Install Transbot SE driver library

1. Declaration before installing the driver library

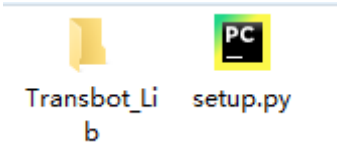
Transbot SE factory image system has already installed the latest driver library, so there is no need to install it again. You only need to install the driver library if you are not using the factory image or if the driver library has updated content.

The driver library storage path that comes with the factory system: ~/Transbot/py_install

Please refer to the following steps for how to install the driver library. Here, the installation of V3.1.0 version is taken as an example.

2. Download the Python driver library file

We have provided Transbot SE Python library -- py_install.zip.

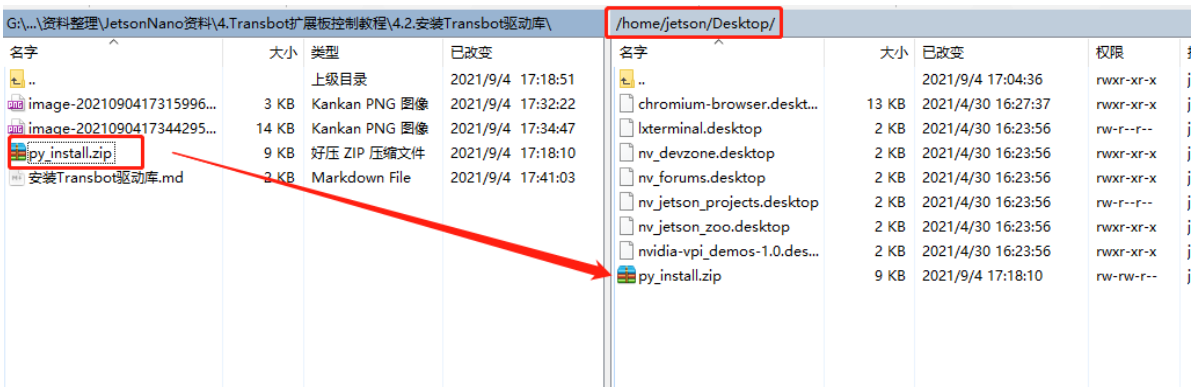


Or you can download this file on our website, [Download]--[Transbot SE Library].

3. Transfer files

3.1jetson

You can transfer file into Jetson NANO system by WinSCP software. This software download link: https://winscp.en.softonic.com/



start installation

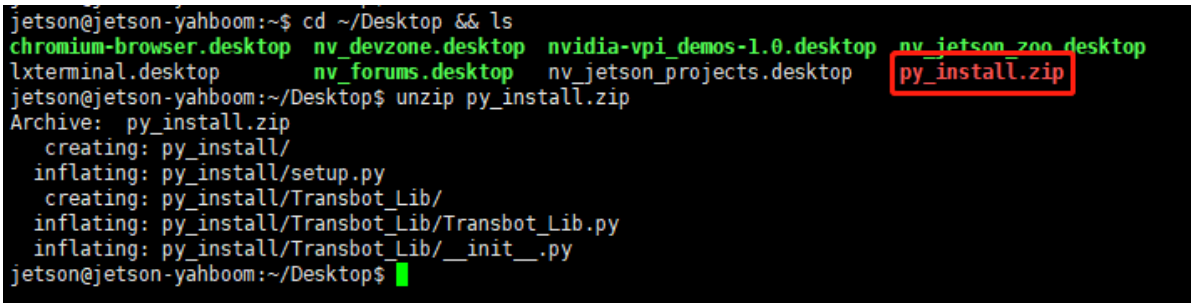
Open the terminal of Jetson Nano and enter the following command to decompress it.

Enter the desktop and check whether the file exists. The target file is in the red box.

```
cd ~/Desktop && ls
```

unzip files

```
unzip py_install.zip
```



Note: The entire documentation routine uses the py_install.zip compressed package placed on the desktop of the Jetson Nano system as an example. If you store the compressed package in a different path, please enter the corresponding directory according to the actual path to operate.

Go to the folder of the driver library

```
cd py_install
```

Run the installation command. If you see the installation version number prompted at the end, the installation is successful. This command will overwrite the previously installed Transbot_Lib driver library.

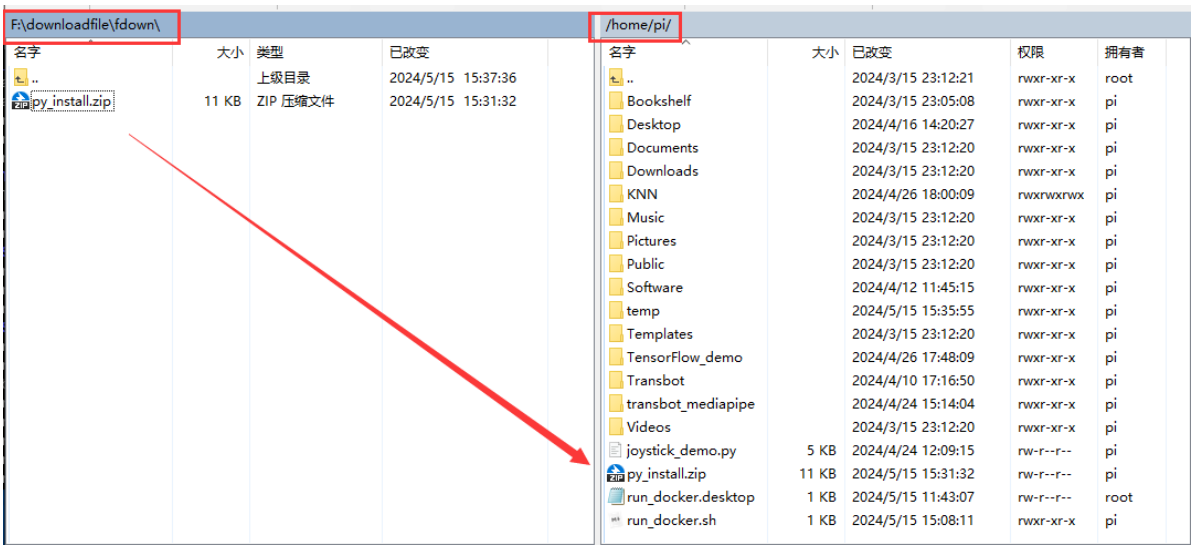
```
sudo python3 setup.py install
```

```
jetson@jetson-yahboom:~/Desktop$ cd py_install
jetson@jetson-yahboom:~/Desktop/py_install$ sudo python3 setup.py install
running install
running bdist_egg
running egg_info
creating Transbot_Lib.egg-info
writing Transbot_Lib.egg-info/PKG-INFO
writing dependency_links to Transbot_Lib.egg-info/dependency_links.txt
writing top-level names to Transbot_Lib.egg-info/top_level.txt
writing manifest file 'Transbot_Lib.egg-info/SOURCES.txt'
reading manifest file 'Transbot_Lib.egg-info/SOURCES.txt'
writing manifest file 'Transbot_Lib.egg-info/SOURCES.txt'
installing library code to build/bdist.linux-aarch64/egg
running install_lib
running build_py
creating build
creating build/lib
creating build/lib/Transbot_Lib
copying Transbot_Lib/__init__.py -> build/lib/Transbot_Lib
copying Transbot_Lib/Transbot_Lib.py -> build/lib/Transbot_Lib
creating build/bdist.linux-aarch64
creating build/bdist.linux-aarch64/egg
creating build/bdist.linux-aarch64/egg/Transbot_Lib
copying build/lib/Transbot_Lib/__init__.py -> build/bdist.linux-aarch64/egg/Transbot_Lib
copying build/lib/Transbot_Lib/Transbot_Lib.py -> build/bdist.linux-aarch64/egg/Transbot_Lib
byte-compiling build/bdist.linux-aarch64/egg/Transbot_Lib/__init__.py to __init__.cpython-36.pyc
byte-compiling build/bdist.linux-aarch64/egg/Transbot_Lib/Transbot_Lib.py to Transbot_Lib.cpython-36.pyc
creating build/bdist.linux-aarch64/egg/EGG-INFO
copying Transbot_Lib.egg-info/PKG-INFO -> build/bdist.linux-aarch64/egg/EGG-INFO
copying Transbot_Lib.egg-info/SOURCES.txt -> build/bdist.linux-aarch64/egg/EGG-INFO
copying Transbot_Lib.egg-info/dependency_links.txt -> build/bdist.linux-aarch64/egg/EGG-INFO
copying Transbot_Lib.egg-info/top_level.txt -> build/bdist.linux-aarch64/egg/EGG-INFO
zip_safe flag not set; analyzing archive contents...
creating dist
creating 'dist/Transbot_Lib-3.1.0-py3.6.egg' and adding 'build/bdist.linux-aarch64/egg' to it
removing 'build/bdist.linux-aarch64/egg' (and everything under it)
Processing Transbot_Lib-3.1.0-py3.6.egg
Copying Transbot_Lib-3.1.0-py3.6.egg to /usr/local/lib/python3.6/dist-packages
Removing Transbot-Lib 2.5.3 from easy-install.pth file
Adding Transbot-Lib 3.1.0 to easy-install.pth file

Installed /usr/local/lib/python3.6/dist-packages/Transbot_Lib-3.1.0-py3.6.egg
Processing dependencies for Transbot-Lib==3.1.0
Finished processing dependencies for Transbot-Lib==3.1.0
jetson@jetson-yahboom:~/Desktop/py_install$
```

3.2 Raspberry Pi 5

You can transfer file into Jetson NANO system by WinSCP software. This software download link: https://winscp.en.softonic.com/

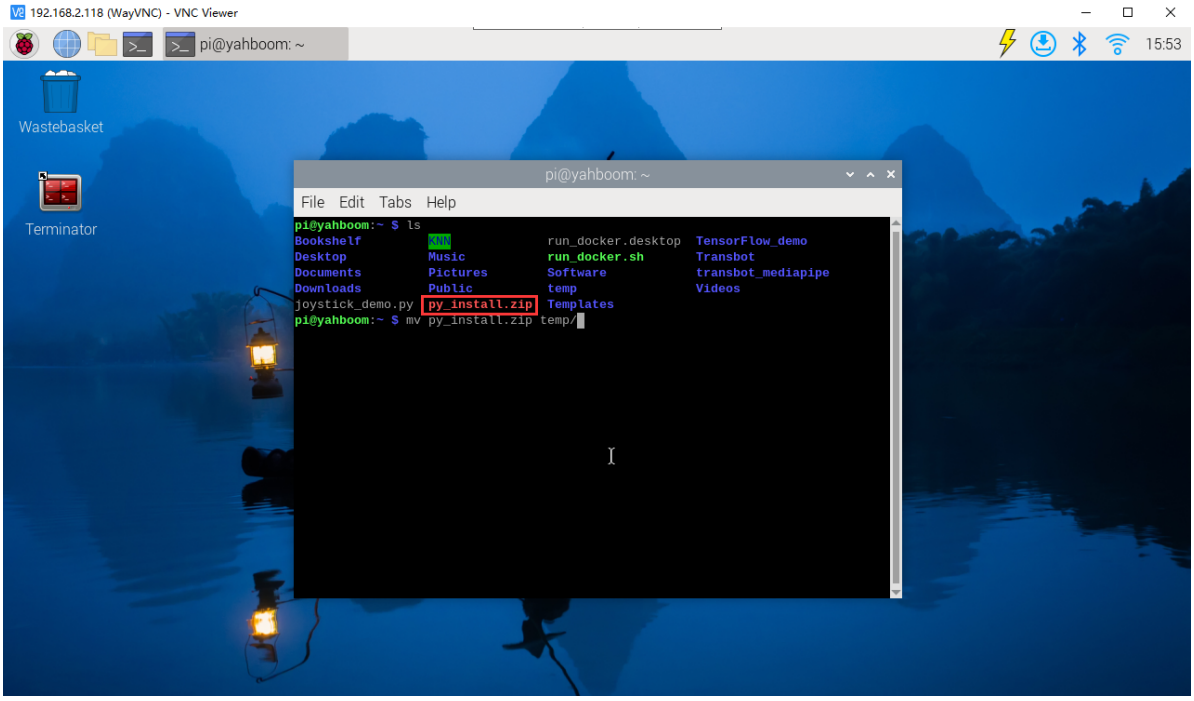


start installation

Open the Raspberry Pi terminal, check whether the file exists, and move the driver library to the Raspberry Pi's temp directory

```
ls
```

```
mv py_install.zip temp/
```



Enter docker

Note: If you have a terminal that automatically starts docker, you can directly enter the temp directory in docker to view it. There is no need to manually start docker

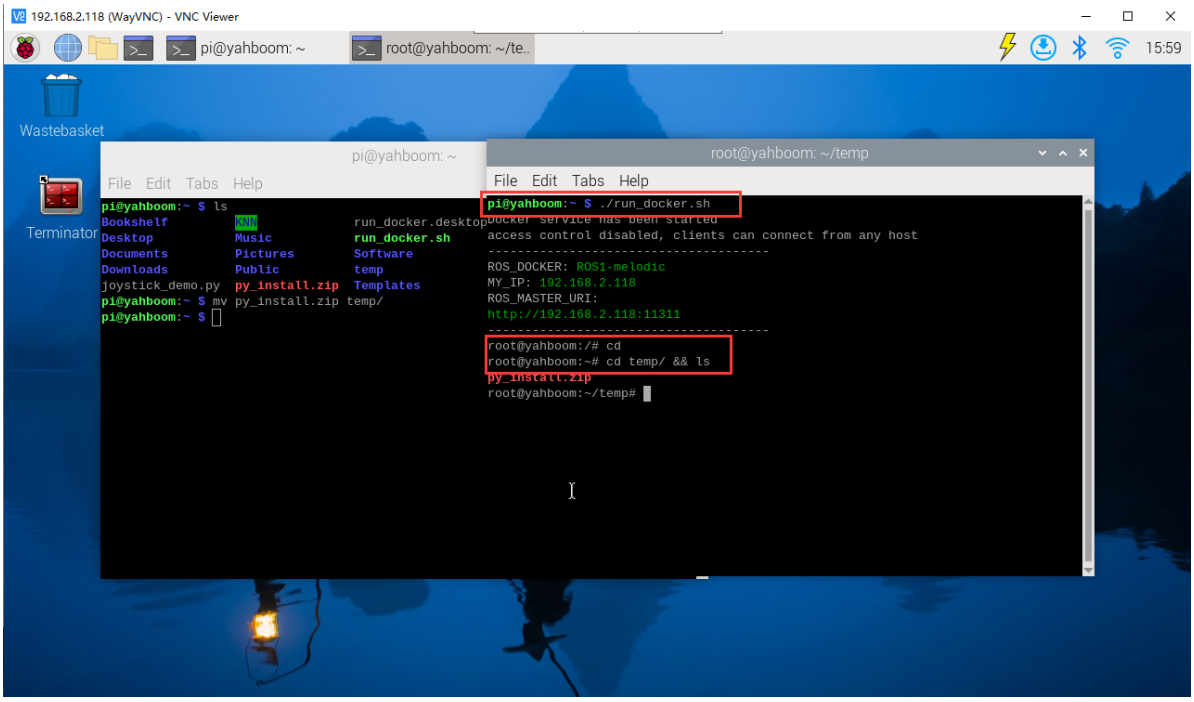
Start docker manually

```
./run_docker.sh
```

Enter the temp directory to see if the file exists

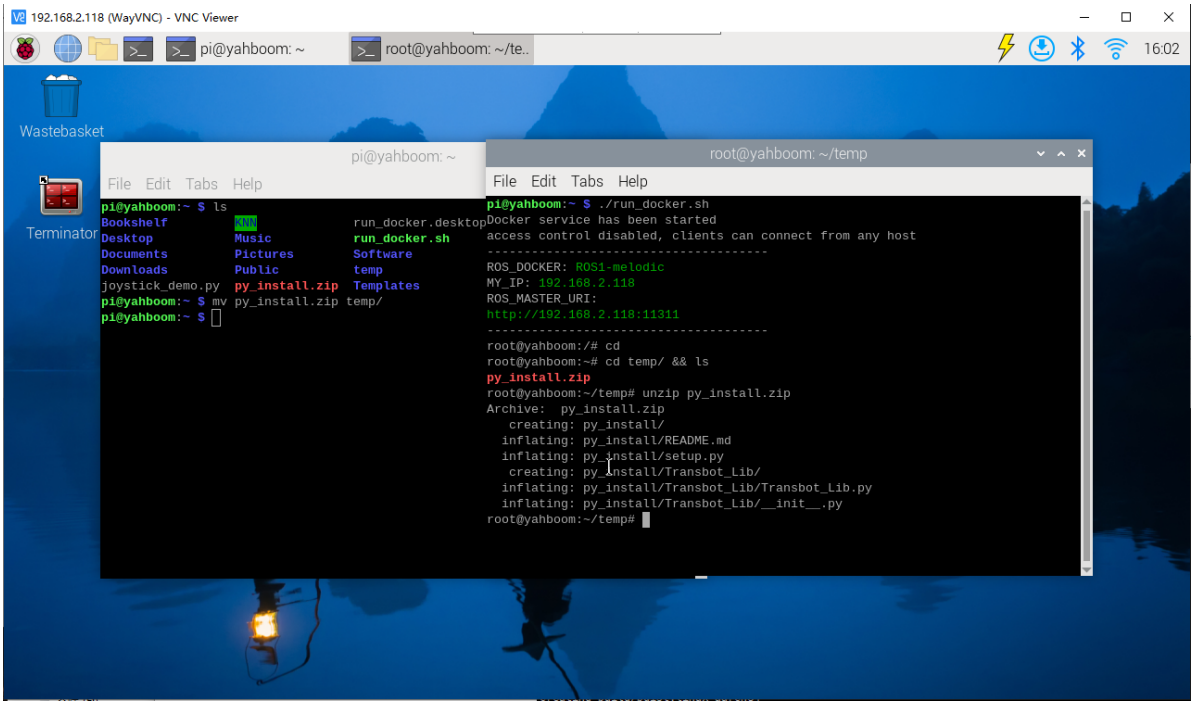
```
cd
```

```
cd temp/ && ls
```



Unzip driver files

```
unzip py_install.zip
```



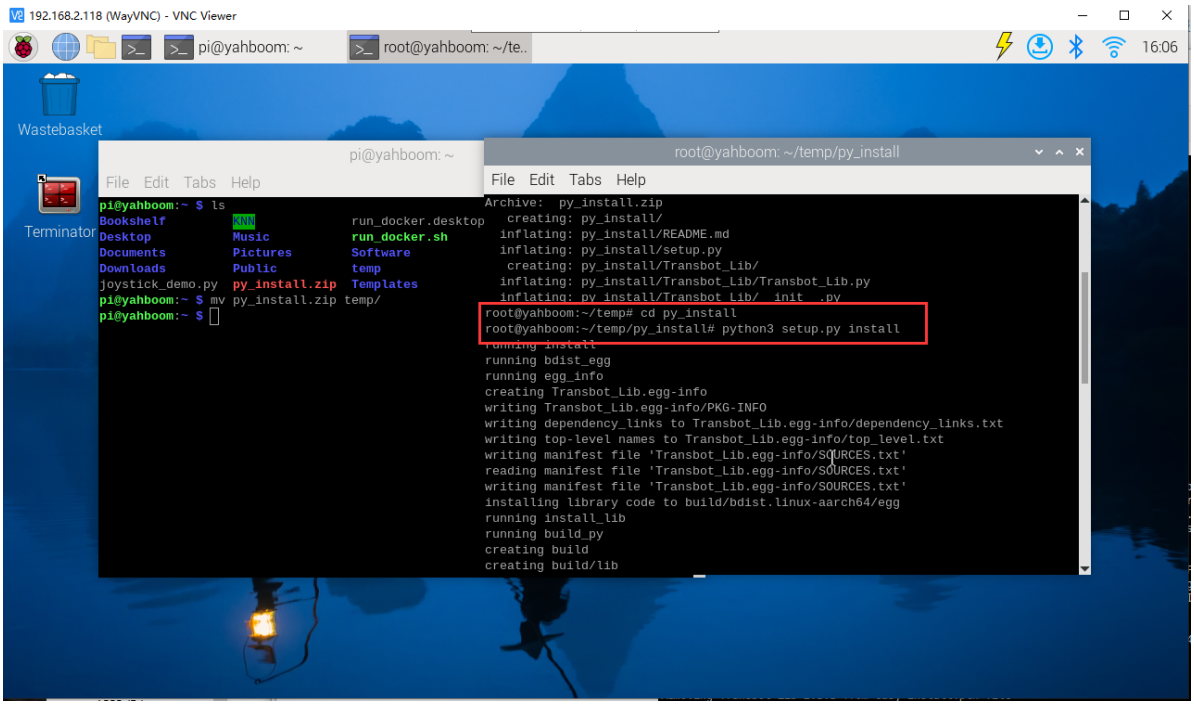
Note: The entire documentation routine uses the py_install.zip compressed package on Raspberry Pi 5 as an example. If you store the compressed package in a different path, please enter the corresponding directory according to the actual path to operate.

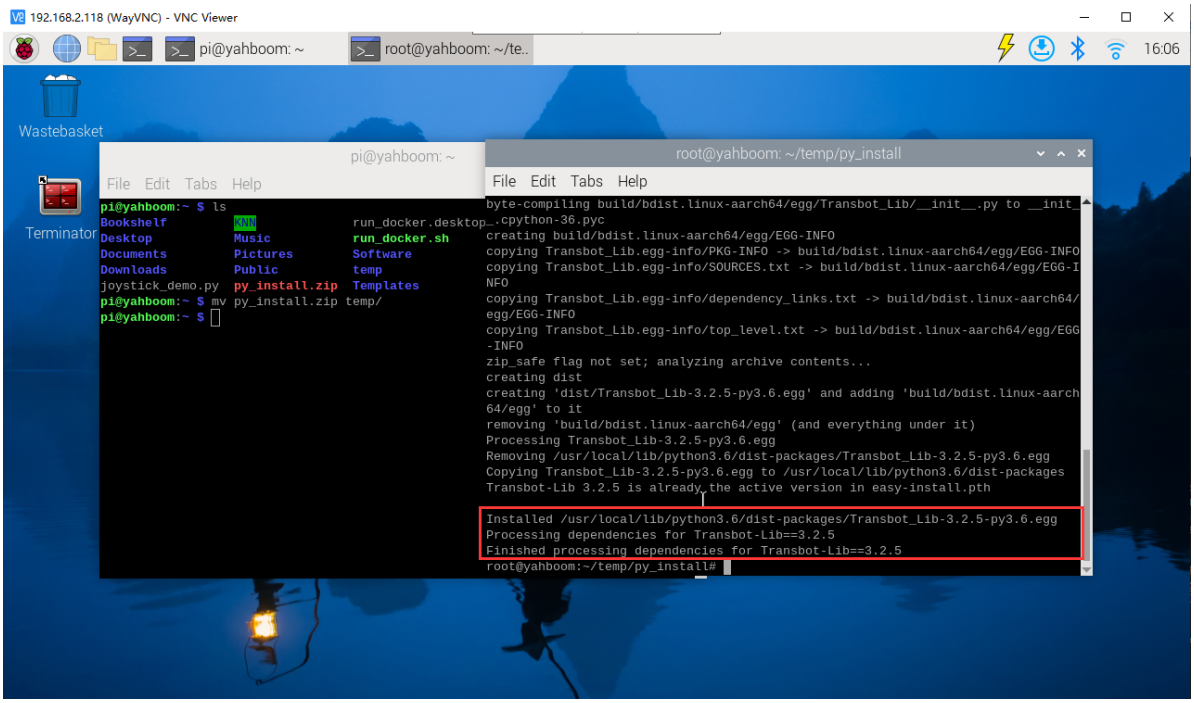
Go to folder

```
cd py_install
```

Run the installation command. If you see the installation version number prompted at the end, the installation is successful. This command will overwrite the previously installed Transbot_Lib driver library.

```
python3 setup.py install
```

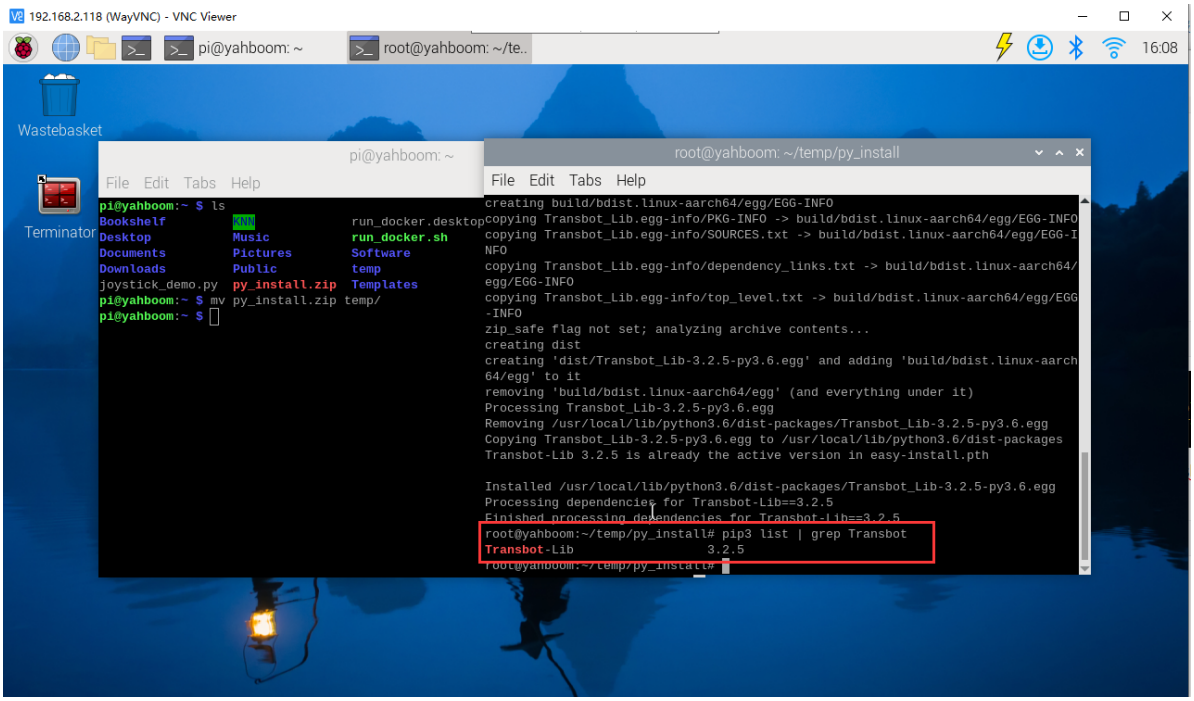




4. Check version

Enter the following command in the terminal to check the version number of Transbot-Lib. If you see that the version number is the same as the one prompted above, it is enough.

```
pip3 list | grep Transbot
```



Note: The name of the Transbot SE driver library is Transbot_Lib, but the name found in the python pip list is Transbot-Lib. This does not affect the actual use. Transbot_Lib is still used to import the library in the program.

```
from Transbot_Lib import Transbot
```

6. Basic usage of driver library

Source code path: Transbot/Samples/1.test_transbot.ipynb