2.3 Precautions before development:

If you use image we provided.

User name： **jetson**

Password： **yahboom**

All set passwords used in the system are **yahboom**.

Jetbot Mini factory firmware opening opportunity to run through the system service self-starting APP program:

① If you want to temporarily turn off the app from the startup, execute the following command:

```
sudo systemctl stop jetbotmini_start
```

② If you need to temporarily open the APP program that starts up and start, execute the following command:

```
sudo systemctl start jetbotmini_start
```

③ Or use the following command to manually run the APP program after closing the APP large program service process.

(This method can view the debugging information of the relevant output)

```
cd yahboom-jetbotmini/
sudo python3 yahboom-jetbotmini.py
```

④ To permanently disable the function of the APP program that is turned on, execute the following command:

```
sudo systemctl disable jetbotmini_start
```

⑤ To permanently disable the function of the APP program that is turned on, execute the following command:

```
sudo systemctl enable jetbotmini_start
```

⑥ If you do not restart the APP program by restarting Jetbot Mini, execute the following command:

```
sudo systemctl stop jetbotmini_start
sudo systemctl start jetbotmini_start
```

- **When we use APP control:**

1). Please wait patiently for the boot start signal 2-3 minutes. If you have not successfully started after waiting for a long time, please try to restart Jetbot Mini.

2). When you open the Jetbot Mini and enter the function interface with the camera real-time screen for the first time, the camera will be initialized and the camera driver will be started. After waiting for a short time, the image will be displayed. Before this, the image display frame is displayed as white without image, this status is normal.

3).Press the "save" button to save the photos to the mobile phone album. The specific saving directory is: mobile phone storage directory/Pictures/YahboomAlbum. Please confirm to obtain the storage permission for the first time.

4).If the app remote control cannot go straight forward, you can modify "/home/jetson/yahboom-jetbotmini/config.txt" file. The speed range is 0-255. The higher the value, the faster the speed. The default speed is 255.

- **When we developed the JETBOT MINI car by ourselves:**

1). Before we develop other courses, we need to enter the following command to manually start the service and end the APP process to release system resources

```
sudo systemctl stop jetbotmini_start
sudo systemctl stop jetbotmini_stats
```

2). When developing, you need to connect a router with a network, and you can manually connect WiFi:

If you have a screen:

Connect to the display through the HDMI cable, power on the robot, connect the mouse and keyboard, and select the WiFi you want to connect in the upper right corner of the screen. After the connection is completed, you can see the current network segment information on the OLED display screen.

If you don't have a screen:

Using the headless mode, use a microusb cable that can transmit data, connect the Jetson nano 2G motherboard at one end and the computer at the other end, log in to jetbot mini remotely through putty or xshell, and connect WiFi through instructions at the terminal.

Headless login IP: **192.168 55.1** jetbot mini account: **Jetson** password: **yahboom**.

For example, WiFi is called: WiFi_ Name WiFi password: 12345678.

Then you can use the command: **sudo nmcli dev wifi connect wifi_name password 12345678.**

If you don't want to write instructions, you can also use VNC, as in Section 3.3 Software Setting.

- **Camera abnormal processing and detection:**

When we may develop for a period of time due to some unconventional operations (such as not shut down and power off), the camera calls abnormally in Jupyter, and it will flashes.

Solution:

①Camera detection:

If you have display, enter following command in Jetbot Mini command console:

```
nvgstcapture-1.0
```

If the camera is normal, the screen will be displayed. Press ctrl + C to exit and close the window.

②We need to end the Jupyter thread to clear the use cache, and then re-fresh Jupyter again to return work normally.

Input following command:

```
sudo systemctl stop jetbotmini_jupyter
```

Input following command:

```
sudo systemctl start jetbotmini_jupyter
```

Or you can use **top** command in Jetbot Mini command console to find jupyter thread number.

Then, you can use following command to kill jupyter thread.

```
sudo kill -9 xxxx
```

After closing the thread, wait for the thread to start.

- **Course that need a handle**

We need to use the handle in the chapter on the use of the handle to complete the course.

- **When developing in Jupyter, the camera interface can only open one instance**

The camera may not be called because the camera interface was not released because the thread that used the camera was completely closed. We can restart Jetbot Mini to solve it.

```
sudo reboot
```

- **The problem of network connection failure**

If the network connections are normal, it is usually the cause of addressing failure in the local area network. Repeat the re-connection operation several times, or use ping to ping IP each other.

About jetbot mini car, you can refer to [FAQ]---[Q1.If everything is configured, the phone still can't connect to Jetbot-Mini.]