

Connect JetsonNano to the monitor, keyboard and mouse, plug in the internet cable or click the wifi icon in the upper right corner of the desktop to connect to wifi.

For example, connecting to a WiFi network, it is recommended to use WiFi to connect to the network.

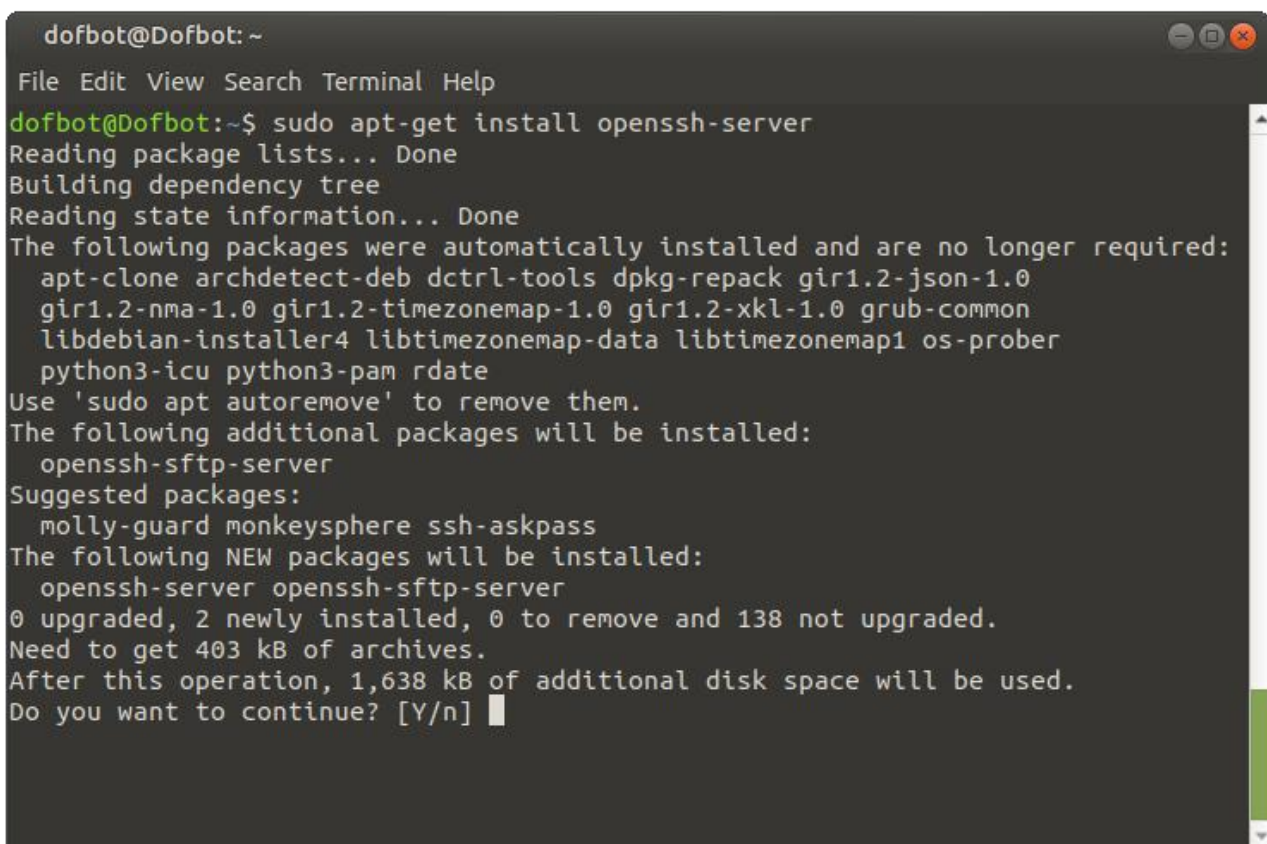
Open the command line terminal in system.(Ctrl+Shift+T).

In this course, we use Win10 system to log in JetsonNano through SSH service as an example. Note that Win10 computer must be in the same local area network as Jetson Nano, that is, connected to the same router.

1. Install SSH service

1.1 Input following command:

sudo apt-get install openssh-server

A screenshot of a terminal window titled 'dofbot@Dofbot: ~'. The terminal shows the command 'sudo apt-get install openssh-server' being executed. The output includes: 'Reading package lists... Done', 'Building dependency tree', 'Reading state information... Done', a list of packages to be removed, a list of additional packages to be installed (openssh-sftp-server), suggested packages, and the final confirmation prompt 'Do you want to continue? [Y/n]'. The cursor is on the 'Y' key.

```
dofbot@Dofbot: ~  
File Edit View Search Terminal Help  
dofbot@Dofbot:~$ sudo apt-get install openssh-server  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  apt-clone archdetect-deb dctrl-tools dpkg-repack gir1.2-json-1.0  
  gir1.2-nma-1.0 gir1.2-timezonemap-1.0 gir1.2-xkl-1.0 grub-common  
  libdebian-installer4 libtimezonemap-data libtimezonemap1 os-prober  
  python3-icu python3-pam rdate  
Use 'sudo apt autoremove' to remove them.  
The following additional packages will be installed:  
  openssh-sftp-server  
Suggested packages:  
  molly-guard monkeysphere ssh-askpass  
The following NEW packages will be installed:  
  openssh-server openssh-sftp-server  
0 upgraded, 2 newly installed, 0 to remove and 138 not upgraded.  
Need to get 403 kB of archives.  
After this operation, 1,638 kB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

If the above prompt appears, enter “Y” and press Enter to confirm.

1.2 Restart SSH

Input following command:

sudo service ssh restart

1.3 Add the SSH service to the boot service

Input following command:

sudo systemctl enable ssh

```
dofbot@dofbot:~$ sudo service ssh restart
dofbot@dofbot:~$ sudo systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /lib/systemd/sy
stemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable ssh
dofbot@dofbot:~$
```

2. Get the IP address of the Raspberry Pi

2.1 Input following command on Raspberry Pi to install network tools

sudo apt install net-tools

```
dofbot@dofbot:~$ sudo apt install net-tools
[sudo] password for dofbot:
Sorry, try again.
[sudo] password for dofbot:
Sorry, try again.
[sudo] password for dofbot:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apt-clone archdetect-deb dctrl-tools dpkg-repack gir1.2-json-1.0
  gir1.2-nma-1.0 gir1.2-timzonemap-1.0 gir1.2-xkl-1.0 grub-common
  libdebian-installer4 libtimzonemap-data libtimzonemap1 os-prober
  python3-icu python3-pam rdate
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  net-tools
0 upgraded, 1 newly installed, 0 to remove and 138 not upgraded.
```

2.2 Input following command to check IP address

ifconfig

```

dofbot@Dofbot: ~
File Edit View Search Terminal Help
dofbot@Dofbot:~$ ifconfig
eth0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether dc:a6:32:71:c8:e0 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 254 bytes 21432 (21.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 254 bytes 21432 (21.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.2.102 netmask 255.255.255.0 broadcast 192.168.2.255
    inet6 fe80::368a:7ac0:d4ad:773b prefixlen 64 scopeid 0x20<link>
    ether dc:a6:32:71:c8:e2 txqueuelen 1000 (Ethernet)
    RX packets 5517 bytes 1046811 (1.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1536 bytes 1215437 (1.2 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

dofbot@Dofbot:~$

```

Check wlan0, you can see that the IP address of the system is 192.168.2.101 behind inet. If you connected to a network cable, please check the IP address at eth0.

3. Install Putty on computer

3.1 Download Putty package on website.

<https://www.chiark.greenend.org.uk/~sgtatham/putty/>

PuTTY: a free SSH and Telnet client

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PuTTY is a free implementation of SSH and Telnet for Windows and Unix platforms, along with an xterm terminal emulator. It is written and maintained primarily by [Simon Tatham](#).

The latest version is 0.74 [Download it here.](#)

LEGAL WARNING: Use of PuTTY, PSCP, PSFTP and Plink is illegal in countries where encryption is outlawed. We believe it is legal to use PuTTY, PSCP, PSFTP and Plink in England and Wales and in many other countries, but we are not lawyers, and so if in doubt you should seek legal advice before downloading it. You may find useful information at cryptolaw.org, which collects information on cryptography laws in many countries, but we can't vouch for its correctness.

Use of the Telnet-only binary (PuTTYtel) is unrestricted by any cryptography laws.

Latest news

2020-06-27 PuTTY 0.74 released

PuTTY 0.74, released today, is a bug-fix and security release. It fixes bugs in 0.73, including one possible vulnerability, and also adds a [new configuration option](#) to mitigate a minor information leak in SSH host key policy.

Package files

You probably want one of these. They include versions of all the PuTTY utilities.

(Not sure whether you want the 32-bit or the 64-bit version? Read the [FAQ entry](#).)

MSI ('Windows Installer')

32-bit: [putty-0.74-installer.msi](#) [\(or by FTP\)](#) [\(signature\)](#)

64-bit: [putty-64bit-0.74-installer.msi](#) [\(or by FTP\)](#) [\(signature\)](#)

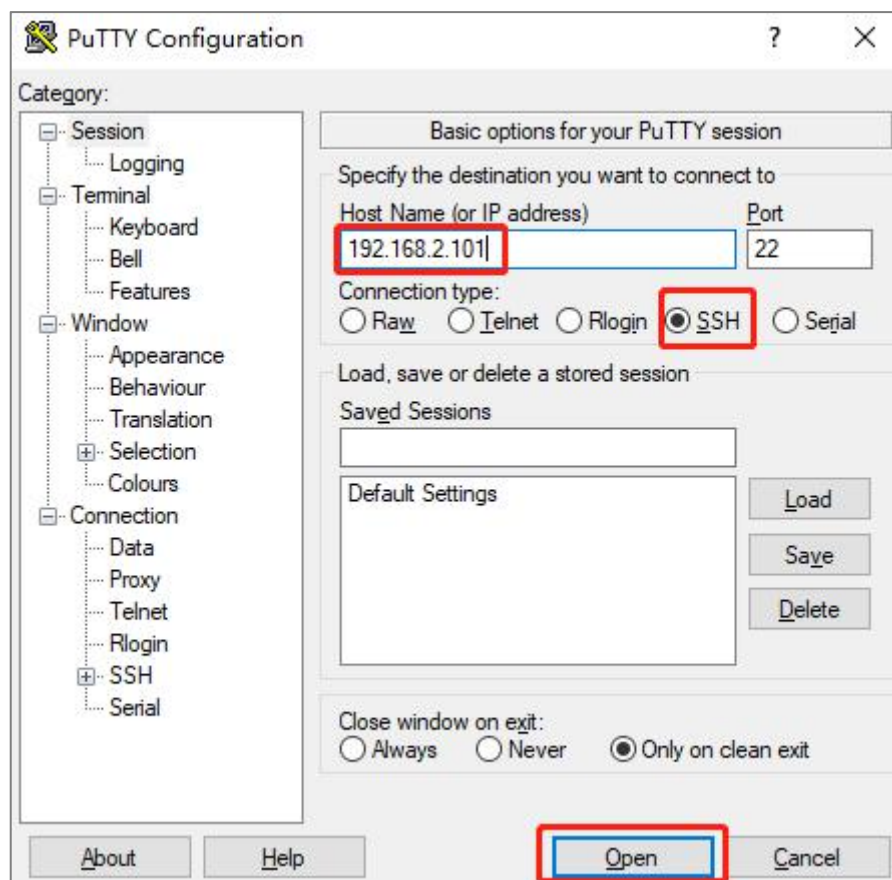
Unix source archive

.tar.gz: [putty-0.74.tar.gz](#) [\(or by FTP\)](#) [\(signature\)](#)

3.2 After the download is complete, you can install it directly

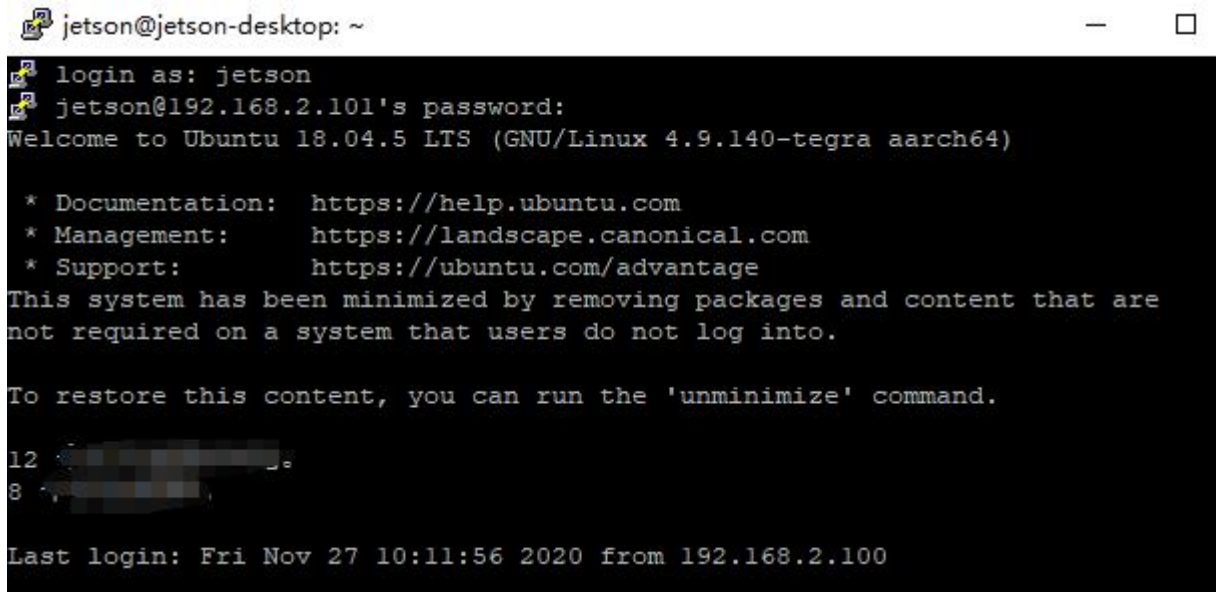
4. Log into system by Putty

4.1 Double-click to open Putty on the computer, select the SSH connection method, and fill your IP address in the Host Name column.



4.2 If any prompt appears, select "YES".

4.3 Input the user name and password. (Password will not be displayed here) Just enter it directly and press "Enter" to confirm.

A terminal window titled 'jetson@jetson-desktop: ~' with standard window controls. The terminal shows the login process for user 'jetson'. It prompts for the password, which is masked with asterisks. After successful login, it displays the Ubuntu version (18.04.5 LTS) and kernel information (GNU/Linux 4.9.140-tegra aarch64). It also provides links for documentation, management, and support. A message states that the system is minimized and provides instructions to run 'unminimize' to restore content. The prompt changes to 'jetson@192.168.2.101's password:' and the password is entered. The terminal shows the last login time and IP address.

```
jetson@jetson-desktop: ~  
login as: jetson  
jetson@192.168.2.101's password:  
Welcome to Ubuntu 18.04.5 LTS (GNU/Linux 4.9.140-tegra aarch64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:       https://ubuntu.com/advantage  
This system has been minimized by removing packages and content that are  
not required on a system that users do not log into.  
  
To restore this content, you can run the 'unminimize' command.  
12  
8  
Last login: Fri Nov 27 10:11:56 2020 from 192.168.2.100
```

4.4 When you see the above picture, it means that we have successfully logged in to Jetson Nano system.