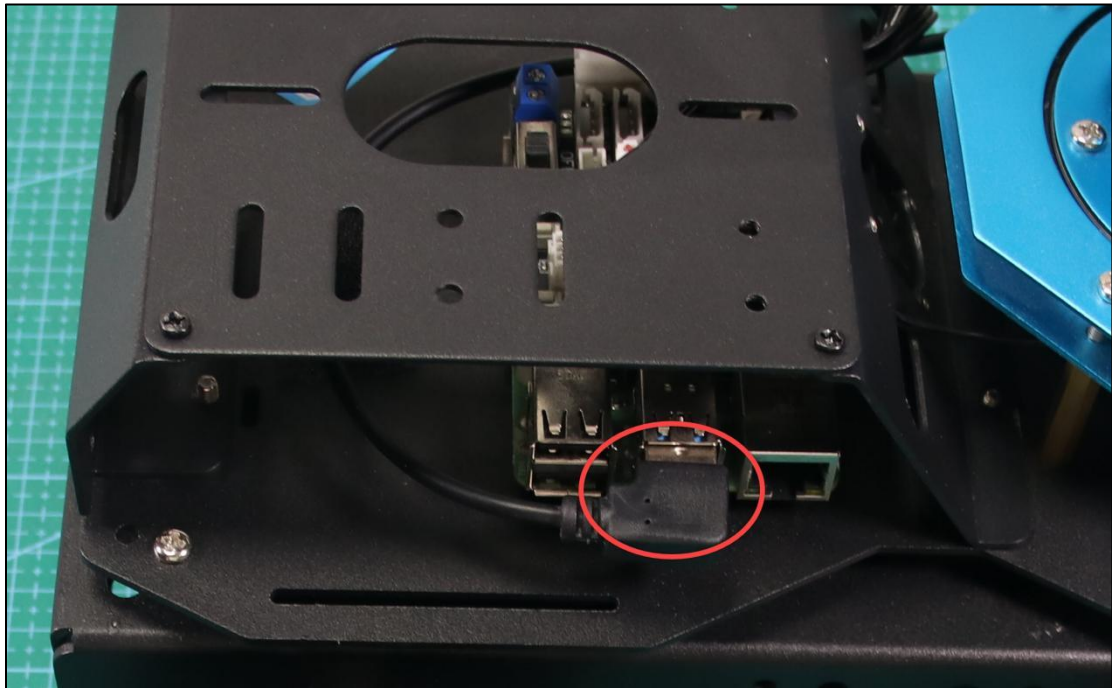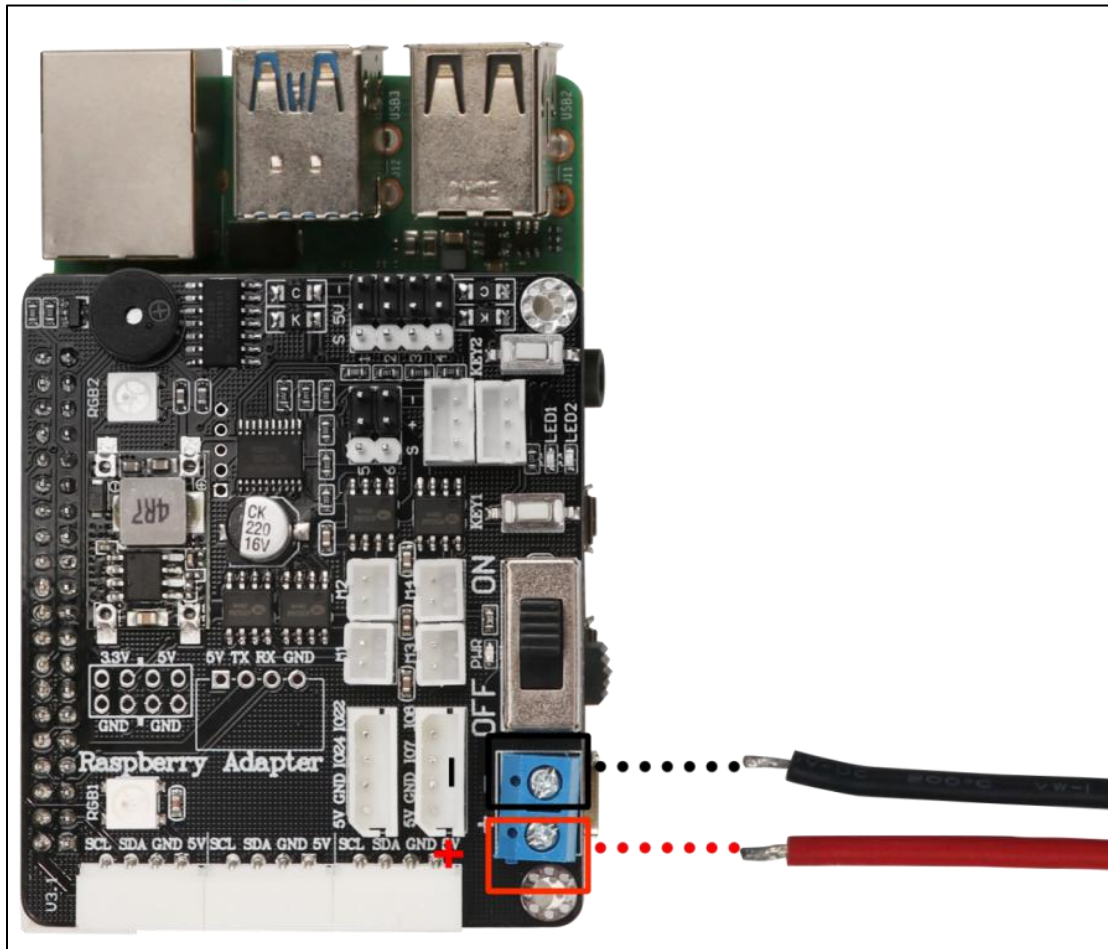# Lesson 3 Start ArmPi Pro

1. Check Camera Connection

1) Before turning on ArmPi Pro, please check whether the camera cable is connected firmly. (The camera cable can be connected to one of USB ports of Raspberry Pi controller.)
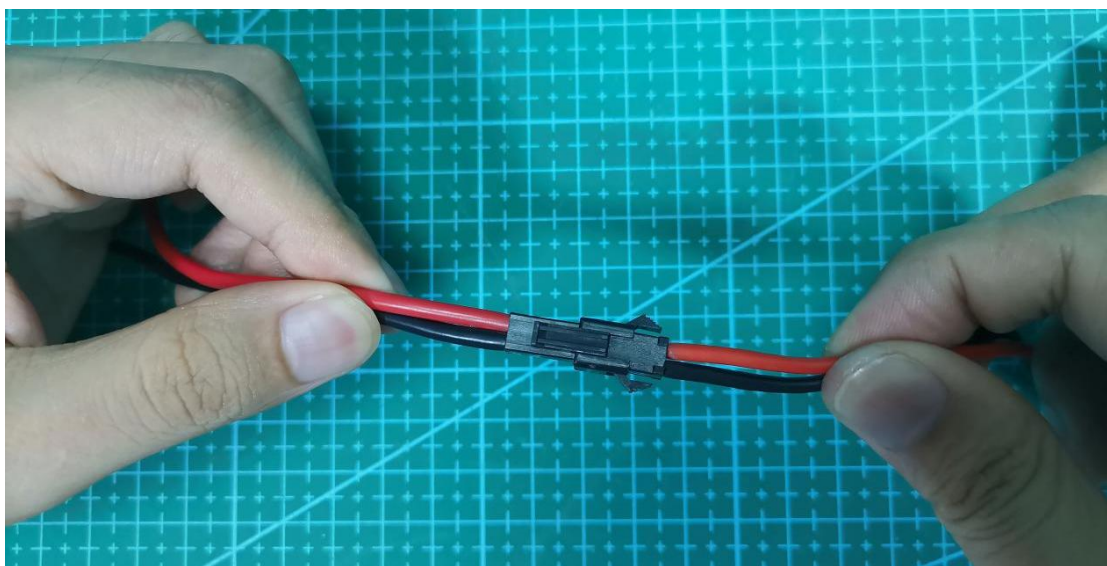

2. Power Supply Connection and Charging

2.1 Connect Power Supply

1) Connect the paired wires of power supply into the Raspberry Pi expansion board. Red wire to positive pole and black to negative pole. (If the wires were connected already, you just need to make sure it is correct connection.)

2) Please confirm whether the switch of Raspberry Pi expansion board is pushed to "OFF". Then connect the paired wires of expansion board with that of power supply. (Red to red and black to black)

2.2 Charging

1) Take out charger and insert its cable to the battery cable.

2) Waiting for the charging to complete. The indicator light of charger turns green when the charger is powered on; Red light is to indicate charging. (The duration of charging is about 1.5h). When the indicator turns green from red, it means charging is complete. Please unplug the charger as soon as possible after charging.
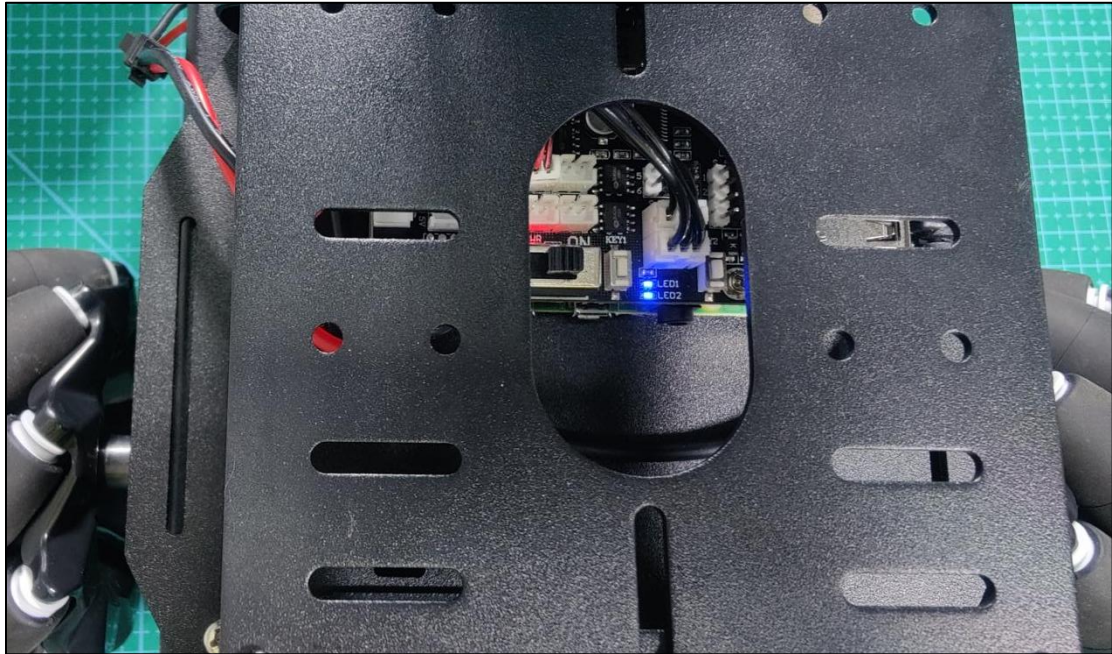
3. Turn on ArmPi Pro

3.1 Turn on

1) Switch on Raspberry Pi expansion board. The LED1 and LED2 of the Raspberry Pi will be on firstly and then the LED2 will flash every 2 seconds, which means the robot is turned on successfully.

The Raspberry Pi is a small minicomputer . It usually takes about 1 minute to boot up after it is Powered ON, which is normal.

2) After turning on, Raspberry Pi will be in an AP direct connection mode by default and launch a Wi-Fi hotspot starting with "HW".

3.2 Turn off

1) There are two turning off methods, which are hardware turning off and software turning off. The specific operation are as follow：

	Operation Steps
Hardware turning off	Push the switch of Raspberry Pi expansion board from "ON" to "OFF".
Software turning off	Open the terminal, and then run "poweroff" command.

Note: When turning off robot through software, "ArmPi Pro" needs to be remotely connected via VNC. The specific operation steps can be viewed in folder "6. Raspberry Pi and Expansion Board"/ 2. Expansion Board Lesson/ Lesson 4 Set Environment Development.