

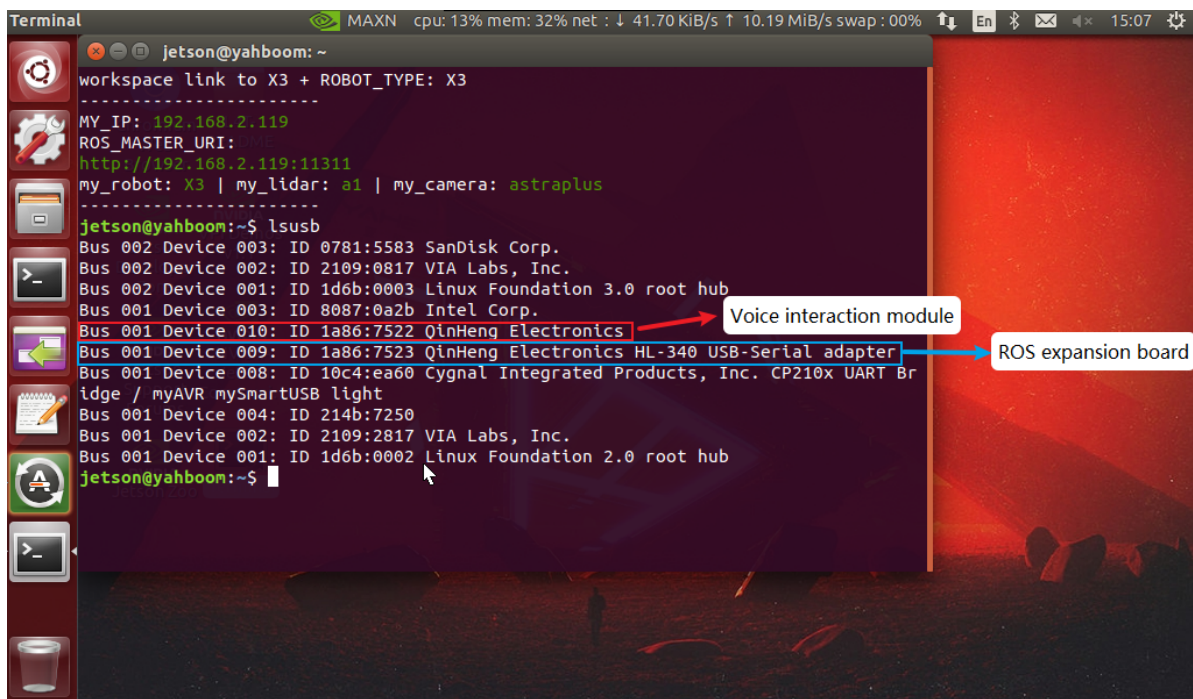
## 2. Voice Control Module Port Binding

Note: The voice interaction module is pre-wired at the factory and can be used directly without repeating the steps in this tutorial. The following binding steps are for demonstration purposes only and are for reference only.



Enter the following command in the terminal to check if the device is connected.

```
lsusb
```

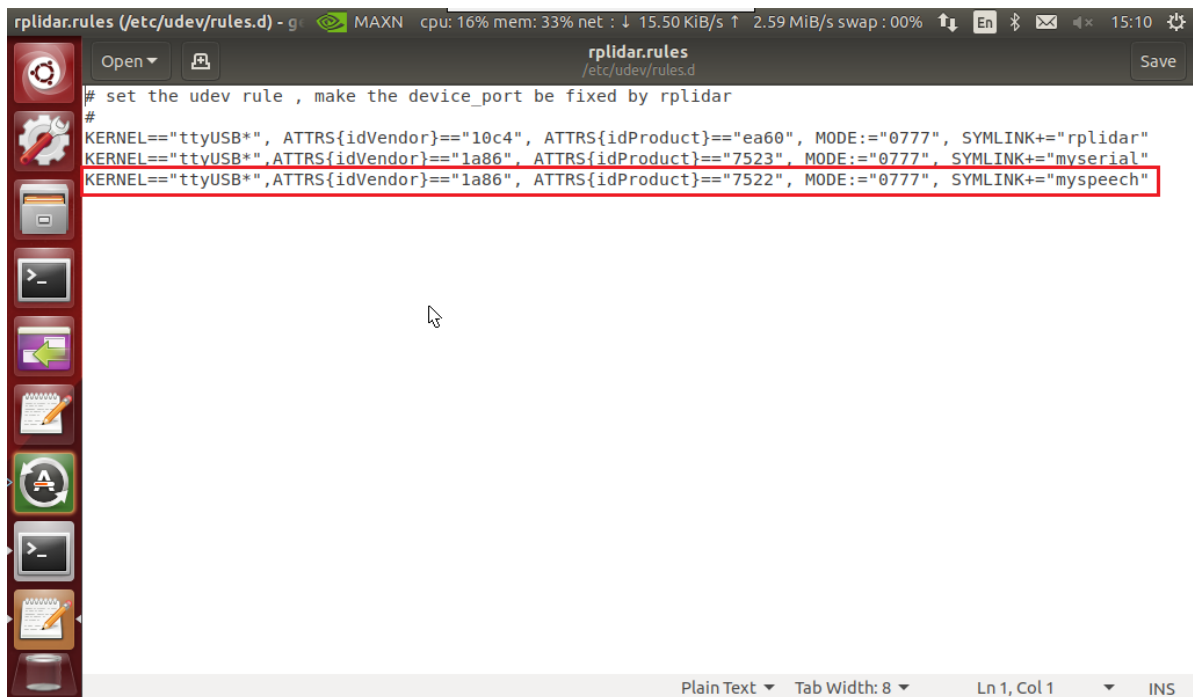


Then, we modify the /etc/udev/rules.d/usb.rules file and enter it in the terminal.

```
sudo gedit /etc/udev/rules.d/usb.rules
```

Add the following content:

```
KERNEL=="ttyUSB*", ATTRS{idVendor}=="1a86", ATTRS{idProduct}=="7522",
MODE=="0777", SYMLINK+="myspeech"
```



Save and exit. Enter the following command in the terminal to reload the system devices.

```

sudo udevadm trigger
sudo service udev reload
sudo service udev restart

```

You can then query the port number bound to each device.

```
jetson@yahboom:~$ ll /dev/ttyUSB*
crwxrwxrwx 1 root root 188, 0 4月 22 15:11 /dev/ttyUSB0
crwxrwxrwx 1 root root 188, 1 4月 22 15:11 /dev/ttyUSB1
crwxrwxrwx 1 root root 188, 2 4月 22 15:11 /dev/ttyUSB2
jetson@yahboom:~$ ll /dev/rplidar
lrwxrwxrwx 1 root root 7 4月 22 15:11 /dev/rplidar -> ttyUSB0
jetson@yahboom:~$ ll /dev/myserial
lrwxrwxrwx 1 root root 7 4月 22 15:11 /dev/myserial -> ttyUSB1
jetson@yahboom:~$ ll /dev/myspeech
lrwxrwxrwx 1 root root 7 4月 22 15:11 /dev/myspeech -> ttyUSB2
jetson@yahboom:~$
```

## 2.3. Testing

Finally, the physical connection diagram of the bound ports is shown below.

```
python3 voice_ctrl_test.py
```

- After successfully connecting to the voice module. "Speech Serial Opened! Baudrate=115200" will be displayed on the terminal.
- After saying "yahboom,yahboom" to the module, the voice will respond "Yes, I am."
- After unplugging the voice control module, the program will exit with an error.

If the actual running results are consistent with the above three points, the device binding is successful.