Frequency Band Modification(optional)

ℹ The tutorial in this section is optional and is applicable to users using 2.4G band wireless network card (desktop computers need external network card). If you can't find hotspot, please refer to this section.

1. Preface

For a better user experience, the default Wi-Fi frequency band in Direct Connection Mode is 5G. If your network card does not support 5G, you may need to modify the frequency band to 2.4G, otherwise the hotspot launched by Raspberry Pi may not be found. If you want to switch back to the 5G band later, you can also follow the operations in this section.

In order to achieve a better experience, the default Wi-Fi frequency band in direct connection mode is 5G. If your network card does not support 5G, you need to modify the frequency band to 2.4G, otherwise the hot spots generated by the robot may not be found. Of course, if you want to switch back to the 5G band later.

If you have no idea of 2.4G and 5G frequency band, you can check the picture below:
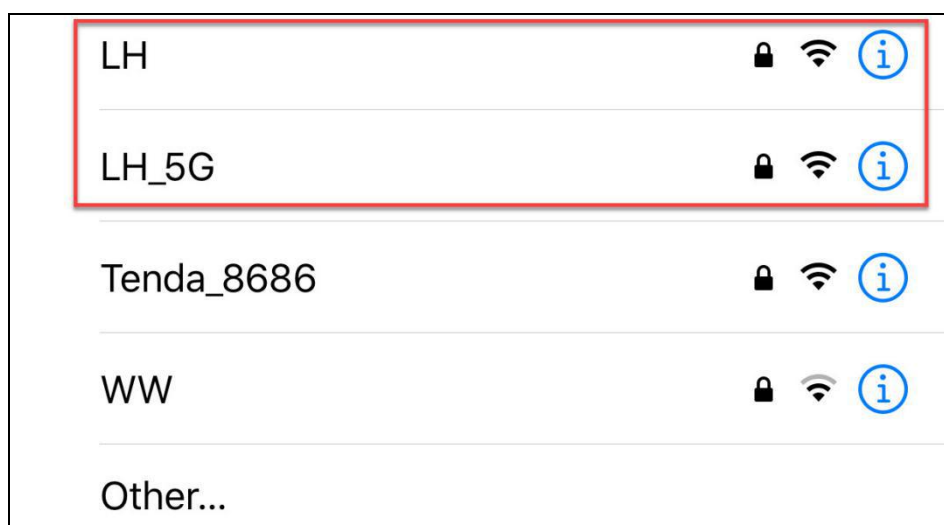
A router that supports dual frequency, in the case of separate dual-band settings, will distinguish the Wi-Fi name will be distinguished by default.

For example, the LH is 2.4G frequency band while LH_5G is 5G frequency band. If your network card does not support the 5G frequency band, LH_5G is unavailable in Wi-Fi searching. The Wi-Fi name of different routers may be different but the Wi-Fi internal frequency band setting is the most important. Therefore, we need to change the hotspot of the robotic arm from 5G to 2.4G to search.
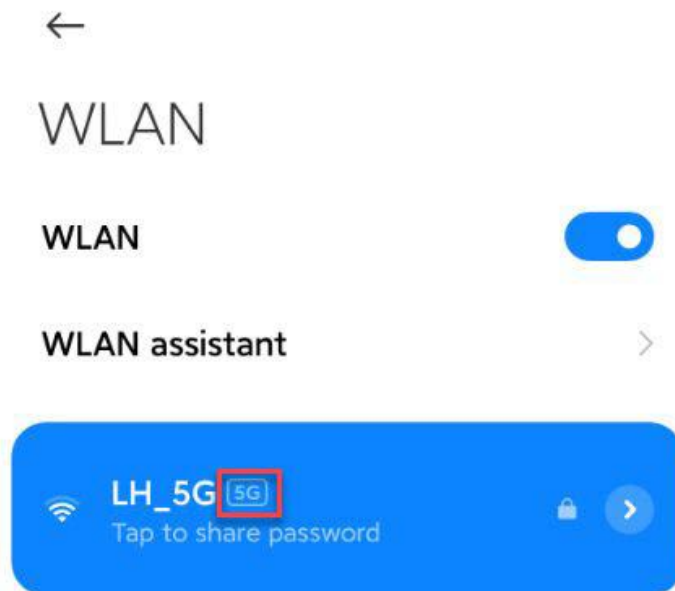
2. Modify Method

Take the 2.4G frequency band modification as example:

1) Prepare a card reader and insert the SD card containing the system image.

2) Insert the card reader to the computer. If a prompt pops up whether to format, just close it.

3) Go to the file shown in the figure below in the boot drive letter. Open it in the form of Notepad.

hiwonder_wifi_conf.py

4) Firstly, go to the lines of "HW_WIFI_FREQ_BAND = 5" and "HW_WIFI_CHANNEL = 149".


```
#!/usr/bin/python3

#coding:utf8


#HW_WIFI_MODE = 1                   #wifi working mode, 1 is AP mode, 2 is STA mode

#HW_WIFI_AP_SSID = 'ssid_name'       #SSID in AP mode.character and digital composition

#HW_WIFI_AP_PASSWORD = 'passwords'   #WIFI password in AP mode, character and digital
composition

#HW_WIFI_AP_GATEWAY = '192.168.149.1' #The local IP in AP mode, the default is
192.168.149.1, if you modify this item, you will not be able to enter the WiFi
configuration interface on the mobile APP

HW_WIFI_FREQ_BAND = 5               #the WiFi frequency in AP mode is directly assigned
as 2.4 or 5 corresponding to 2.4G and 5G

HW_WIFI_CHANNEL = 149               #WiFi signal channel in AP mode, under 5G testing
available channels are 149, 153, 157, 161

#HW_WIFI_STA_SSID = 'ssid_name'      #SSID in STA mode
```

5) There are two modification methods for your choice:

Method One: Change the number 5 in the line HW_WIFI_FREQ_BAND = 5 to 2.4 (must be entered under the English input method). Add "#" in front of the next line HW_WIFI_CHANNEL = 149, and then press "Ctrl +S" to save.

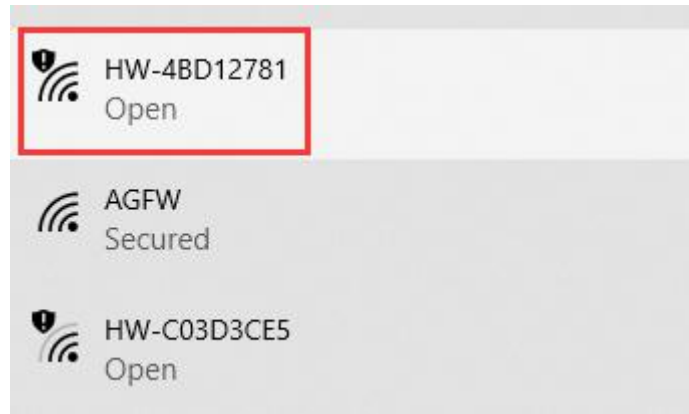Method Two: Put "#" in front of "HW_WIFI_FREQ_BAND = 5" and "HW_WIFI_CHANNEL = 149", and then press "Ctrl +S" to save.

6) After modifying, insert SD card back to Raspberry Pi. Wait for the restart to complete, we can see that the hotspot launched by the Raspberry Pi can be searched now.

If you want to edit back to 5G frequency band, you can refer to the above operations. Delete the "#" in the lines of "#HW_WIFI_FREQ_BAND = 5" and "#HW_WIFI_CHANNEL = 149".