

ReadMe

1.Source code description

We provide two sets of source code, one is the function package source code that only drives the lidar, and the other is the function package source code of the tutorial case in the virtual machine, which contains the lidar function package and the source code of the tutorial case.

rplidar_ros-dev-ros2.tar.xz: This is a function package that only drives lidar.

rplidar_ws_src: Here is not only the function package for driving the lidar, but also the source code function package supporting the tutorial.

Generally, you can install the rplidar_ros function package on your own motherboard. The function package installation shown in other cases requires some dependencies, and errors may occur during installation and compilation.

Source code here is for reference only and will not actually run. But Yahboom robot products can achieve this.

yahboomcar_ws_src.tar.xz, which contains the source code related to the ROS2 basic tutorial.

2. Virtual machine lidar model settings

Since the SDK of the SLAM lidar series is suitable for multiple SLAM lidars, the virtual machine integrates the running environments of A1, A2M12, A3, S2, S2L, and C1.

When using the supporting virtual machine to run the lidar, we need to set the lidar model according to the purchased lidar model. The setting method is to modify the ~/.bashrc file. Enter the following command in the terminal

```
sudo gedit ~/.bashrc
```

Find **[LIDAR_TYPE]** ,

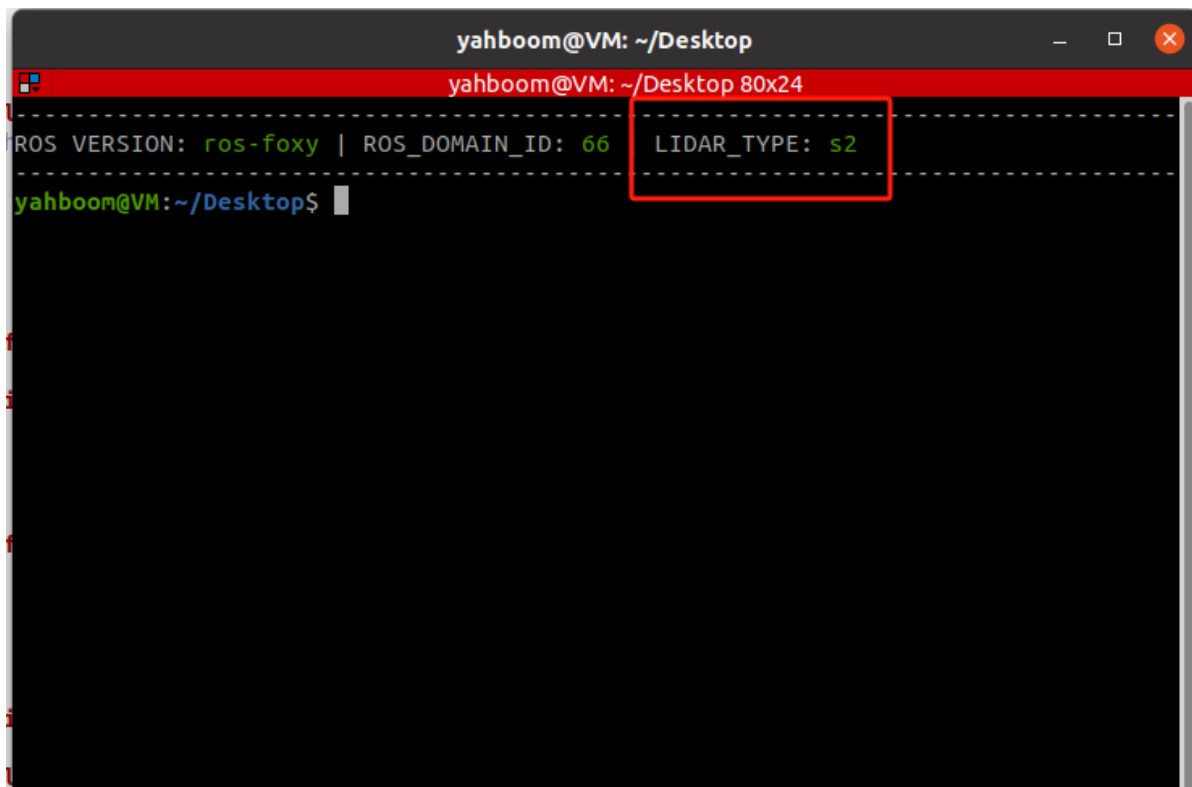
```
118 # env
119 alias python=python3
120 export LIDAR_TYPE=s2 #a1, s2, c1, a3, a2
121 export ROS_DOMAIN_ID=66
122 echo "-----"
123 echo -e "ROS VERSION: \033[32mros-foxy\033[0m | ROS_DOMAIN_I
| LIDAR_TYPE: \033[32m$LIDAR_TYPE\033[0m"
124 echo "-----"
125
126 #ros2
127 source /opt/ros/foxy/setup.bash
```

Change the value of [LIDAR_TYPE] to the actual purchased lidar model, followed by the lidar model options. Assume that the purchased lidar is S2.

S2 lidar and S2L lidar both select s2.

After modification, save and exit.

Close the current terminal and reopen a terminal. The terminal will display the currently set lidar model.

A terminal window titled 'yahboom@VM: ~/Desktop' with a red header bar. The terminal displays the output of a command, showing ROS environment variables: 'ROS VERSION: ros-foxy | ROS_DOMAIN_ID: 66 | LIDAR_TYPE: s2'. The 'LIDAR_TYPE: s2' part is highlighted with a red rectangular box. Below this, the prompt 'yahboom@VM:~/Desktop\$' is visible with a cursor.

```
yahboom@VM: ~/Desktop
yahboom@VM: ~/Desktop 80x24
-----
ROS VERSION: ros-foxy | ROS_DOMAIN_ID: 66 | LIDAR_TYPE: s2
-----
yahboom@VM:~/Desktop$
```

After the above modifications, when we start the lidar launch, the system will automatically start the corresponding launch file based on [LIDAR_TYPE].