Lesson 6 Modify Wi-Fi

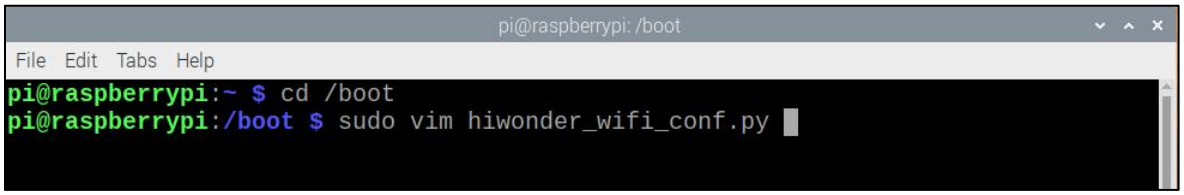
1. Modify Raspberry Pi Wi-Fi

The computer is supposed to connect to the Wi-Fi hotspot named with the first letters “HW” which is launched by Raspberry Pi. When there are multiple robots around, the wrong connection may occur. If you want to modify the default Wi-Fi name and password, please check the following steps.

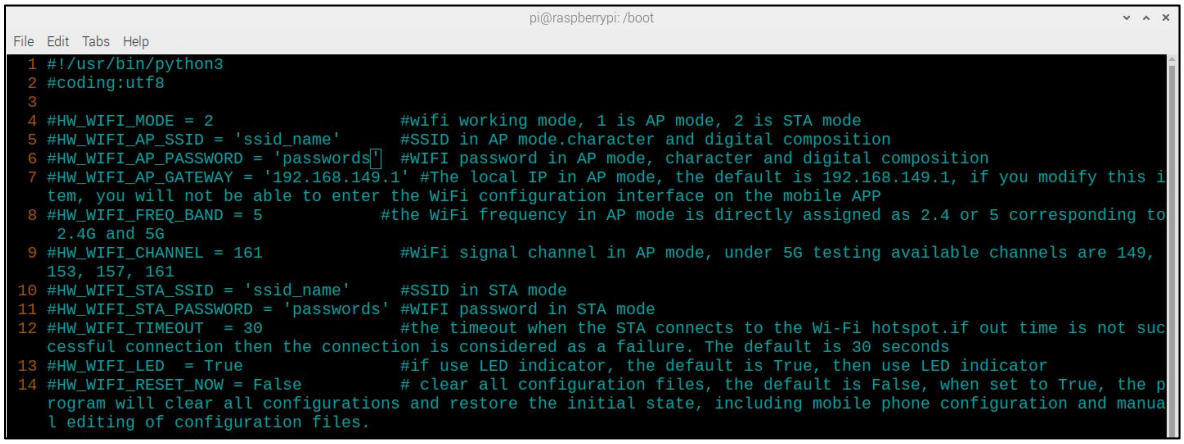
1) Turn on Raspberry Pi, start VNC and then connect to the Raspberry Pi remote desktop.

2) Press “**Ctrl+Alt+T**” to turn on LX terminal.

3) Enter the following command to jump and open the Wi-Fi configuration file with an editor.

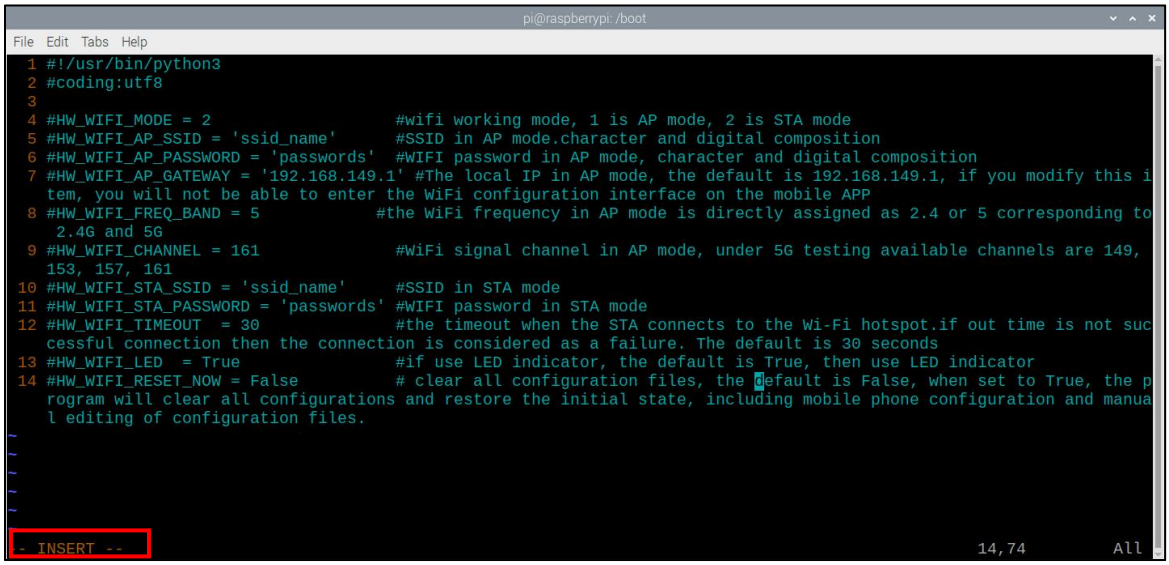


4) Interface as below:

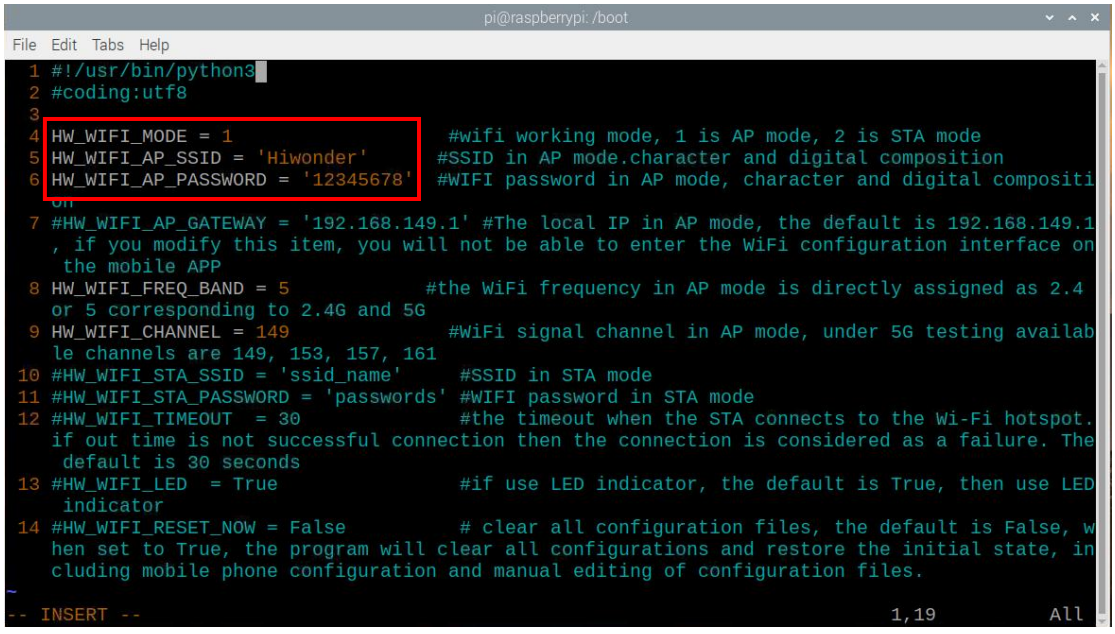


5) Press the "i" on the keyboard and then the "--Insert--" mark will be

displayed on the interface. Please refer to the corresponding notes to modify.



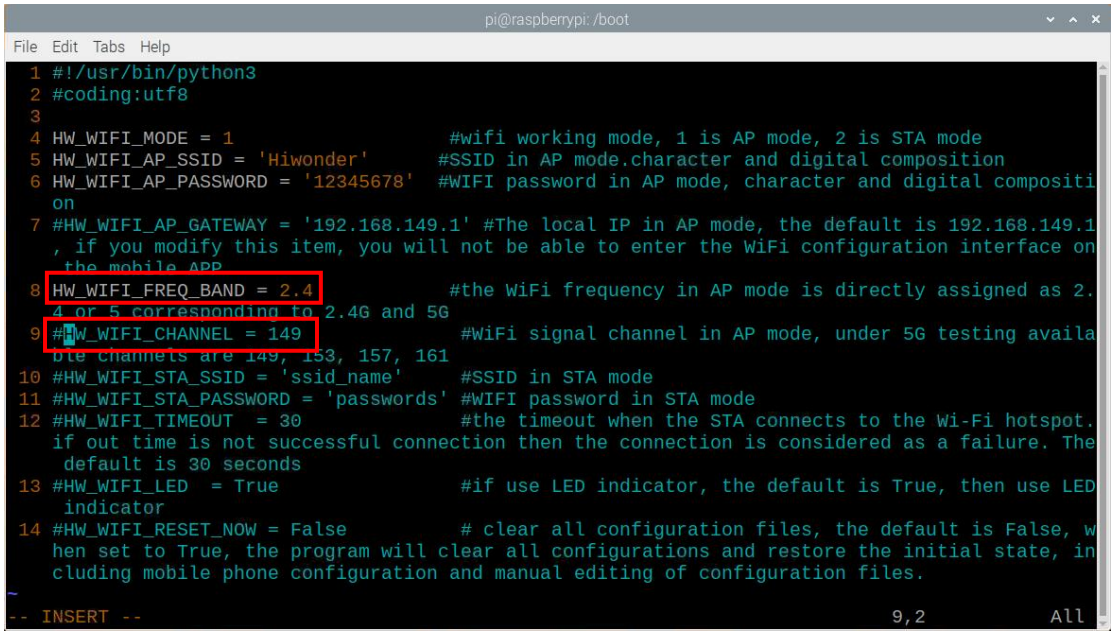
6) If you want to modify the Raspberry Pi name as “Hiwonder” and password as “12345678”, only need to revise the info as shown in the below figure. Do not forget to delete “#” to make it effective.



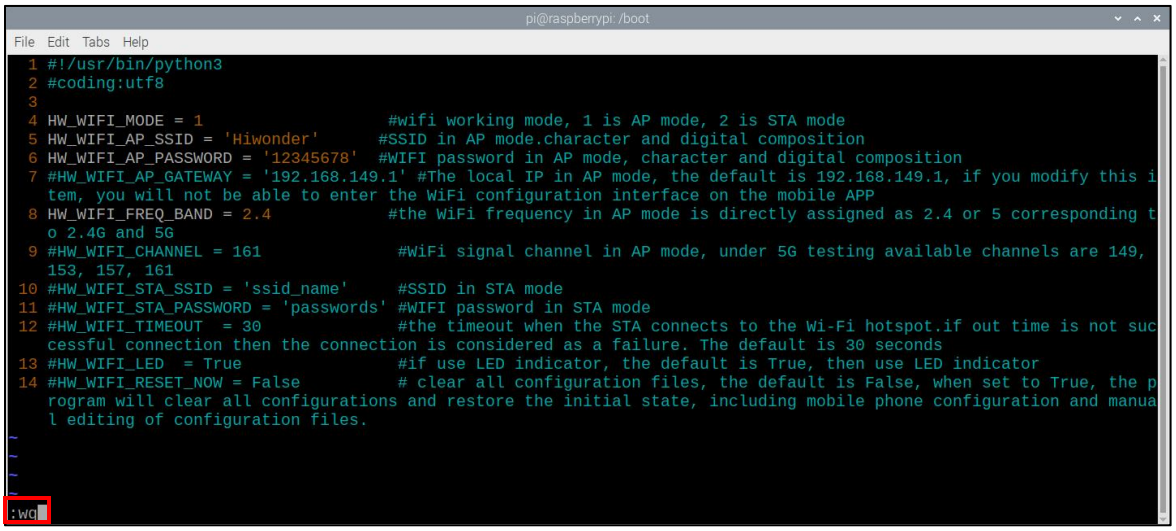
Note: In Direction mode to modify the Wi-Fi frequency band, please modify the value of HW_WIFI_MODE to 1.

7) If the network card does not support the 5G frequency band, please modify the frequency band to 2.4G, that is, change the default value of

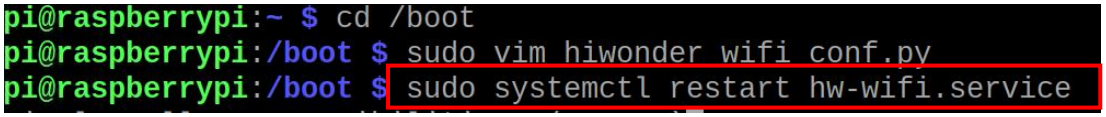
HW_WIFI_FREQ_BAND to 2.4, add "#" before "HW_WIFI_CHANNEL = 149", but note that the 2.4G transmission rate is lower than the 5G rate.



8) After modification, press “ESC” and enter “:wq”. Then save and exit the file.

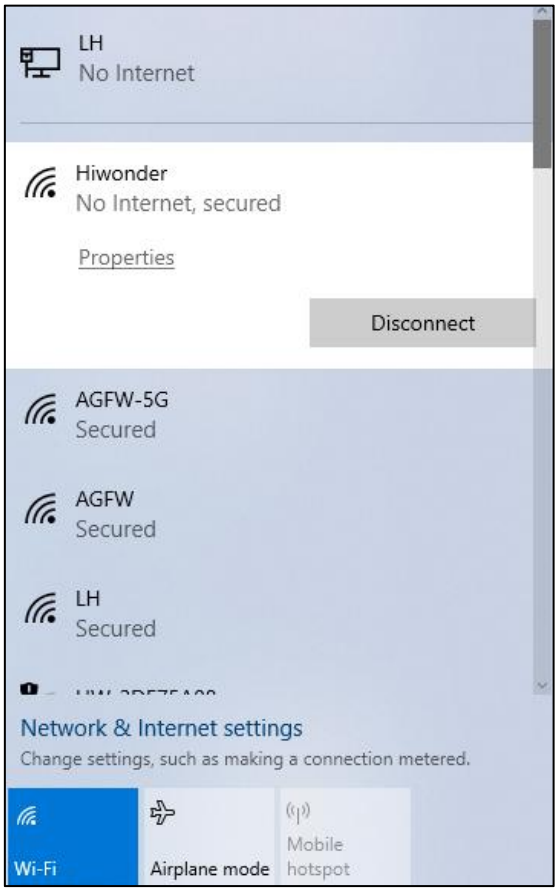


9) Enter “**sudo systemctl restart hw-wifi.service**” , press “Enter ” to restart the file. Then the VNC will disconnect automatically.



10) In the Wi-Fi setting area, you can find that the Wi-Fi name will be updated

as “Hiwonder”. Enter password “12345678” to connect.



2. Set a Static IP for the Raspberry Pi

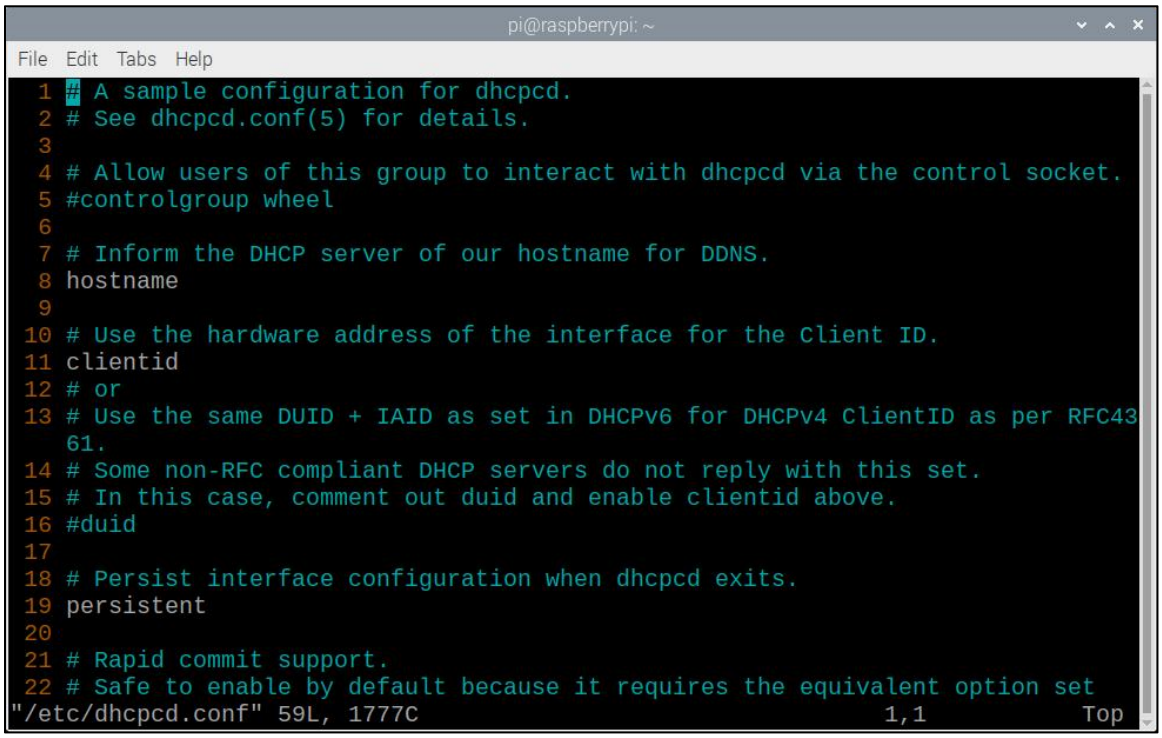
When using wired connection, it’s more convenient for you to set a static IP. Here is the method of setting a static IP.

1) Turn on Raspberry Pi, start VNC and connect to Raspberry Pi remote desktop.

2) Press “**Ctrl+Alt+T**” to open LX terminal.

3) Enter the following command to open the **dhcpcd.conf** configuration file with an editor.

```
pi@raspberrypi:~ $ sudo nano /etc/dhcpcd.conf
```



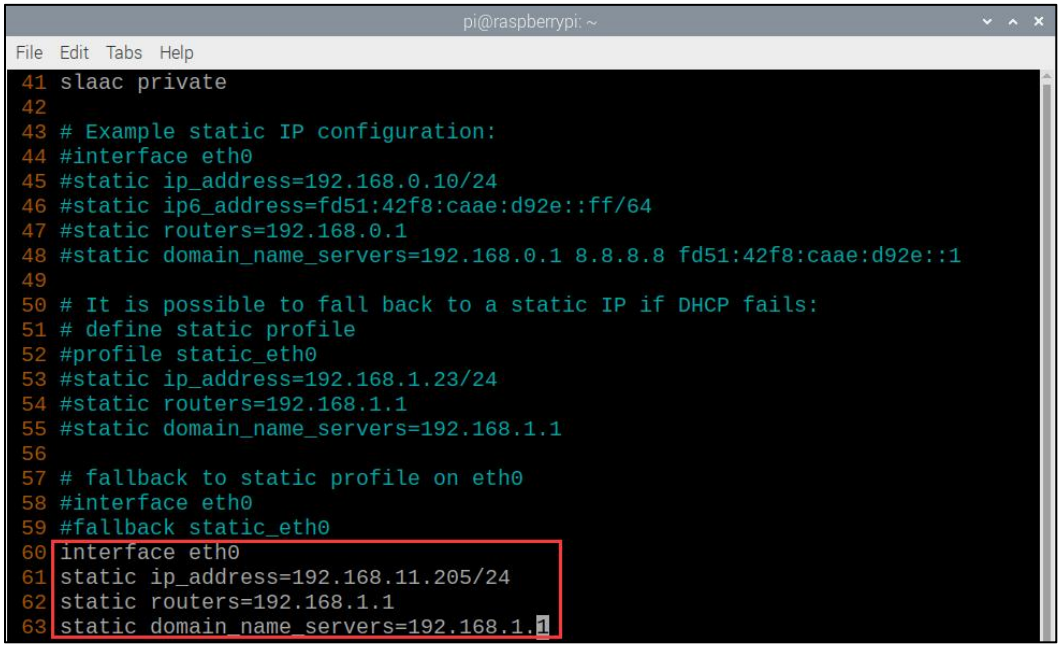
4) Presss the “i” key at the end of the file to enter the insert mode, and enter the following:

```
interface eth0 # wired network card 0

static ip_address=192.168.11.205/24# wired network card static IP address/24

static routers=192.168.1.1 # IP address

static domain_name_servers=192.168.1.1 #DNS address
```



5) Then we press "**Esc**", then "**shift+**:", enter ":**wq**" at the bottom left (note that the colon before wq:), press enter to save and exit.

6) Enter "**sudo reboot**" command to restart Raspberry Pi and connect with the new static IP.