

GPIO library installation

GPIO library installation

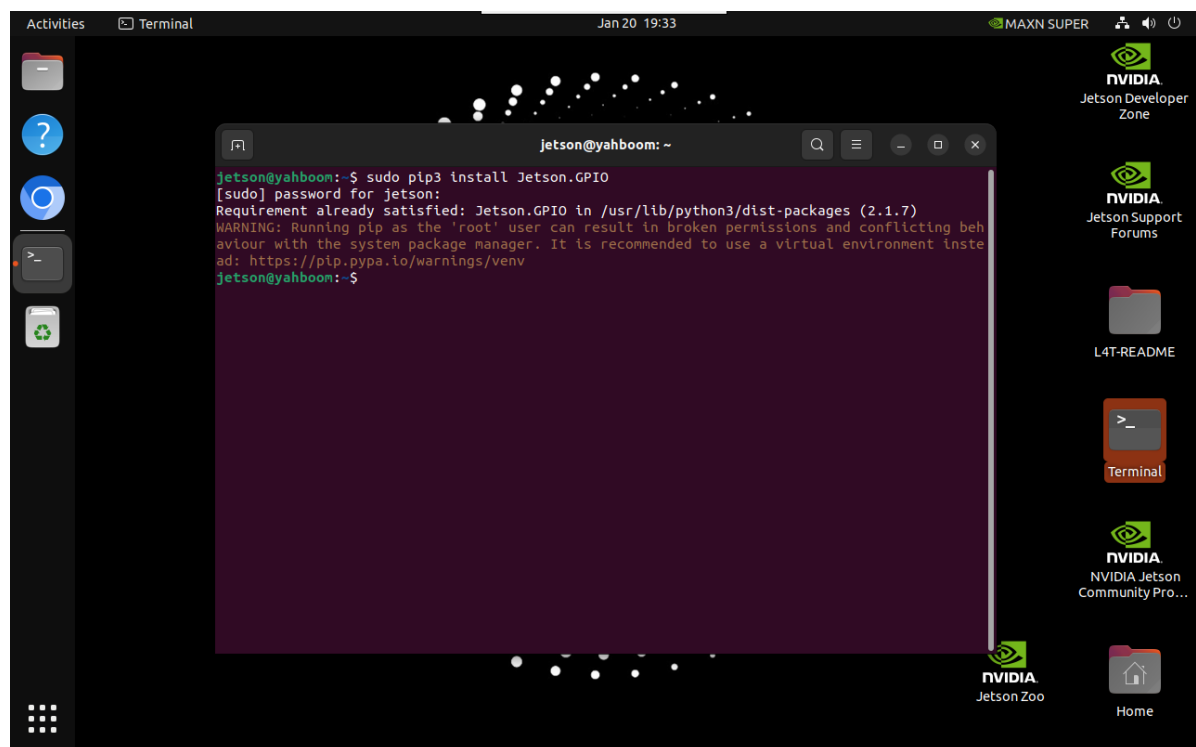
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1. Install Jetson.GPIO library

The system installs Jetson.GPIO library by default, so you can skip this step.

1.1. Automatic installation

```
sudo pip3 install Jetson.GPIO
```



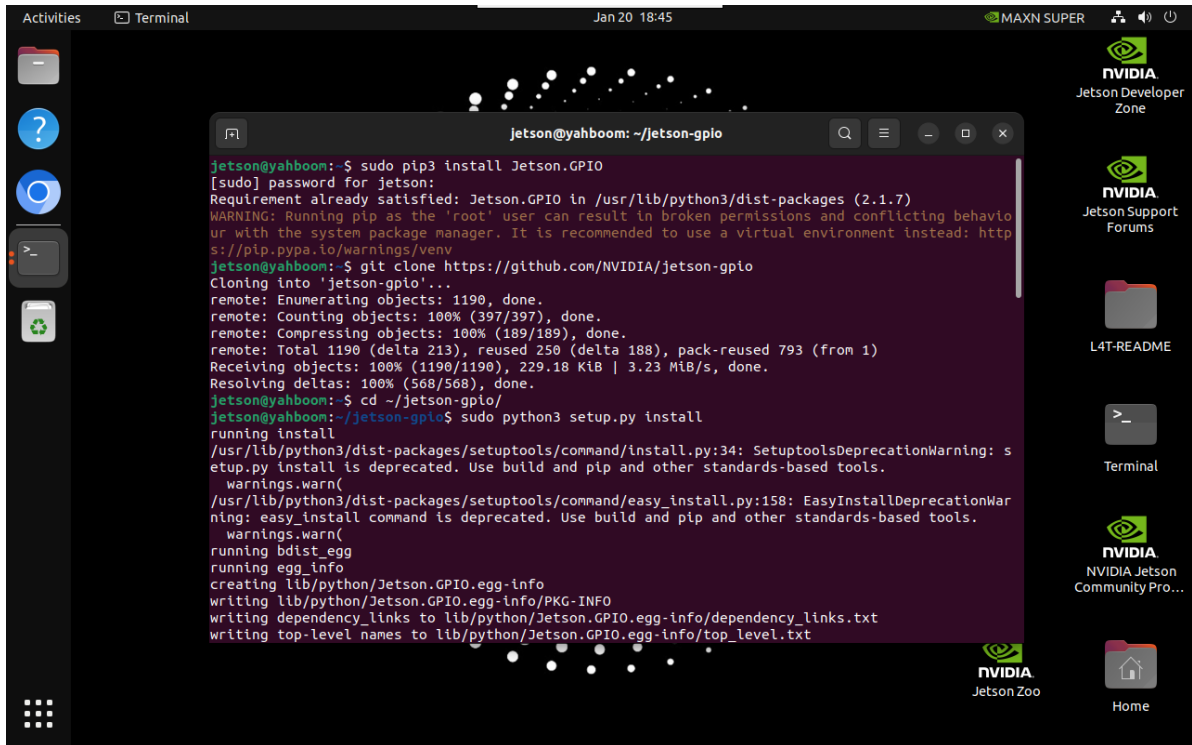
1.2. Manual installation

It is recommended to use the automatic installation method. Manual installation may not be the latest version.

```
git clone https://github.com/NVIDIA/jetson-gpio
```

```
cd ~/jetson-gpio/
```

```
sudo python3 setup.py install
```

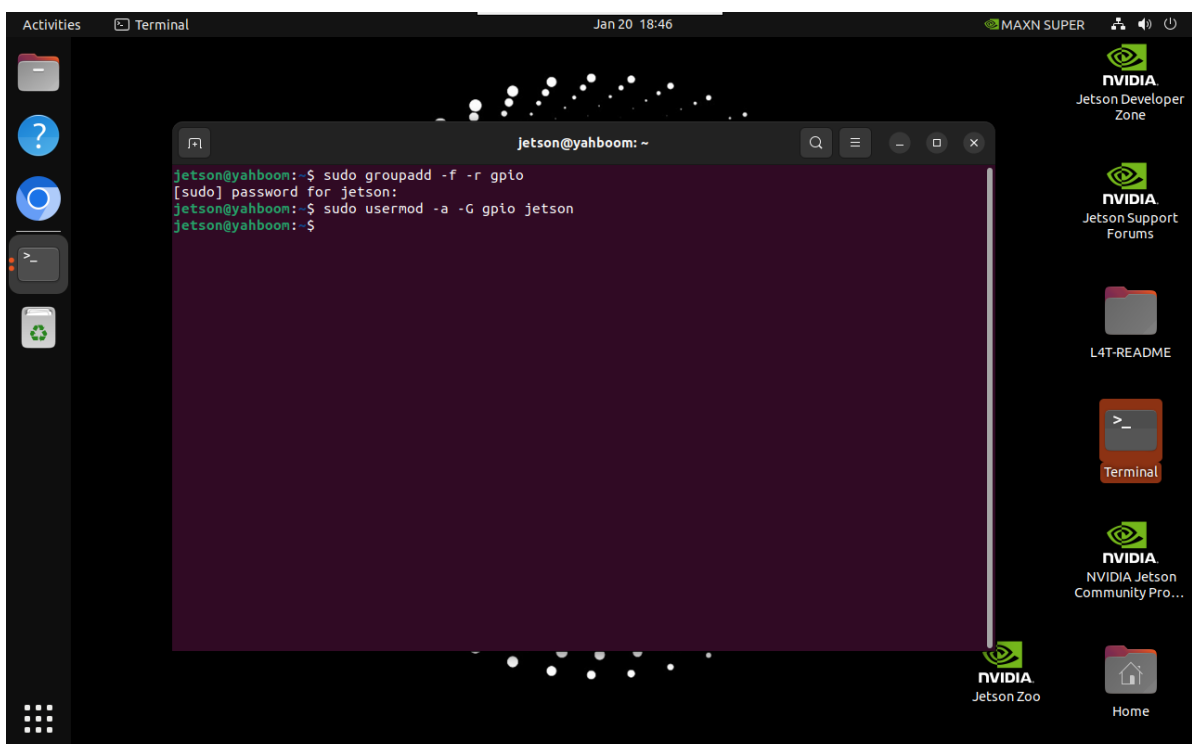


```
jetson@yahboom: ~/jetson-gpio
jetson@yahboom:~$ sudo pip3 install Jetson.GPIO
[sudo] password for jetson:
Requirement already satisfied: Jetson.GPIO in /usr/lib/python3/dist-packages (2.1.7)
WARNING: Running pip as the 'root' user can result in broken permissions and conflicting behavior with the system package manager. It is recommended to use a virtual environment instead: http://pip.pypa.io/warnings/venv
jetson@yahboom:~$ git clone https://github.com/NVIDIA/jetson-gpio
Cloning into 'jetson-gpio'...
remote: Enumerating objects: 1190, done.
remote: Counting objects: 100% (397/397), done.
remote: Compressing objects: 100% (189/189), done.
remote: Total 1190 (delta 213), reused 250 (delta 188), pack-reused 793 (from 1)
Receiving objects: 100% (1190/1190), 229.18 KiB | 3.23 MiB/s, done.
Resolving deltas: 100% (568/568), done.
jetson@yahboom:~$ cd ~/jetson-gpio/
jetson@yahboom:~/jetson-gpio$ sudo python3 setup.py install
running install
/usr/lib/python3/dist-packages/setuptools/command/install.py:34: SetuptoolsDeprecationWarning: setup.py install is deprecated. Use build and pip and other standards-based tools.
  warnings.warn(
/usr/lib/python3/dist-packages/setuptools/command/easy_install.py:158: EasyInstallDeprecationWarning: easy_install command is deprecated. Use build and pip and other standards-based tools.
  warnings.warn(
running bdist_egg
running egg_info
creating lib/python/Jetson.GPIO.egg-info
writing lib/python/Jetson.GPIO.egg-info/PKG-INFO
writing dependency_links to lib/python/Jetson.GPIO.egg-info/dependency_links.txt
writing top-level names to lib/python/Jetson.GPIO.egg-info/top_level.txt
```

2. Set user permissions

Allow the current system user to access and use the Jetson.GPIO library: where `jetson` is the system user name

```
sudo groupadd -f -r gpio
sudo usermod -a -G gpio jetson
```



```
jetson@yahboom: ~
jetson@yahboom:~$ sudo groupadd -f -r gpio
[sudo] password for jetson:
jetson@yahboom:~$ sudo usermod -a -G gpio jetson
jetson@yahboom:~$
```

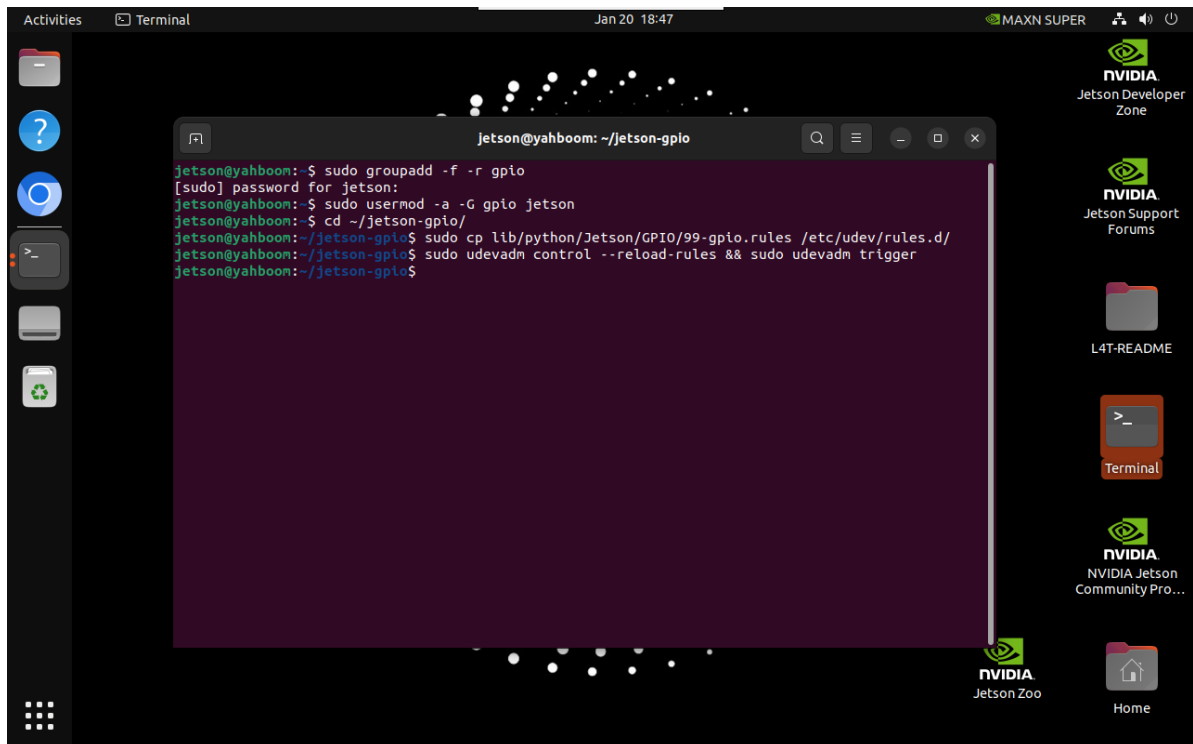
3. Custom rule file

3.1. Copy rule file

```
cd ~/jetson-gpio/  
sudo cp lib/python/Jetson/GPIO/99-gpio.rules /etc/udev/rules.d/
```

3.2, Reload udev rules

```
sudo udevadm control --reload-rules && sudo udevadm trigger
```



4, Set the motherboard model

Currently Jetpack6.2 does not set the motherboard model in advance. You need to set the motherboard model in the terminal before controlling GPIO each time:

```
export JETSON_MODEL_NAME=JETSON_ORIN_NX
```

5, References

<https://github.com/NVIDIA/jetson-gpio>