

## 2、Quick Start Guide for Handle Control

- 2、Quick Start Guide for Handle Control
  - 2.1、What is the Boot Auto-start Handle Control Program
  - 2.2、Temporarily Close Handle Control Program
  - 2.3、Permanently Disable Handle Control Program Auto-start
  - 2.4、Permanently Enable Handle Control Program Auto-start
  - 2.5、Temporarily Start Handle Control Program

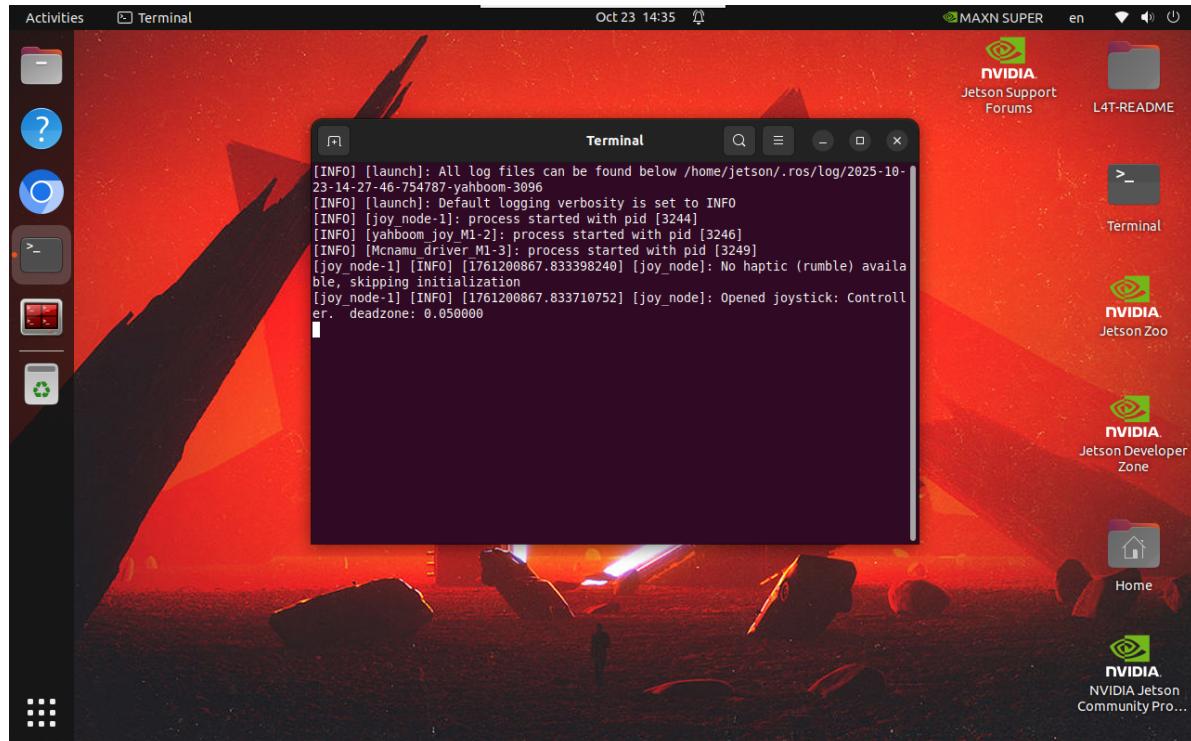
### 2.1、What is the Boot Auto-start Handle Control Program

To provide convenient control experience for the robot, a handle control program has been added to the system. This program automatically starts when the main board system boots up, hence it's called "Boot Auto-start Handle Control Program".

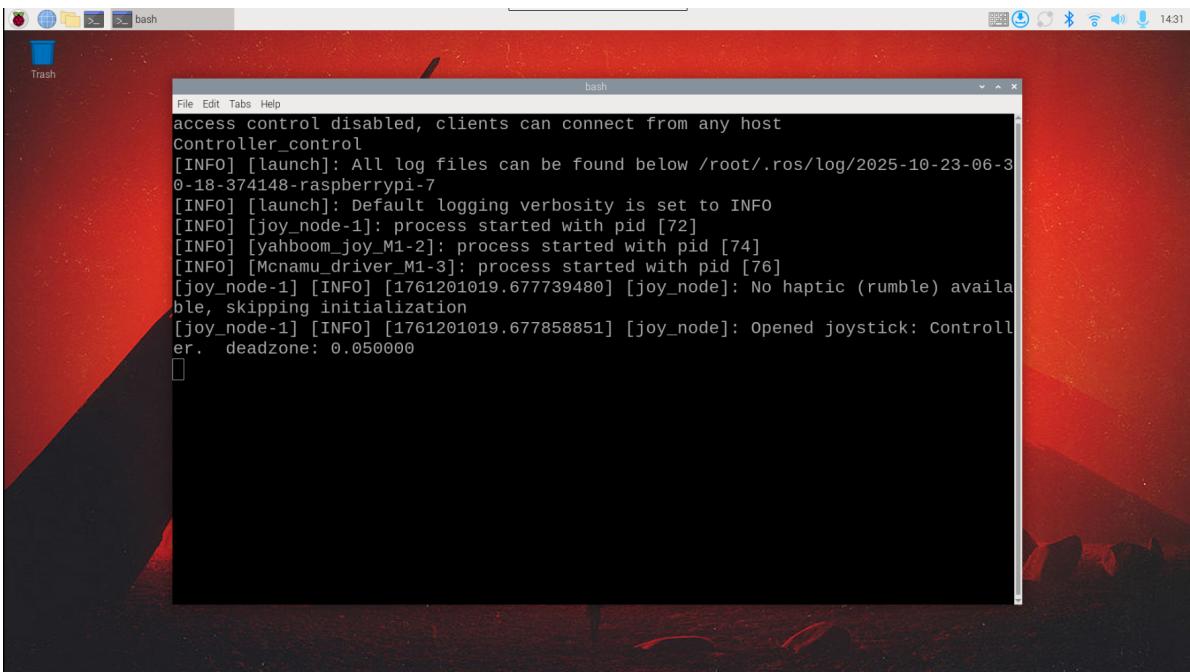
The boot auto-start handle control program is only for convenient control experience of the robot. In actual development, the handle control program needs to be closed, otherwise it will occupy devices and cause unpredictable errors. Therefore, before developing programs, please manually close the handle control program first.

There are two ways to close the handle control program. One is temporary closing, which only closes it once and it will automatically start again on next boot. The other is permanent closing, which prevents it from automatically starting on next boot unless manually re-enabled.

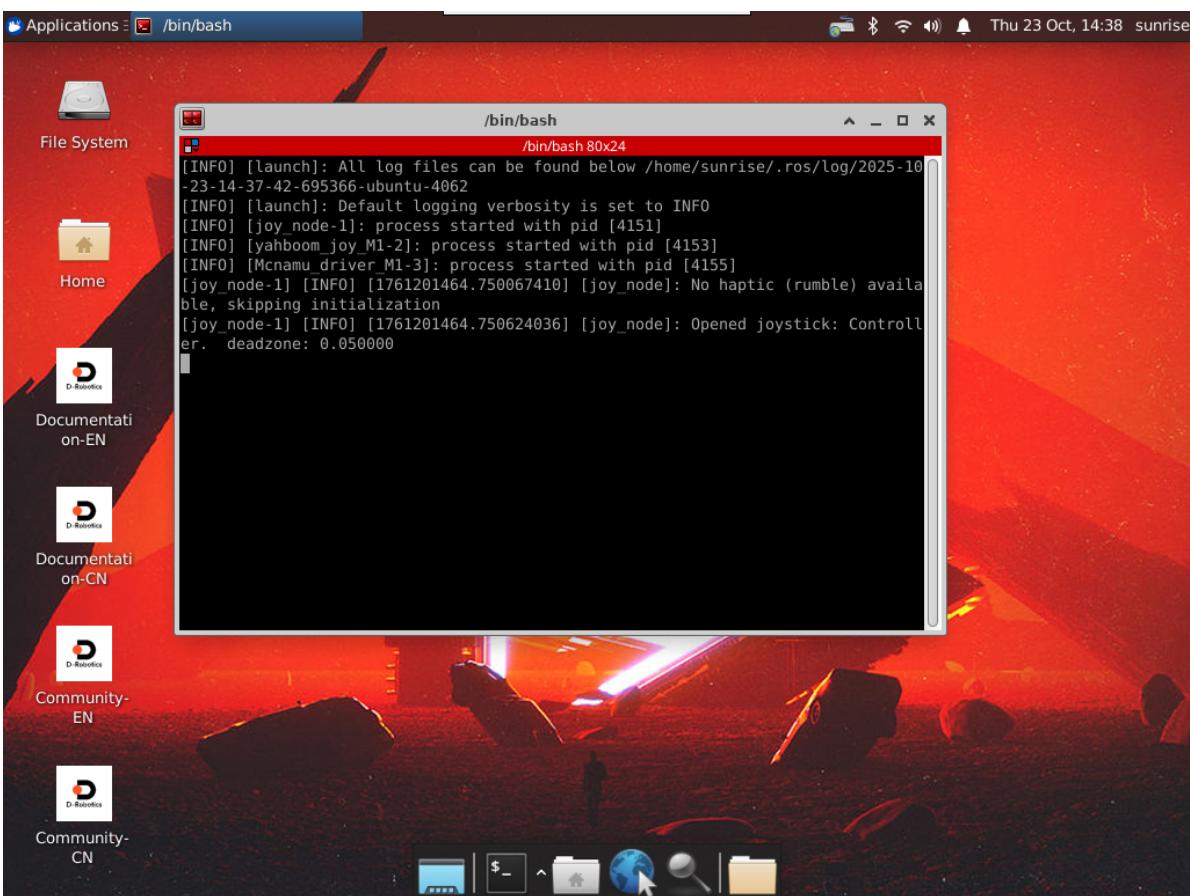
Taking jetson users as an example, please connect the handle receiver to the USB HUB board.



Raspberry Pi:



RDK X5:





## Wireless controller

After startup, press the "START" button and hear the buzzer sound, then you can start remote control. **The remote control will enter sleep mode after a period of inactivity, requiring you to press the "START" button to end sleep mode.** If you want to **control the robot movement**, you also need to **press the R2 button to release the motion control lock** before you can use the joystick to control the robot's movement.

Remote control effect description,

Handle	Effect
Left joystick up/down/left/right	Forward/backward straight/strafe left/strafe right
Left joystick press	Linear speed increase/decrease
Right joystick left/right	Turn left/turn right
Right joystick press	Angular speed increase/decrease
"START" button	Control buzzer/end sleep mode
Direction buttons left/right	Control PTZ servo left/right movement
Direction buttons up/down	Control PTZ servo up/down movement
R1 button	Servo centering
R2 button	Handle motion control switch

## 2.2、Temporarily Close Handle Control Program

If you have a 7-inch touchscreen or display with mouse and keyboard, connect them and log in to the desktop.

If you don't have a display and mouse/keyboard, please use a computer on the same local network to open VNC Viewer software and remotely log in to the desktop.

For detailed VNC remote login operations, please refer to [Linux Operating System\8.VNC Remote Control](#)

`jetson users`

Username: jetson

Password: yahboom

`pi users`

Username: pi

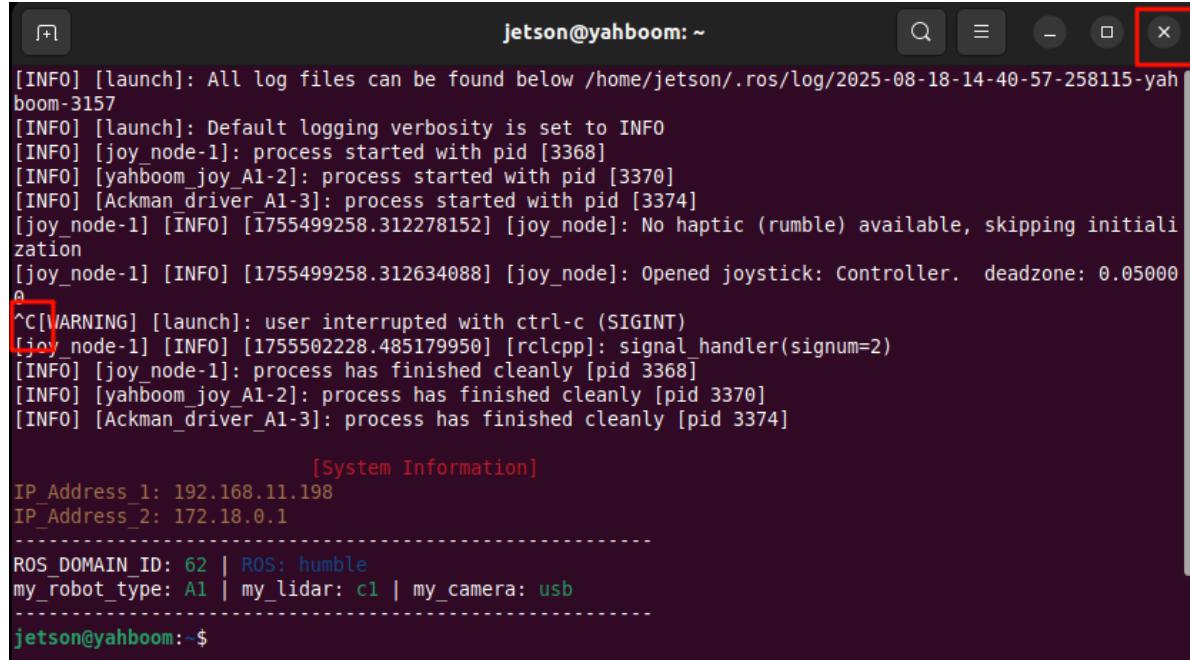
Password: yahboom

`rdk x5 users`

Username: sunrise

Password: yahboom

After entering the desktop, you will see a terminal. Simply click the X symbol in the upper left corner to close the terminal and close the handle control program, or execute the shortcut key `ctrl+c` in this terminal. Sometimes it may prompt that closing the terminal will close running programs, choose to confirm closing.



The screenshot shows a terminal window titled "jetson@yahboom: ~". The window contains the following text:

```
[INFO] [launch]: All log files can be found below /home/jetson/.ros/log/2025-08-18-14-40-57-258115-yahboom-3157
[INFO] [launch]: Default logging verbosity is set to INFO
[INFO] [joy_node-1]: process started with pid [3368]
[INFO] [yahboom_joy_A1-2]: process started with pid [3370]
[INFO] [Ackman_driver_A1-3]: process started with pid [3374]
[INFO] [joy_node-1] [INFO] [1755499258.312278152] [joy_node]: No haptic (rumble) available, skipping initialization
[INFO] [joy_node-1] [INFO] [1755499258.312634088] [joy_node]: Opened joystick: Controller. deadzone: 0.05000
^[[WARNING] [launch]: user interrupted with ctrl-c (SIGINT)
[INFO] [joy_node-1] [INFO] [1755502228.485179950] [rclcpp]: signal_handler(signum=2)
[INFO] [joy_node-1]: process has finished cleanly [pid 3368]
[INFO] [yahboom_joy_A1-2]: process has finished cleanly [pid 3370]
[INFO] [Ackman_driver_A1-3]: process has finished cleanly [pid 3374]

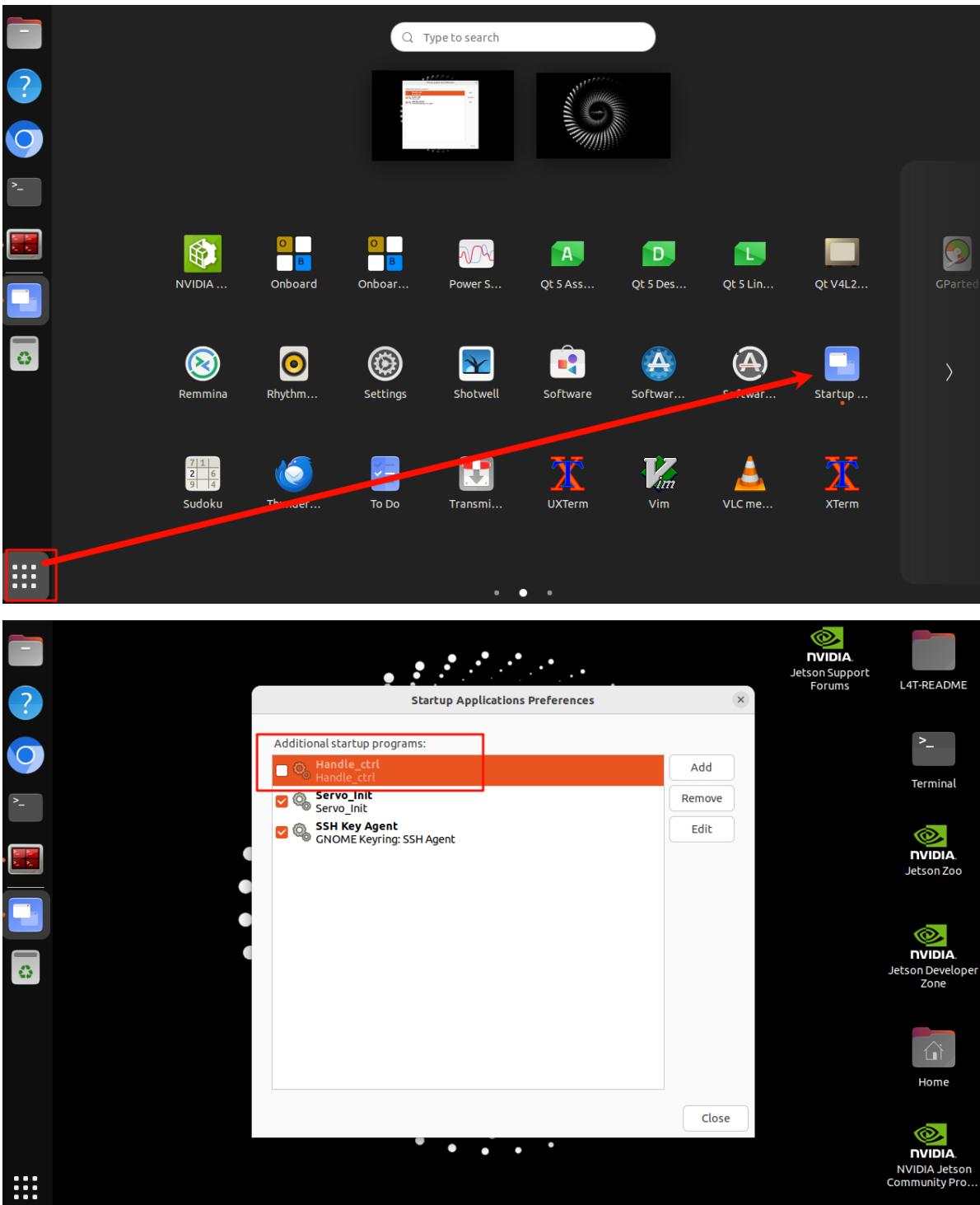
[System Information]
IP_Address_1: 192.168.11.198
IP_Address_2: 172.18.0.1
-----
ROS_DOMAIN_ID: 62 | ROS: humble
my_robot_type: A1 | my_lidar: c1 | my_camera: usb
-----
jetson@yahboom:~$
```

## 2.3、Permanently Disable Handle Control Program Auto-start

First, follow the temporary closing method to close the currently running handle control program.

- `jetson users`

Open the Ubuntu system applications, search for Startup Applications, and uncheck the box before Handle\_ctrl as shown in the figure below, then you can permanently disable the handle control program.



- Raspberry Pi 5

```
sudo rm -rf /home/pi/.config/autostart/start_handle.desktop
```

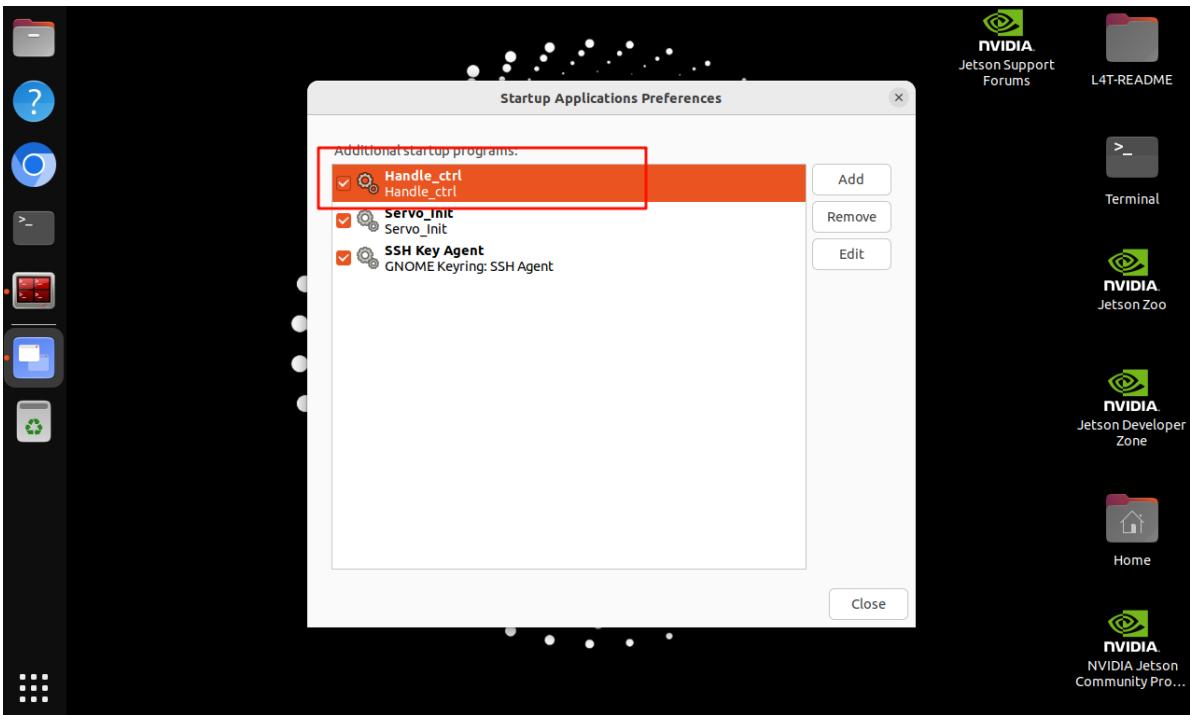
- RDK X5

```
sudo systemctl disable handle_control.service
```

## 2.4、Permanently Enable Handle Control Program Auto-start

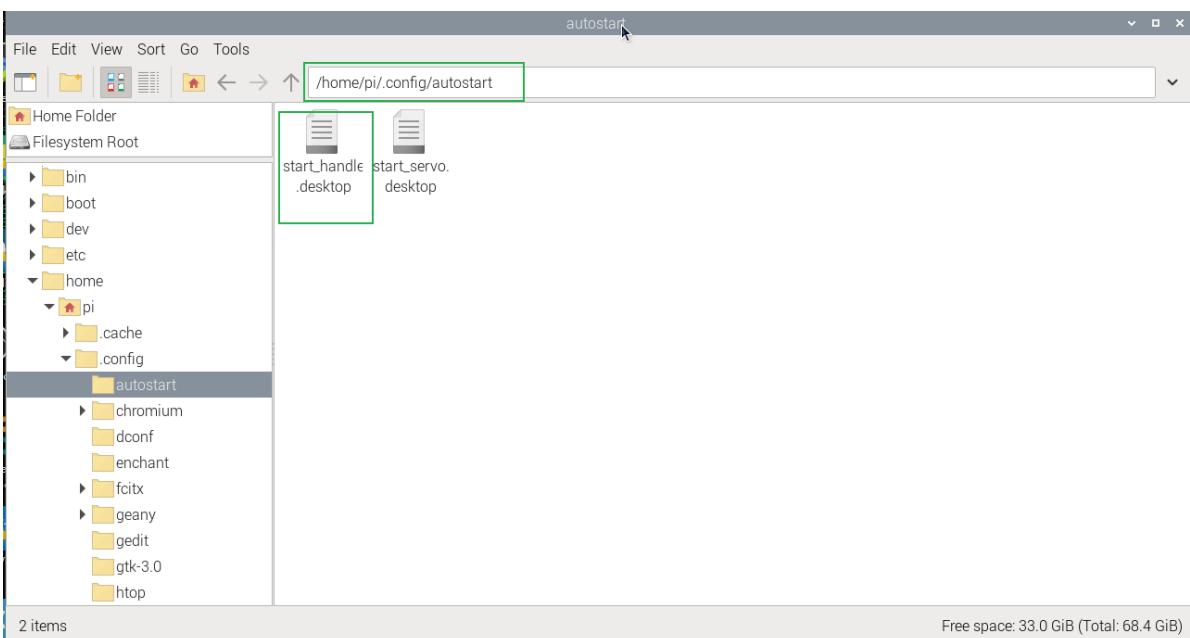
- jetson users

Open the Ubuntu system applications, search for Startup Applications, and check the box before Handle\_ctrl as shown in the figure below, then the program will automatically start on next system boot.



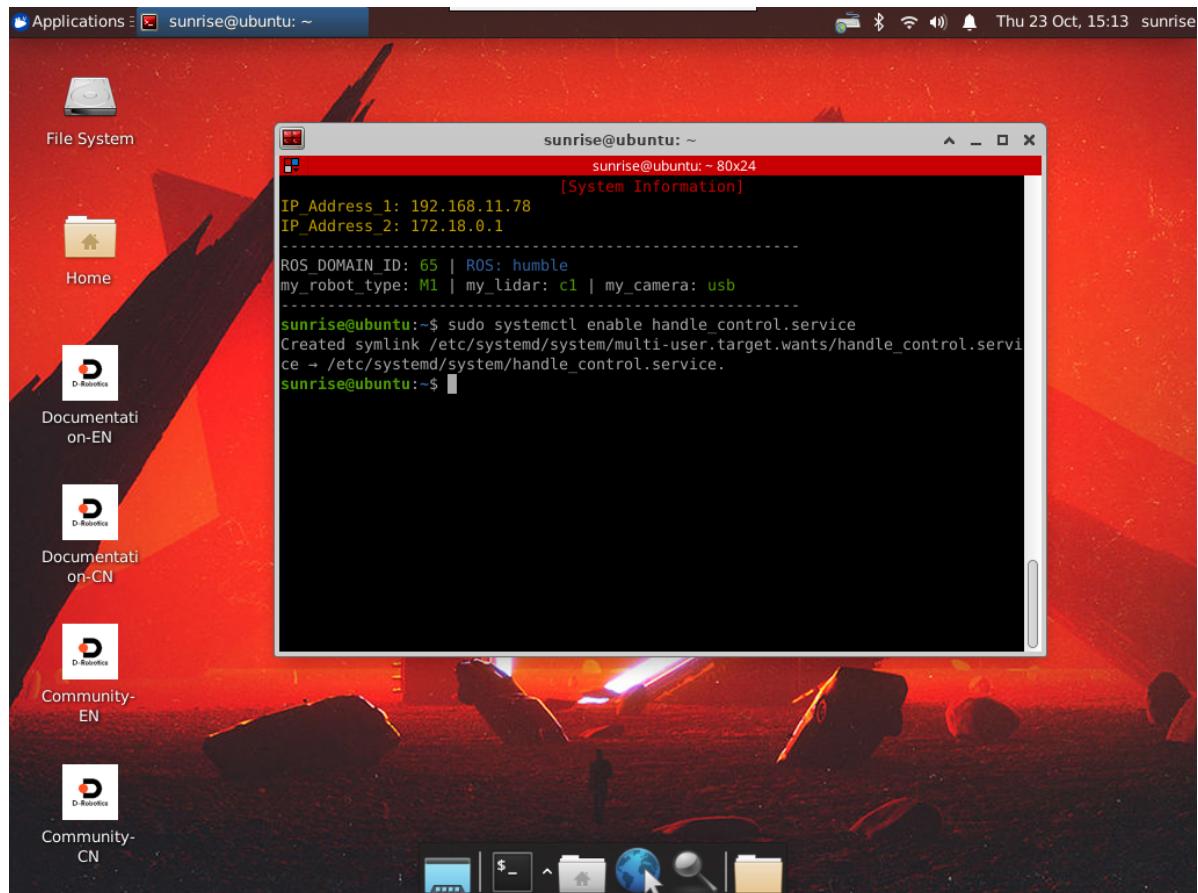
- Raspberry Pi 5

```
sudo cp -r /home/pi/Rosmaster/rosmaster/start_handle.desktop  
/home/pi/.config/autostart/  
sudo chown -R pi:pi /home/pi/.config/autostart/start_handle.desktop
```



- RDK X5

```
sudo systemctl enable handle_control.service
```



## 2.5、Temporarily Start Handle Control Program

- **jetson users**

If you need to manually start the handle control program, please first open Ubuntu terminal, then enter the following command:

```
bash ~/Rosmaster/rosmaster/handle_control.sh
```

- **Raspberry Pi 5**

```
bash ~/Rosmaster/rosmaster/start_ros2_humble.sh
```

- **RDK X5**

```
sudo systemctl start handle_control.service
```