

Quick start guide

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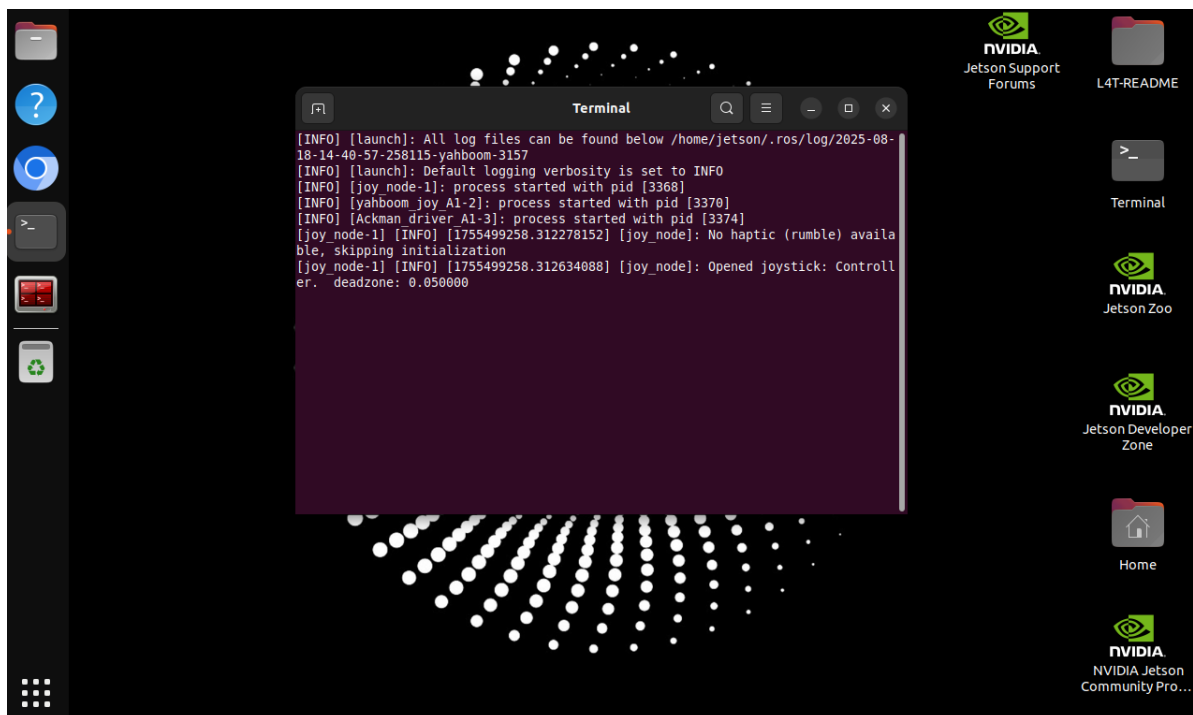
2.1 What is the Power-On Auto-Start Controller Program?

To facilitate control of the Experience Car, a controller program has been added to the system. This program automatically starts when the mainboard system starts, hence the name "Power-On Auto-Start Controller Program."

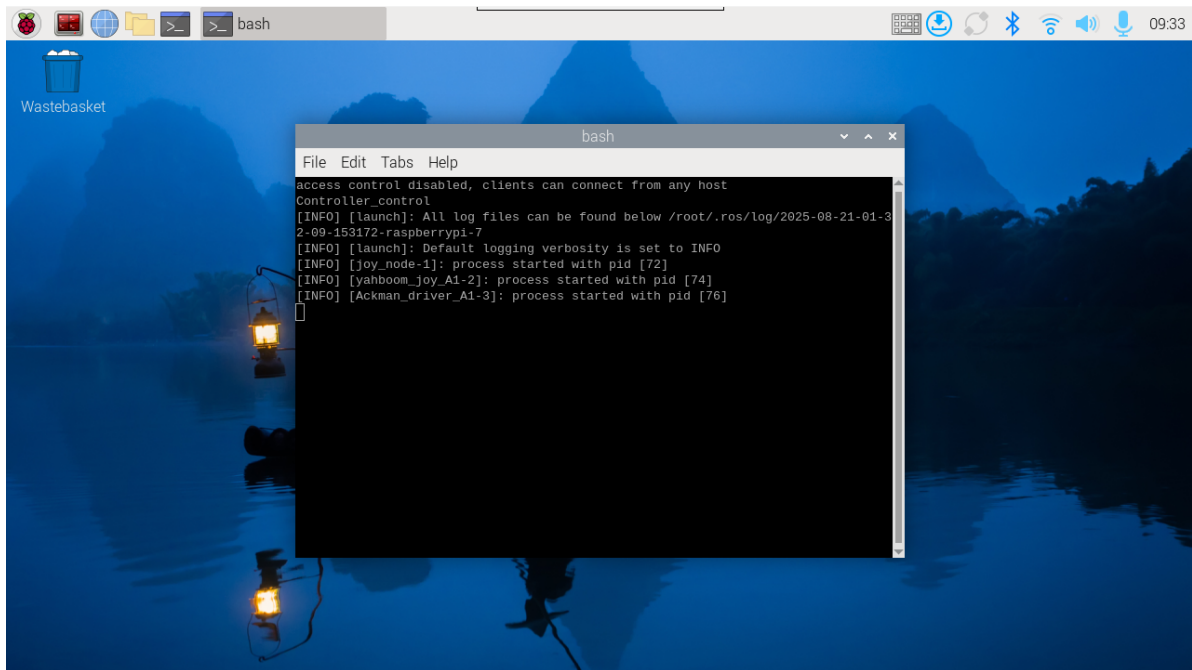
The power-on auto-start controller program is only for convenient control of the Experience Car. In actual development, it is necessary to disable the controller program. Otherwise, it will occupy the device and cause unpredictable errors. Therefore, please manually disable the controller program before developing your program.

There are two ways to disable the controller program: one is to disable it once, and it will automatically start again the next time the system starts (this is called temporary disabling). The other is to disable it so that it will not automatically start again the next time the system starts (this is called permanent disabling).

For Jetson users, please connect the controller receiver to the USB hub board.



Raspberry Pi:



Wireless controller

After turning it on, press the "START" button. When you hear the buzzer, you can start remote control. **If the remote control is left on for a while and not used, it will enter sleep mode. You need to press the "START" button to end it.** To control the car's movement, you also need to press the R2 key to unlock the motion control lock before you can use the joystick to control the car's movement.

Remote Control Effects

Controller	Effects
Left Stick Up/Down	Forward/Backward
Left Stick Pressed	Decelerate
Right Stick Left/Right	Turn Left/Right
Right Stick Pressed	Accelerate
"START" Button	Control Buzzer/End Sleep
Arrow Keys Left/Right	Control Gimbal Servo Left/Right
Arrow Keys Up/Down	Control Gimbal Servo Up/Down
R1 Key	Center Servo
R2 Key	Controller Motion Control Switch

2.2. Temporarily Disable the Controller Control Program

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

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

For detailed instructions on how to log in remotely using VNC, refer to **Linux Operating System\8. VNC Remote Control**

jetson User

Username: jetson

Password: yahboom

pi User

Username: pi

Password: yahboom

Once you have a terminal, you can close it by clicking the X symbol in the upper-left corner, or by pressing Ctrl+C. You may be prompted that closing the terminal will also close any running programs; confirm the closing.

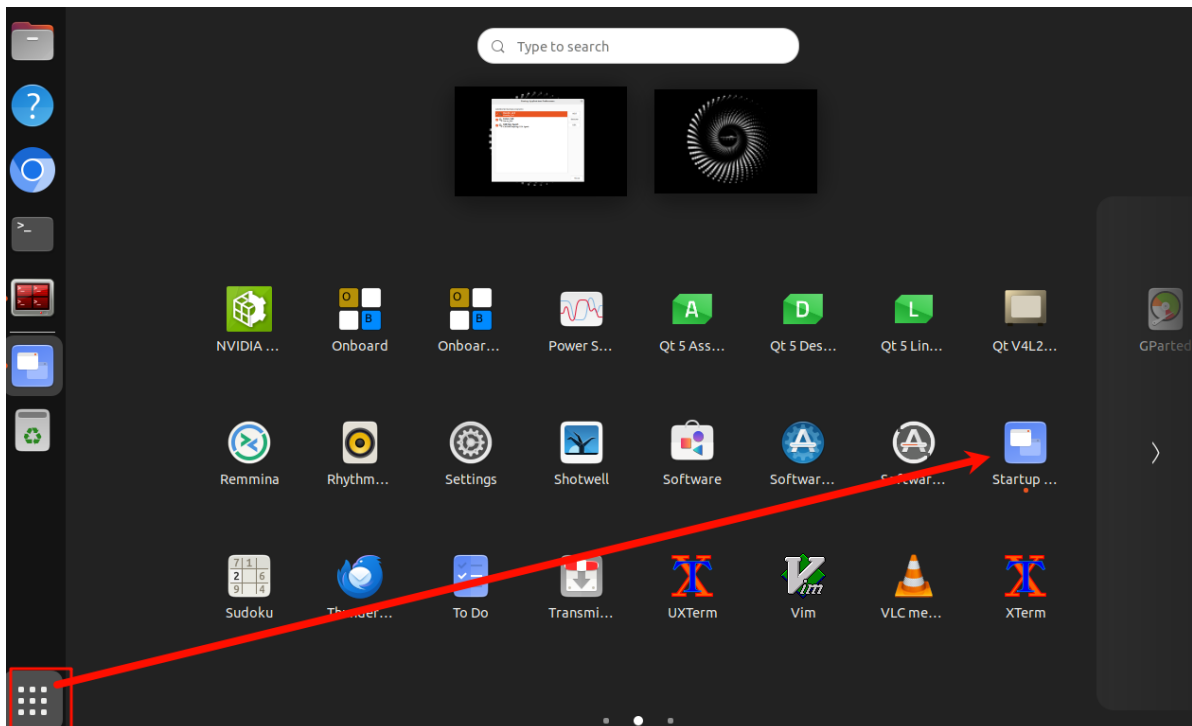
```
jetson@yahboom: ~  
[INFO] [launch]: All log files can be found below /home/jetson/.ros/log/2025-08-18-14-40-57-258115-yahboom-3157  
[INFO] [launch]: Default logging verbosity is set to INFO  
[INFO] [joy_node-1]: process started with pid [3368]  
[INFO] [yahboom_joy_A1-2]: process started with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

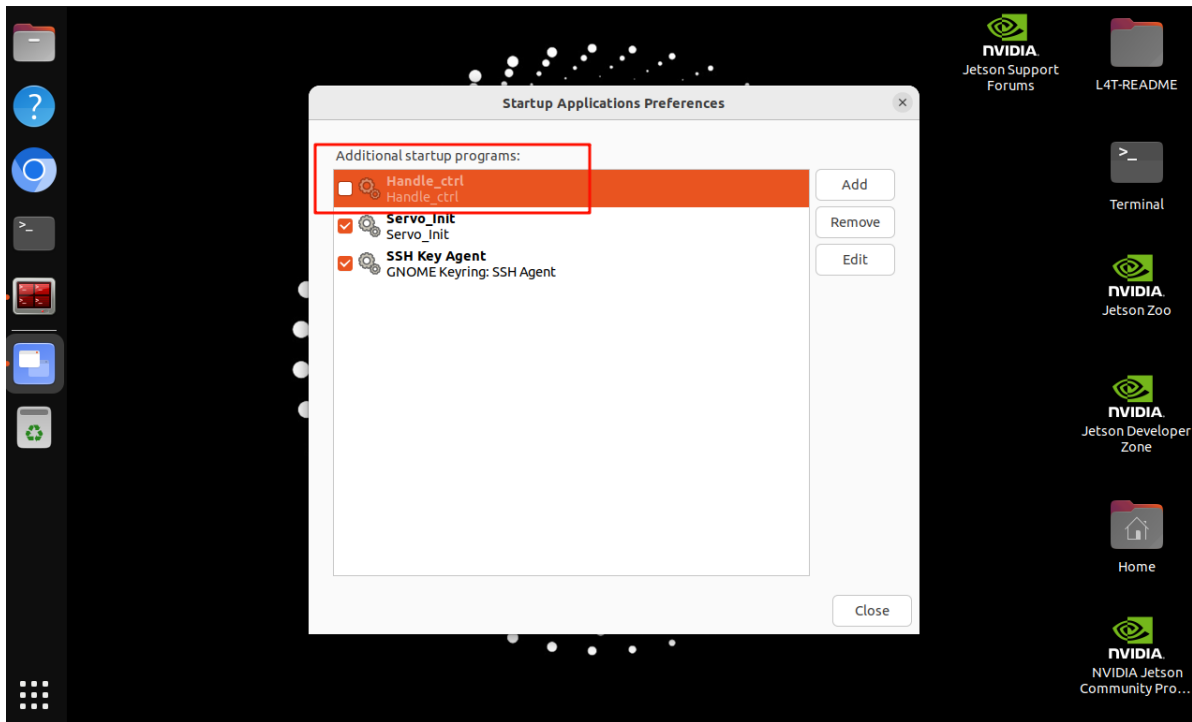
2.3. Permanently Disabling the Automatic Startup of the Controller Control Program

First, close the running controller control program using the temporary shutdown method.

- jetson user

Open the Ubuntu system application, search for Startup Applications, and uncheck Handle_ctrl, as shown below, to permanently disable the controller control program.





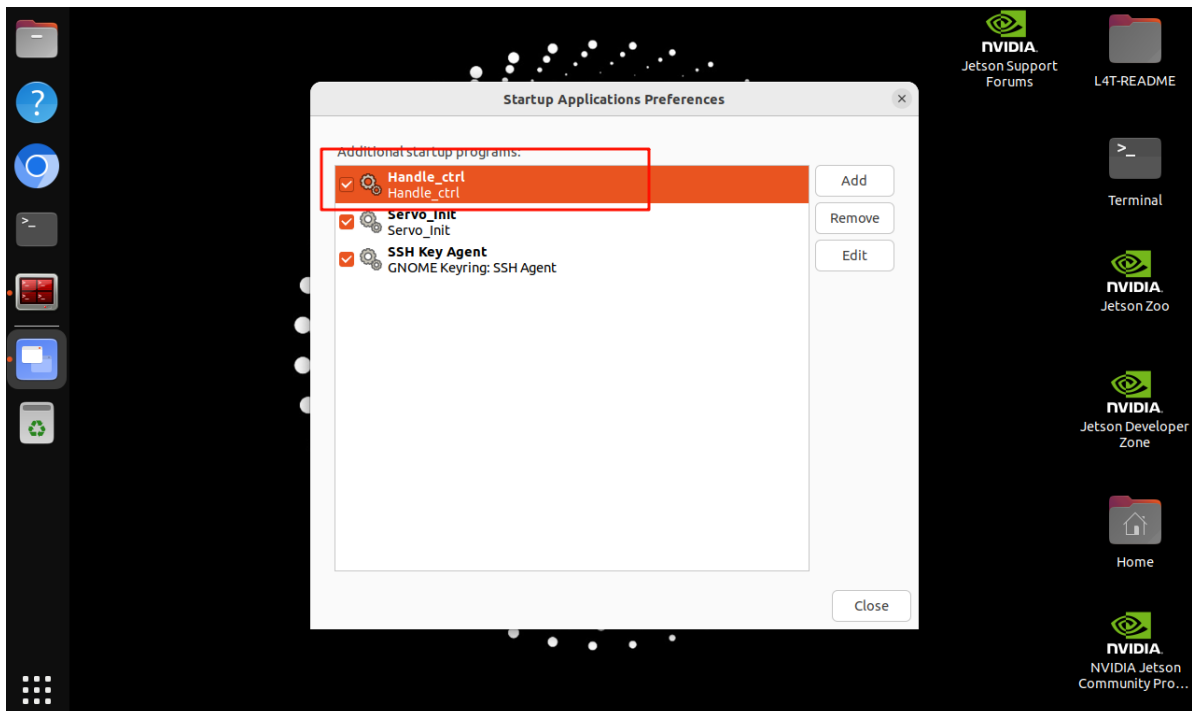
- Raspberry Pi 5

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

2.4. Permanently enable the handle control program to start automatically

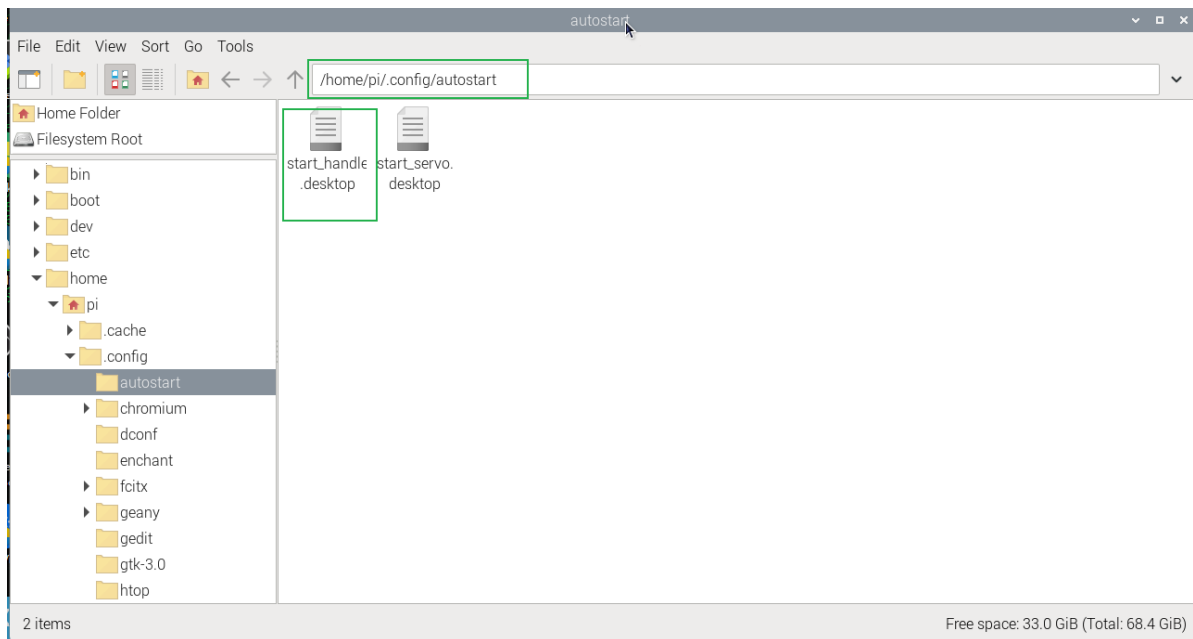
- jetson user

Open the Ubuntu system's applications, search for Startup Applications, and check the box next to Handle_ctrl, as shown below. This will automatically start the program the next time the system boots.



- 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
```



2.5. Temporarily enabling the handle control program

- Jetson User

If you need to manually enable the handle control program, first open the Ubuntu terminal and enter the following command:

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

- Raspberry Pi 5

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