

ROS2 entity robot dog navigation

Quick use

1. Power up the robot dog

Press the power switch on the side of the robot dog and wait for the robot dog to finish starting up. And connect the WiFi of the robot dog to the same LAN environment as your computer.



After the robot dog startup is complete, the lidar, imu, and robot dog joint status nodes have been automatically started.

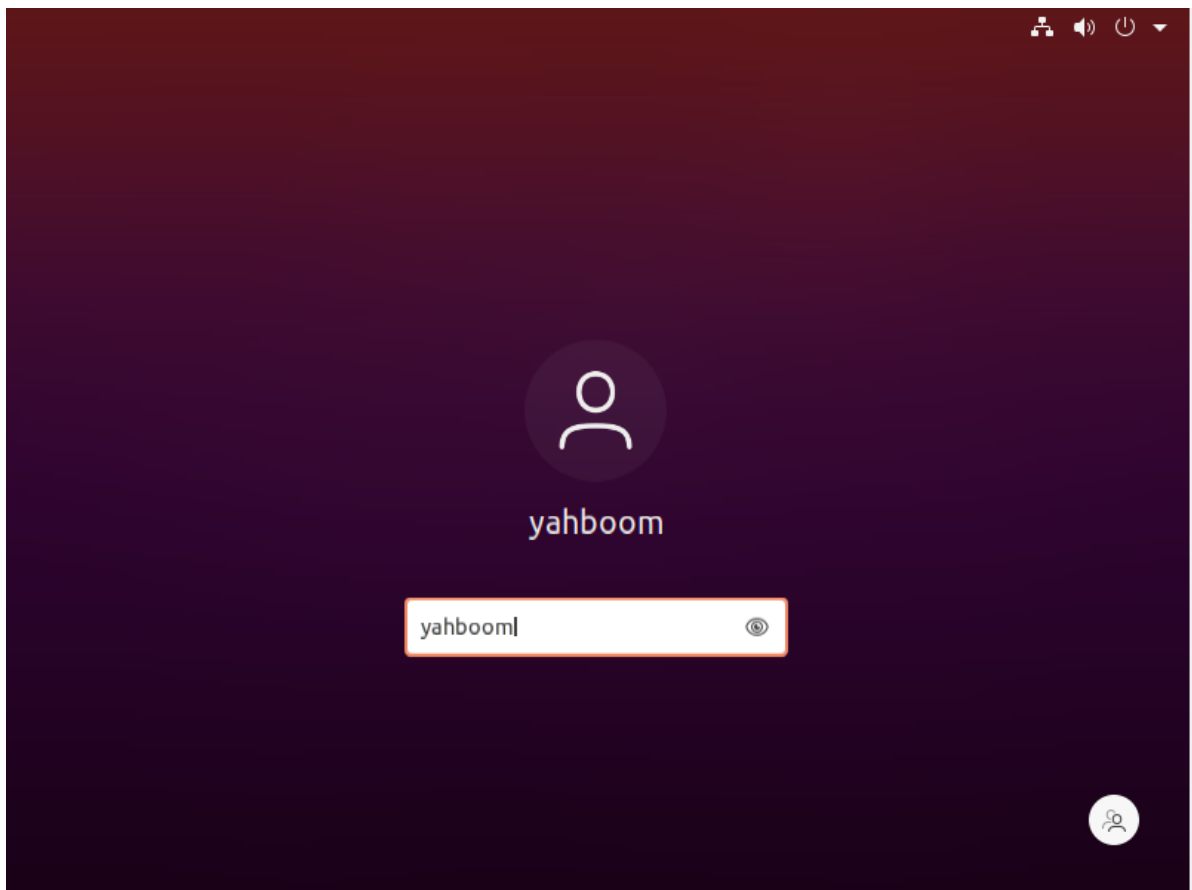
If you find that you are unable to obtain data such as LIDAR, please close the Mechanical Dog Large programme and restart the chassis programme.

Close the big programme, restart the chassis as well as multi-level communication id modification can refer to the tutorial: 14. Lidar mapping navigation \6. ROS2 environment entity robot dog state acquisition \ ROS2 environment to obtain the real joints of the robot dog data.pdf

2. Open the virtual machine

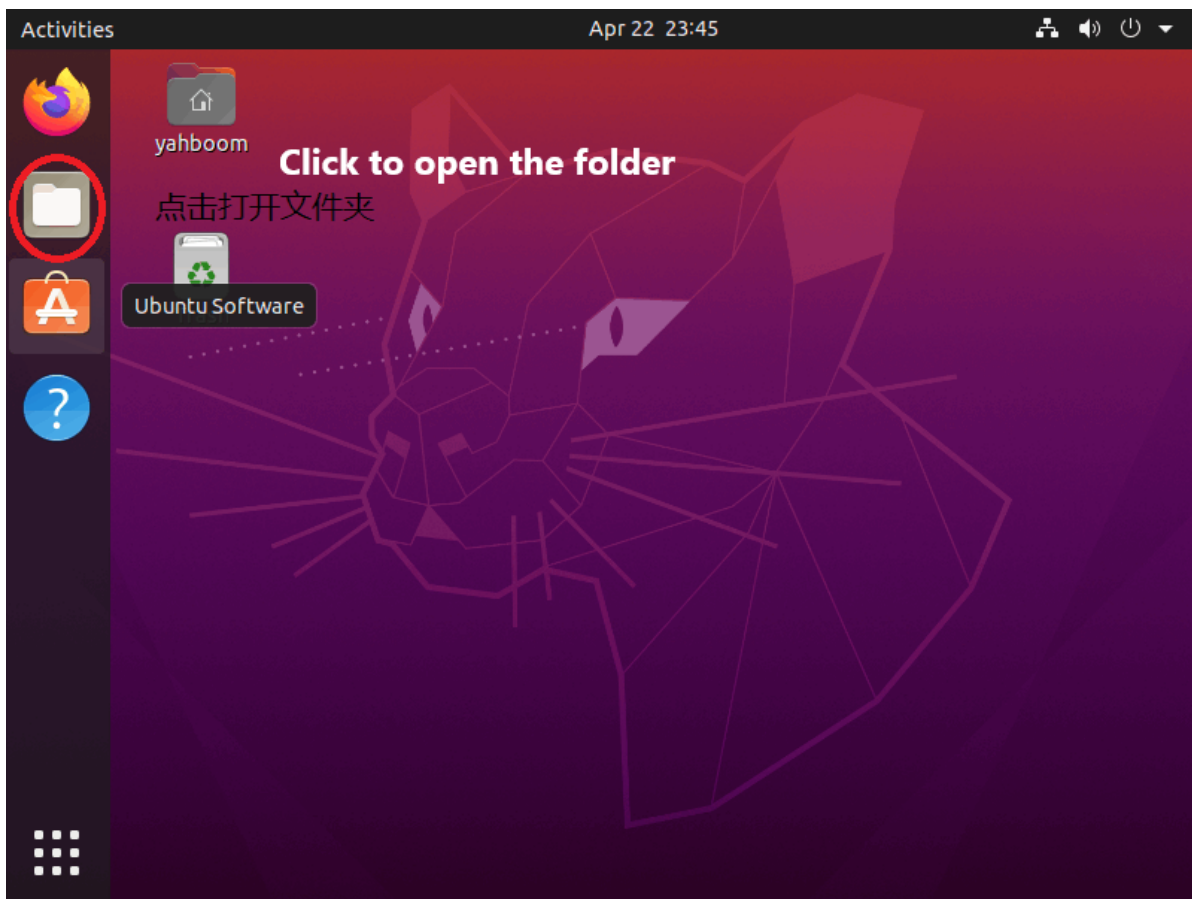
Note: Here the default virtual machine has been installed.

Open the virtual machine, enter the password: yahboom and then press the Enter key to enter the system desktop.

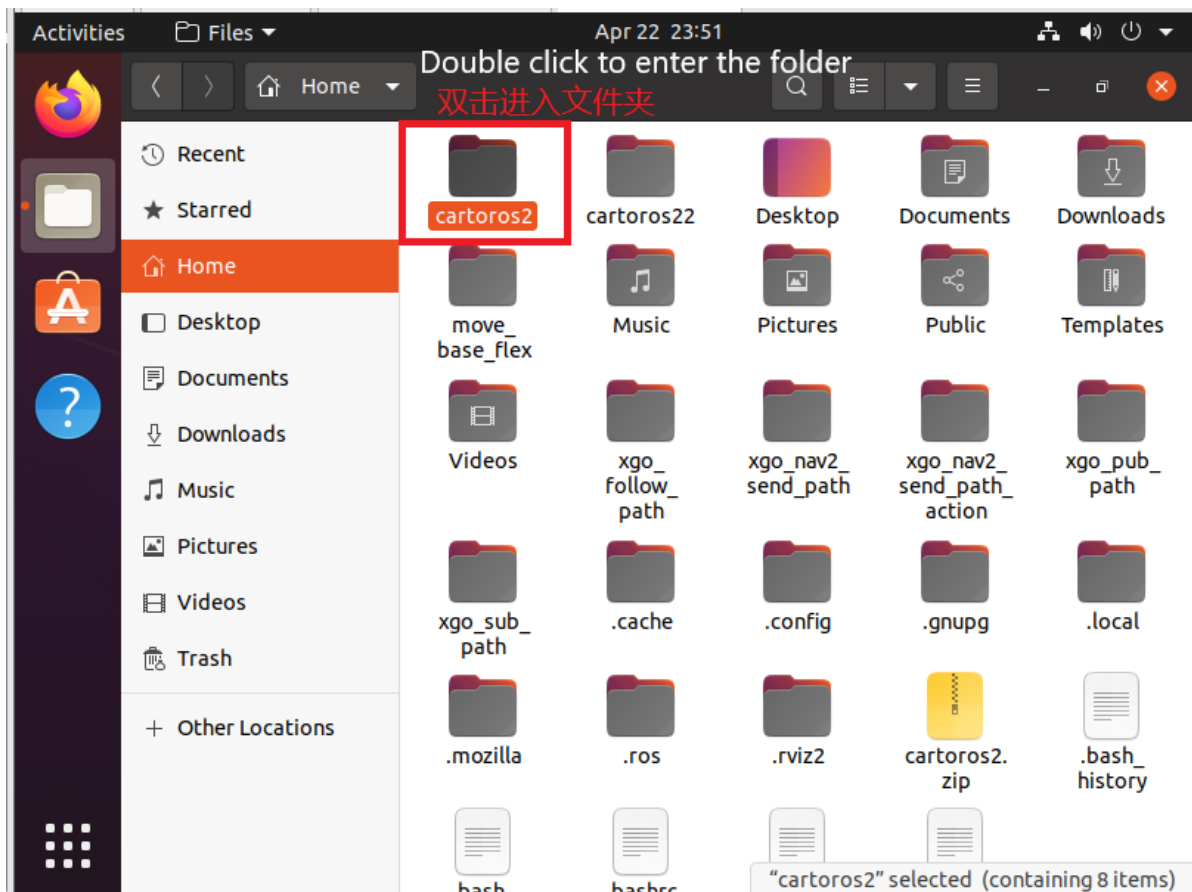


3. Start the Mechanical Dog navigation node

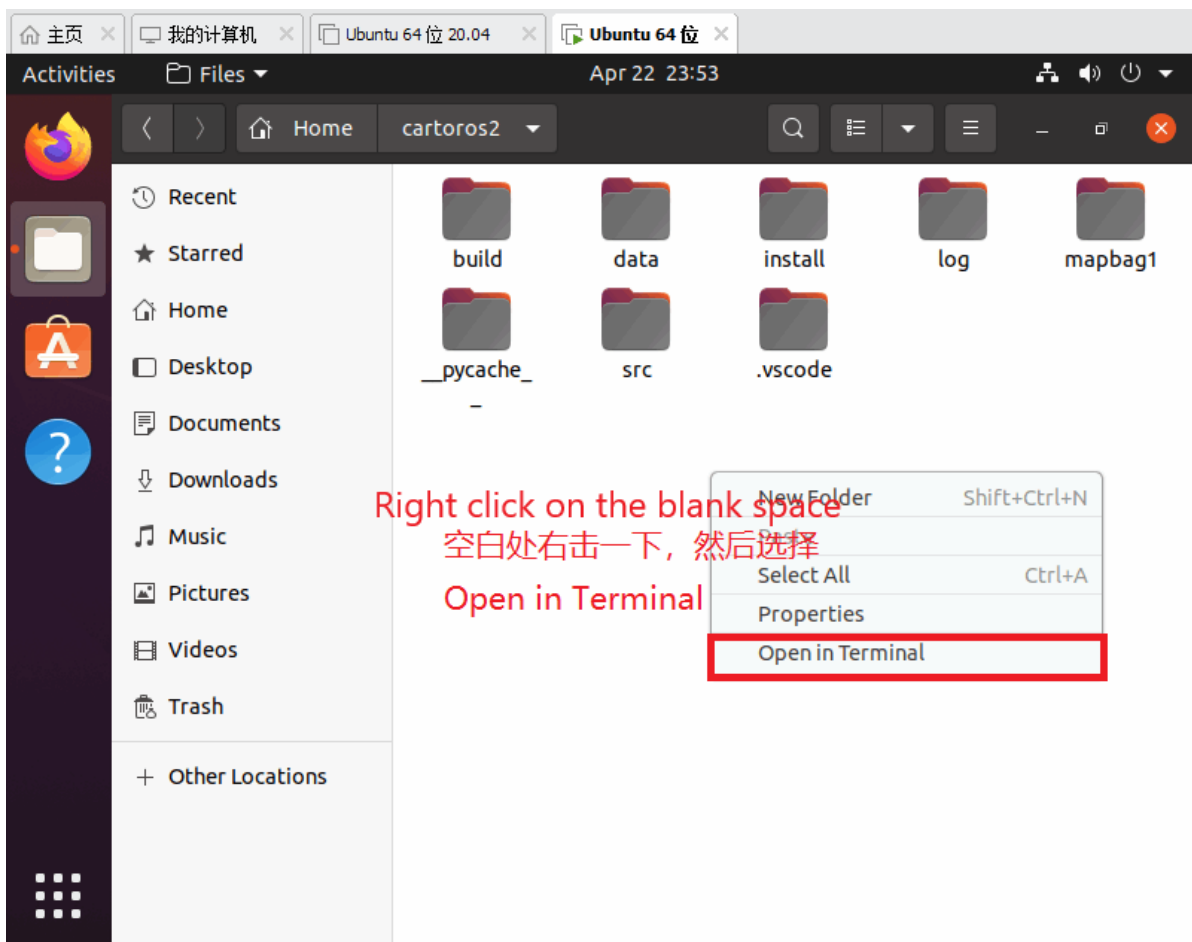
Go to the desktop system and open the folder.



Then double click on the cartoros2 folder



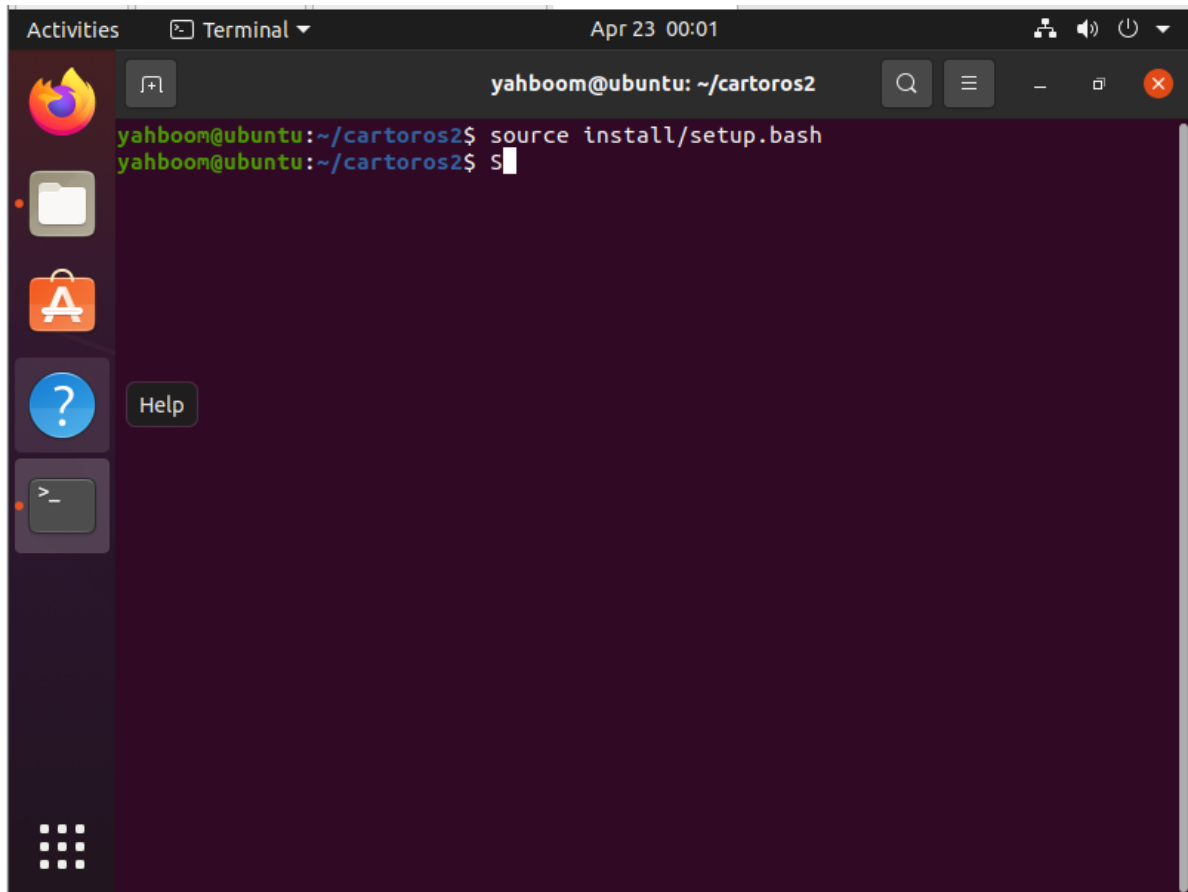
Then right-click in a blank space in the folder and select Open in Terminal



Then activate the environment by typing the following command in the terminal

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

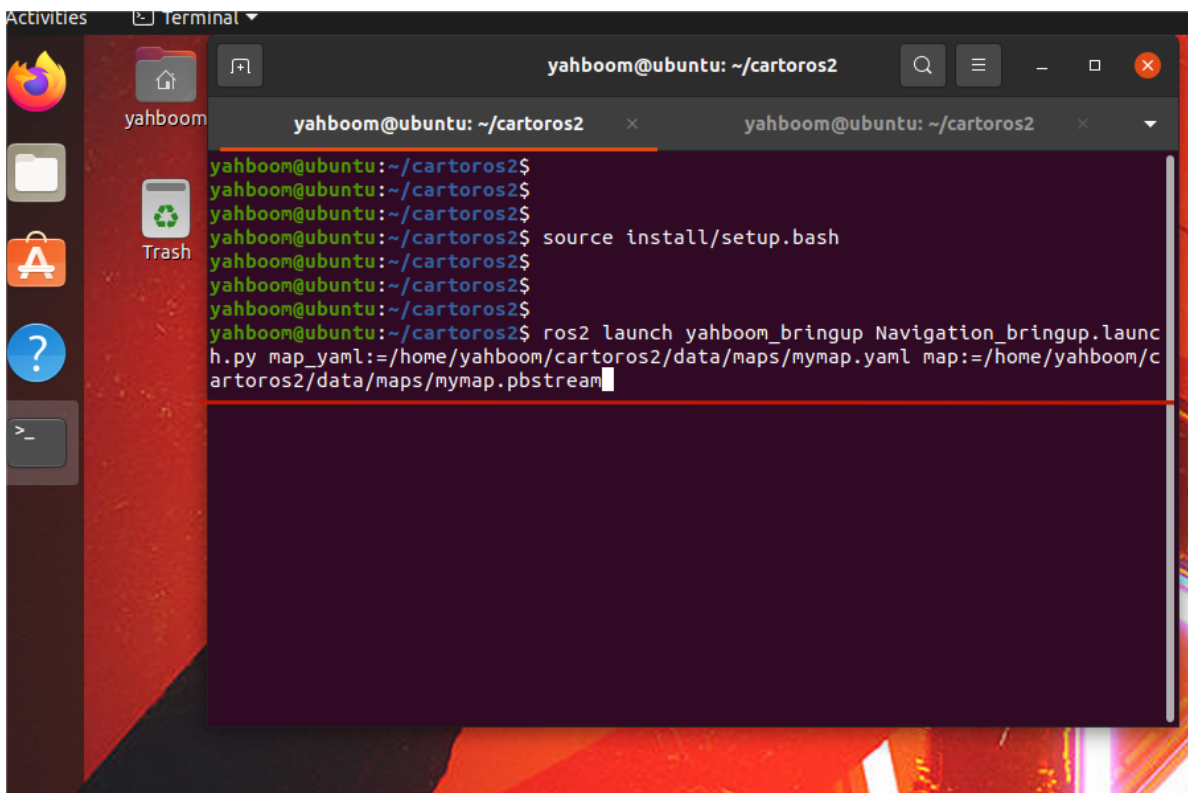
Press the Enter key when you have finished typing.



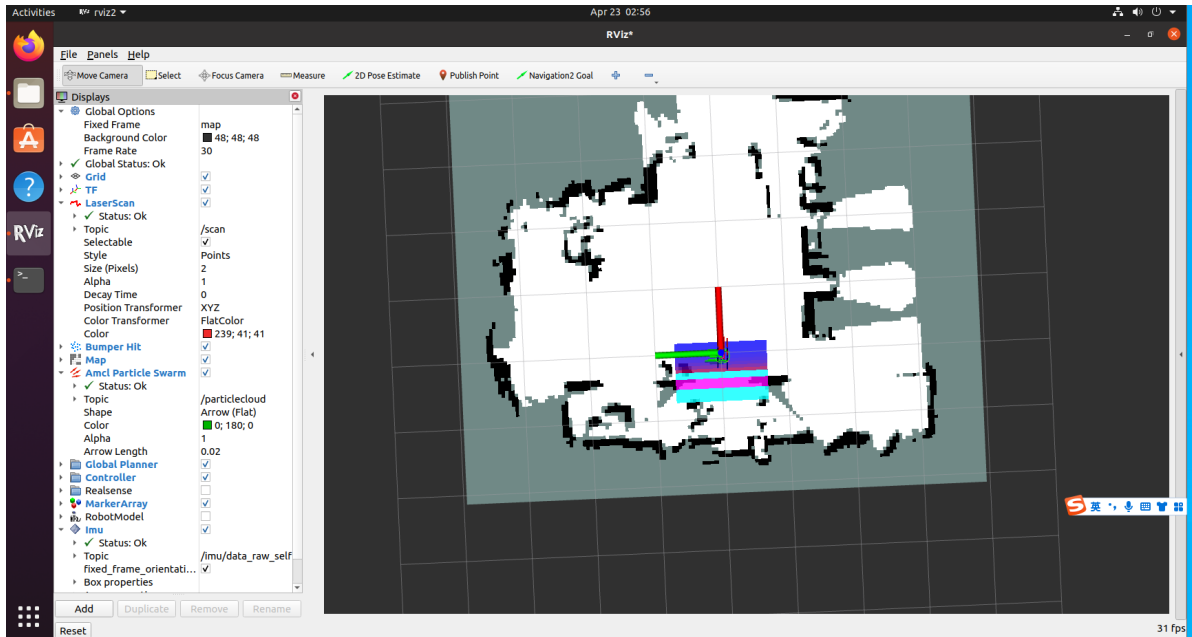
Then enter the command

```
ros2 launch yahboom_bringup Navigation_bringup.launch.py  
map_yaml:=/home/yahboom/cartoros2/data/maps/mymap.yaml  
map:=/home/yahboom/cartoros2/data/maps/mymap.pbstream
```

Where map_yaml is the map's yaml file and map is the map's pbstream file.



Then pressing the enter key can will allow you to navigate.



After clicking on the Navigation2 Goal button, clicking on a goal point on the map screen will automatically plan a route and drive to the goal point.

