

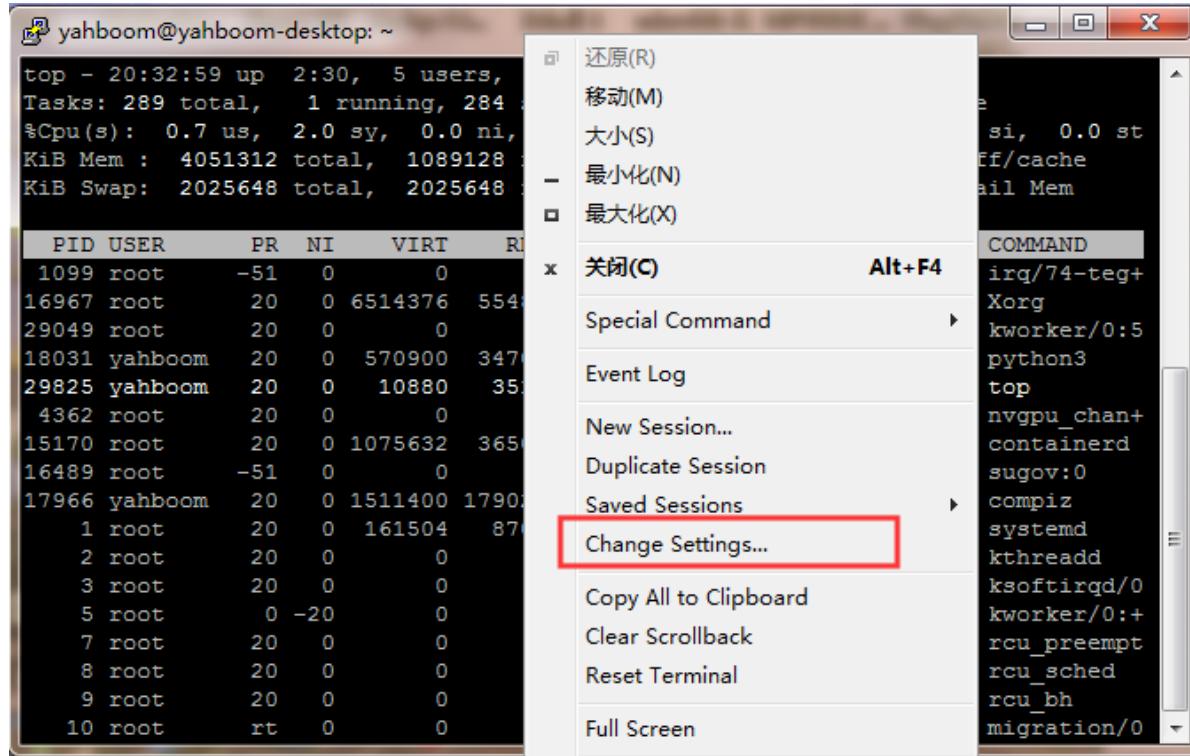
Network Configuration

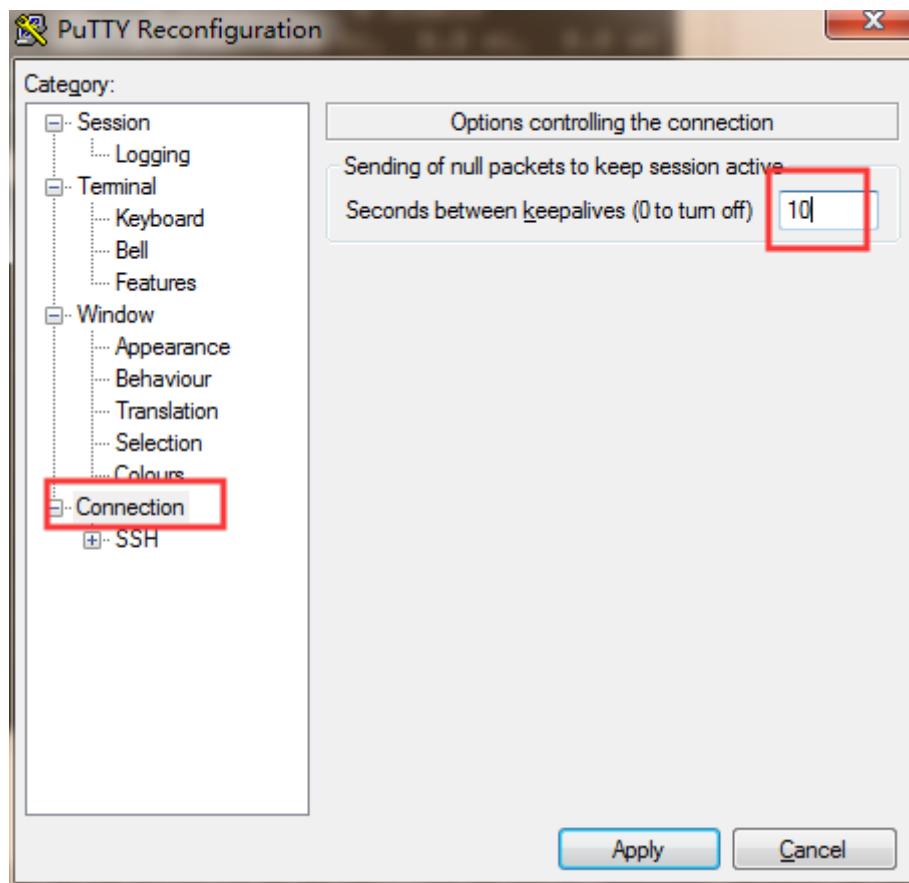
1. Remote login.

Choose tools such as PuTTY, SSH, and Xshell to remotely log in according to your preferences. The following is an example of the PuTTY tool. Note: If you find that the computer cannot be remotely accessed, you can try ping each other and view the IP address command on nano: ifconfig.

View local IP address cmd command under Windows: ipconfig. After knowing the IP address of the other party, ping 192.168.1.xx will modify the IP address based on the actual command

If you find that putty often drops automatically, you can try the following methods:





- A. Enter putty and select Connection on the left side
- B. Sending of null packets to keep session active on the right side Set it to 10
(meaning to send an empty packet every ten seconds to maintain connectivity)

2. About updating sources.

Generally speaking, after installing the system, the source should be updated. However, since Jetson Nano uses the aarch64 architecture Ubuntu 18.04.2 LTS system, which is different from the AMD architecture Ubuntu system, and I have not found a perfect domestic source, I do not recommend that you switch sources

There is no source change here, so it is still updated using the default source of Jetson Nano. The update process is very long, everyone can execute the command and do other things. The following two actions are recommended to be carried out before starting an AI project, otherwise installing some libraries may result in missing installation addresses and frequent errors in the future.

sudo apt-get update

```
nano@nano-desktop: ~
[
获取:20 http://ports.ubuntu.com/ubuntu-ports bionic-security InRelease [88.7 kB]
获取:21 http://ports.ubuntu.com/ubuntu-ports bionic/main arm64 Packages [975 kB]
获取:22 http://ports.ubuntu.com/ubuntu-ports bionic/main Translation-en [516 kB]
获取:23 http://ports.ubuntu.com/ubuntu-ports bionic/main Translation-zh_CN [67.7 kB]
获取:24 http://ports.ubuntu.com/ubuntu-ports bionic/main arm64 DEP-11 Metadata [472 kB]
获取:25 http://ports.ubuntu.com/ubuntu-ports bionic/main DEP-11 48x48 Icons [118 kB]
获取:26 http://ports.ubuntu.com/ubuntu-ports bionic/main DEP-11 64x64 Icons [245 kB]
获取:27 http://ports.ubuntu.com/ubuntu-ports bionic/restricted arm64 Packages [664 B]
获取:28 http://ports.ubuntu.com/ubuntu-ports bionic/restricted Translation-en [3,584 B]
获取:29 http://ports.ubuntu.com/ubuntu-ports bionic/restricted Translation-zh_CN [1,188 B]
获取:30 http://ports.ubuntu.com/ubuntu-ports bionic/universe arm64 Packages [8,316 kB]
获取:31 http://ports.ubuntu.com/ubuntu-ports bionic/universe Translation-zh_CN [174 kB]
获取:32 http://ports.ubuntu.com/ubuntu-ports bionic/universe Translation-en [4,941 kB]
获取:33 http://ports.ubuntu.com/ubuntu-ports bionic/universe arm64 DEP-11 Metadata [3,243 kB]
获取:34 http://ports.ubuntu.com/ubuntu-ports bionic/universe DEP-11 48x48 Icons [2,151 kB]
获取:35 http://ports.ubuntu.com/ubuntu-ports bionic/universe DEP-11 64x64 Icons [8,420 kB]
80% [35 icons-64x64 6,698 kB/8,420 kB 80%] 127 kB/s 50秒
]]
```

```
nano@nano-desktop: ~
[
获取:67 http://ports.ubuntu.com/ubuntu-ports bionic-security/main arm64 DEP-11 Metadata [14.9 kB]
获取:68 http://ports.ubuntu.com/ubuntu-ports bionic-security/main DEP-11 48x48 Icons [10.4 kB]
获取:69 http://ports.ubuntu.com/ubuntu-ports bionic-security/main DEP-11 64x64 Icons [20.9 kB]
获取:70 http://ports.ubuntu.com/ubuntu-ports bionic-security/restricted arm64 Packages [668 B]
获取:71 http://ports.ubuntu.com/ubuntu-ports bionic-security/restricted Translation-en [2,192 B]
获取:72 http://ports.ubuntu.com/ubuntu-ports bionic-security/universe arm64 Packages [245 kB]
获取:73 http://ports.ubuntu.com/ubuntu-ports bionic-security/universe Translation-en [139 kB]
获取:74 http://ports.ubuntu.com/ubuntu-ports bionic-security/universe arm64 DEP-11 Metadata [35.8 kB]
获取:75 http://ports.ubuntu.com/ubuntu-ports bionic-security/universe DEP-11 48x48 Icons [16.4 kB]
获取:76 http://ports.ubuntu.com/ubuntu-ports bionic-security/universe DEP-11 64x64 Icons [97.3 kB]
获取:77 http://ports.ubuntu.com/ubuntu-ports bionic-security/multiverse arm64 Packages [1,696 B]
获取:78 http://ports.ubuntu.com/ubuntu-ports bionic-security/multiverse Translation-en [2,060 B]
获取:79 http://ports.ubuntu.com/ubuntu-ports bionic-security/multiverse DEP-11 48x48 Icons [29 B]
获取:80 http://ports.ubuntu.com/ubuntu-ports bionic-security/multiverse DEP-11 64x64 Icons [2,638 B]
已下载 34.8 MB, 耗时 5分 49秒 (99.5 kB/s)
正在读取软件包列表... 完成
nano@nano-desktop:~$
```

sudo apt-get full-upgrade

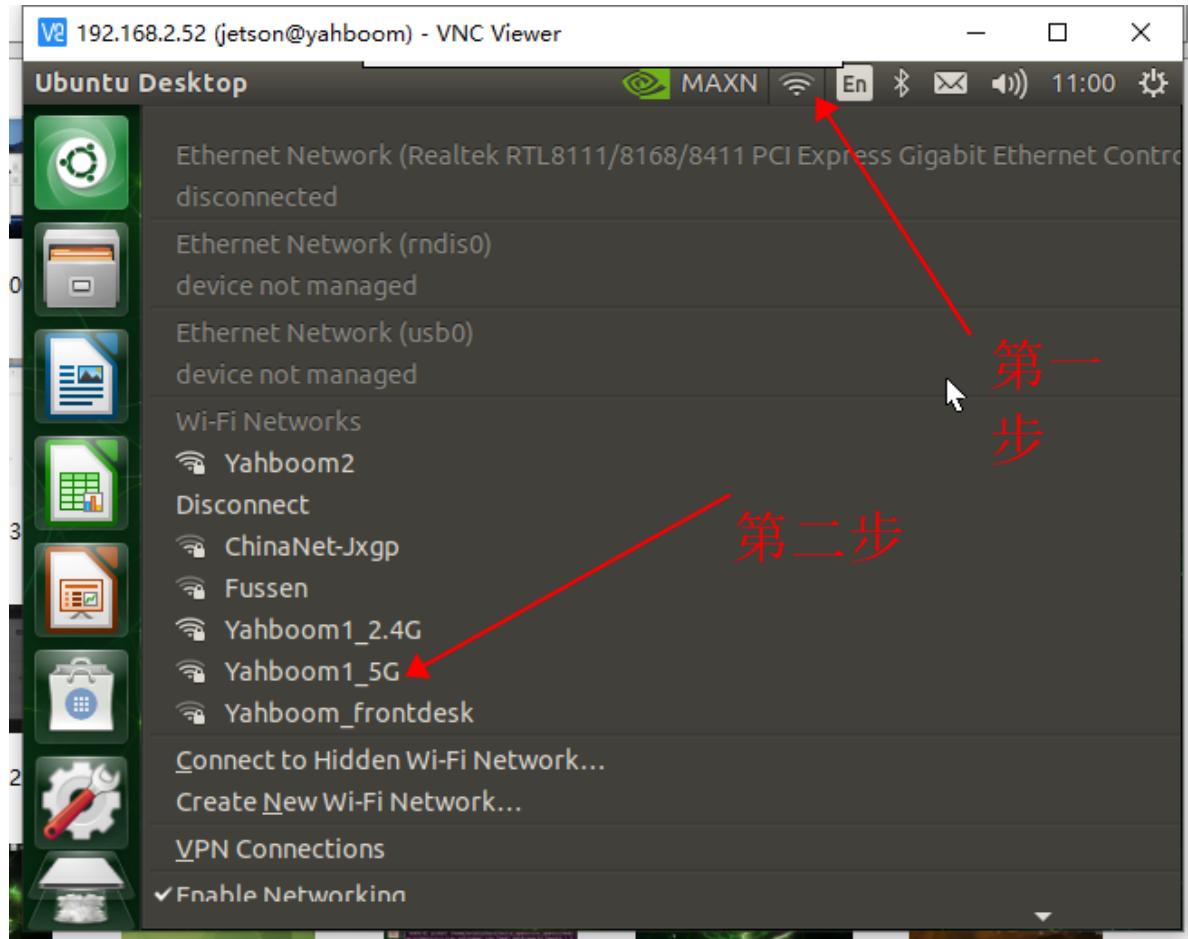
```
nano@nano-desktop: ~
libreoffice-style-tango libreoffice-writer libseccomp2 libsmbclient
libsnapd-glib1 libssl1.0.0 libstdc++-7-dev libstdc++6 libswresample2
libswscale4 libsystemd0 libtiff5 libtsan0 libubsan0 libudev1 libunistring2
libunity-core-6.0-9 libupower-glib3 libwavpack1 libwayland-egl1-mesa
libwbclient0 libwebkit2gtk-4.0-37 libx11-6 libx11-data libx11-dev libx11-doc
libx11-xcb-dev libx11-xcb1 libxcb-composite0 libxcb-damage0 libxcb-dri2-0
libxcb-dri2-0-dev libxcb-dri3-0 libxcb-dri3-dev libxcb-glx0 libxcb-glx0-dev
libxcb-present-dev libxcb-present0 libxcb-randr0 libxcb-randr0-dev
libxcb-render0 libxcb-render0-dev libxcb-res0 libxcb-shape0
libxcb-shape0-dev libxcb-shm0 libxcb-sync-dev libxcb-sync1 libxcb-xfixes0
libxcb-xfixes0-dev libxcb-xinerama0 libxcb-xkb1 libxcb-xv0 libxcb1
libxcb1-dev libxslt1.1 linux-firmware linux-libc-dev login mesa-common-dev
mesa-va-drivers mesa-vdpau-drivers mutter mutter-common nautilus
nautilus-data network-manager network-manager-config-connectivity-ubuntu
nfs-common ntfs-3g openssh-client openssh-server openssh-sftp-server
packagekit packagekit-tools parted passwd plymouth plymouth-label
plymouth-theme-ubuntu-logo policykit-1 poppler-utils pulseaudio
pulseaudio-utils python-gi python3-apport python3-distro-info
python3-distupgrade python3-gi python3-gi-cairo python3-httplib2
python3-problem-report python3-uno python3-update-manager
qt5-gtk-platformtheme resolvconf samba-libs snapd systemd systemd-sysv
thunderbird thunderbird-gnome-support tzdata ubuntu-desktop
ubuntu-drivers-common ubuntu-release-upgrader-core
ubuntu-release-upgrader-gtk ubuntu-software udev unattended-upgrades unity
unity-schemas unity-services uno-libs3 update-manager update-manager-core
upower ure wget wpa_supplicant
升级了 333 个软件包，新安装了 2 个软件包，要卸载 0 个软件包，有 0 个软件包未被升级。
需要下载 426 MB 的归档。
解压缩后会消耗 168 MB 的额外空间。
您希望继续执行吗？ [Y/n] [Y]
```

Enter Y during the process to confirm the update. The second process may take about 2 hours depending on the network situation. Please be patient and wait. After completion, as shown in the following figure

```
nano@nano-desktop: ~
正在设置 python3-distupgrade (1:18.04.32) ...
正在设置 libreoffice-common (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-core (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 ubuntu-release-upgrader-core (1:18.04.32) ...
正在设置 python3-uno (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-gtk3 (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-style-breeze (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-gnome (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-pdfimport (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-draw (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-avmedia-backend-gstreamer (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 ubuntu-release-upgrader-gtk (1:18.04.32) ...
正在设置 update-manager-core (1:18.04.11.10) ...
正在设置 libreoffice-impress (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-math (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-base-core (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-calc (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 update-manager (1:18.04.11.10) ...
正在设置 libreoffice-ogltrans (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 libreoffice-writer (1:6.0.7-0ubuntu0.18.04.5) ...
正在设置 ubuntu-desktop (1.417.1) ...
正在处理用于 libc-bin (2.27-3ubuntu1) 的触发器 ...
正在处理用于 resolvconf (1.79ubuntu10.18.04.3) 的触发器 ...
正在处理用于 initramfs-tools (0.130ubuntu3.7) 的触发器 ...
update-initramfs: Generating /boot/initrd.img-4.9.140-tegra
Warning: couldn't identify filesystem type for fsck hook, ignoring.
/sbin/ldconfig.real: Warning: ignoring configuration file that cannot be opened:
/etc/ld.so.conf.d/aarch64-linux-gnu_EGL.conf: No such file or directory
/sbin/ldconfig.real: Warning: ignoring configuration file that cannot be opened:
/etc/ld.so.conf.d/aarch64-linux-gnu_GL.conf: No such file or directory
nano@nano-desktop:~$
```

The network configuration is now complete

3.Jetson nano connects to WiFi



The first step is to click on the network symbol above. The second step is to select the network we need to connect to, and enter the password. I have already connected to the network of yahboom2Obtain the IP address of the motherboard (when connected to the network)

```
ifconfig
```

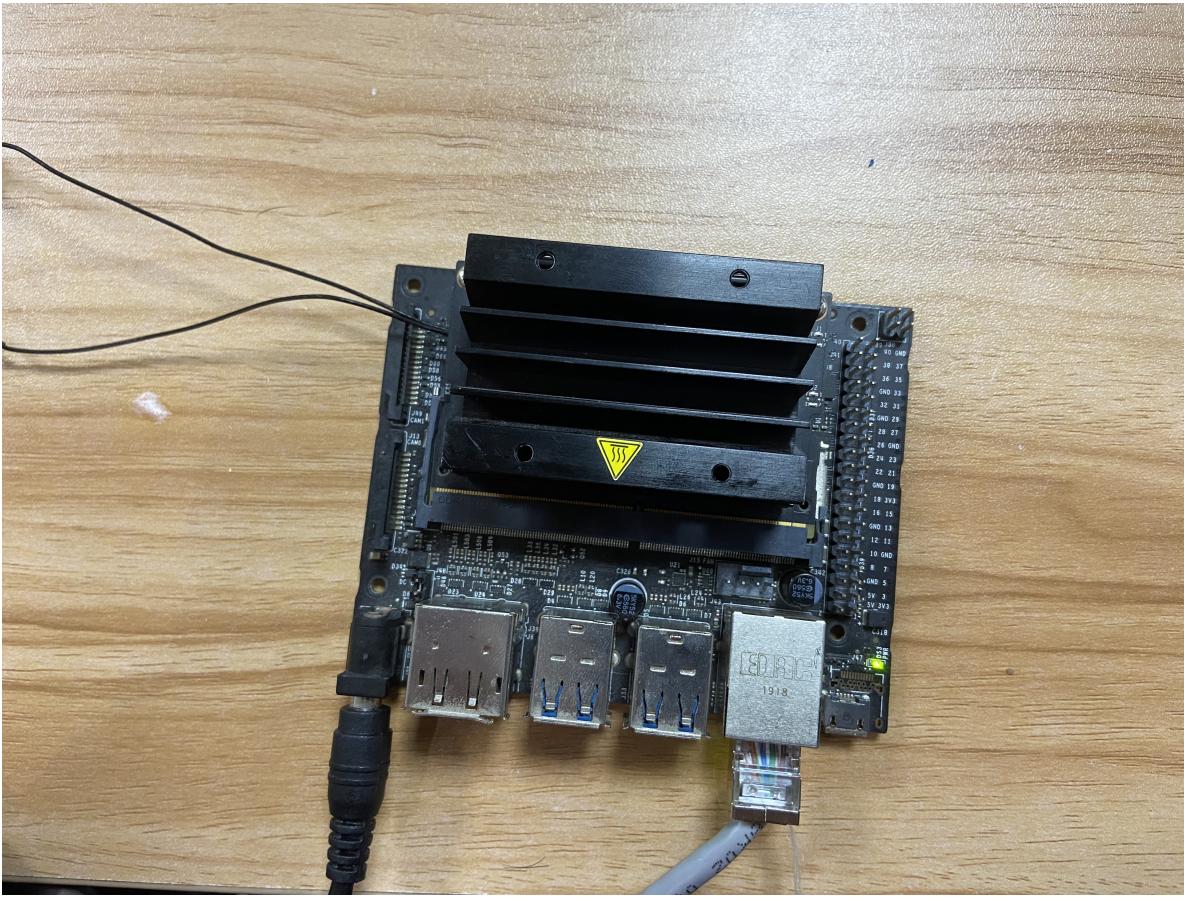
```
jetson@yahboom: ~
ns 0

usb0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
      ether 4a:4c:3a:fd:ea:eb 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
ns 0 Jetson
Developer
nvidia
nvidia-zoo
Suppor
Forum
jetson
jetson-zoo
odroid
jetson
jetson@yahboom:~$
```

Because I am using WiFi, looking at the IP address in the wlan0 line, I can see that my IP address here is 192.168.2.52.

4.Jetson nano connecting network cable

If we want to know the IP address without a display screen, we can use the method of directly plugging in the network cable, and then the computer and a router will also be connected to the network. Download an IP scanning software to perform IP scanning, which is Advanced IP Scanner.



Scanned IP

Advanced IP Scanner			
状态	名称	IP	MAC 地址
禁用	yishufenggangdeMacBoo...	192.168.2.73	84:38:35:56:13:2E
禁用	yishufenggangdeMacBoo...	192.168.2.64	84:38:35:56:13:2E
禁用	yahboomrdz	192.168.2.51	D0:84:66:74:E6:64
禁用	yahboom-4	192.168.2.52	00:04:4B:E7:0C:07
禁用	yahboom-4	192.168.2.88	00:04:4B:E7:0C:07
禁用	yahboom-3	192.168.2.80	40:1C:83:42:2A:5C
禁用	yahboom-2	192.168.2.70	E4:5F:01:0E:23:C6
禁用	yahboom	192.168.2.82	2C:6A:7F:E7:A2:00
禁用	ubuntu-2	192.168.2.67	08:8F:8A:79:9E:16
禁用	ubuntu-14	192.168.2.85	08:8F:96:AE:8F:80
禁用	ubuntu	192.168.2.53	C6:19:55:4D:80:80
禁用	rpi-1	192.168.2.75	C5:F1:95:A1:D3:18
禁用	dengshuaiqideiPhone	192.168.2.79	3E:63:51:3F:99:18
禁用	HAB101	192.168.2.33	18:65:4E:45:58:05
禁用	XWTF9991GFANG421H	192.168.2.58	6C:80:00:01:35:05
禁用	Transbot	192.168.2.97	64:79:F0:90:52:4E
禁用	Transbot	192.168.3.96	1C:1B:85:13:56:FA
禁用	Transbot	192.168.2.50	00:13:F5:F3:C1:18
禁用	DESKTOP-NH96B1F	192.168.2.87	F2:26:75:54:68:9C
禁用	DESKTOP-NH96B1F	192.168.2.86	50:8F:66:5A:32:C4
禁用	DESKTOP-NH96B1F	192.168.2.92	04:42:1A:30:CE:EF
禁用	DESKTOP-GATONQ4V	192.168.2.81	A0:80:FD:11:44:09
禁用	DESKTOP-CFUMO3M	192.168.2.57	00:CF:60:47:0E:8B
禁用	DESKTOP-1	192.168.2.89	48:F3:17:01:82:74
禁用	Blair	192.168.2.90	00:D8:61:D7:3B:36
禁用	Android-5	192.168.2.61	04:9F:F8:2D:58:2A
禁用	Android-2	192.168.2.69	7C:D6:61:F3:C7:54
禁用	Android	192.168.2.91	AE:F1:07:22:09:0F
禁用	7K5SN4QOEGBWPZP	192.168.2.84	50:EB:F6:58:AA:BA
禁用	7K5SN4QOEGBWPZP	192.168.2.77	50:EB:F6:58:AA:BA
禁用	4CE229B8H	192.168.2.95	84:69:93:80:63:CF
禁用	192.168.2.98	192.168.2.98	F0:83:6C:05:45:51
禁用	192.168.2.78	192.168.2.78	D0:85:D3:73:47:F5
禁用	192.168.2.74	192.168.2.74	E0:80:68:B8:3A:C1
禁用	192.168.2.71	192.168.2.71	72:26:F6:0B:D7:24
禁用	192.168.2.62	192.168.2.62	16:D3:91:00:F6:68
禁用	192.168.2.60	192.168.2.60	12:C6:38:41:4A:CF