
[INFO] [launch]: All log files can be found below /home/pi/.ros/log/2023-08-03-20-36-43-673626-yahboom-36098
[INFO] [launch]: Default logging verbosity is set to INFO
<launch.substitutions.launch_configuration.LaunchConfiguration object at 0xffffb1575d90>
[INFO] [yahboom_set_height-1]: process started with pid [36256]
[yahboom_set_height-1] [INFO] [1691066208.277122393] [yahboom_set_height]: xGoHeight_value: 95!
[yahboom_set_height-1] [INFO] [1691066208.283611943] [yahboom_set_height]: attitude_p_value: 0!
[yahboom_set_height-1] [INFO] [1691066208.289951800] [yahboom_set_height]: move_x_value: 0!
[yahboom_set_height-1] [INFO] [1691066208.295725362] [yahboom_set_height]: move_y_value: 0!
[yahboom_set_height-1] 95
[yahboom_set_height-1] 0
[yahboom_set_height-1] 0
[yahboom_set_height-1] 0
```

Set the parameter move_x to different values, the walking speed of the robot dog will be different.

Note: The robot dog will start walking when move_x is greater than 0. Please pay attention to safety when using it.