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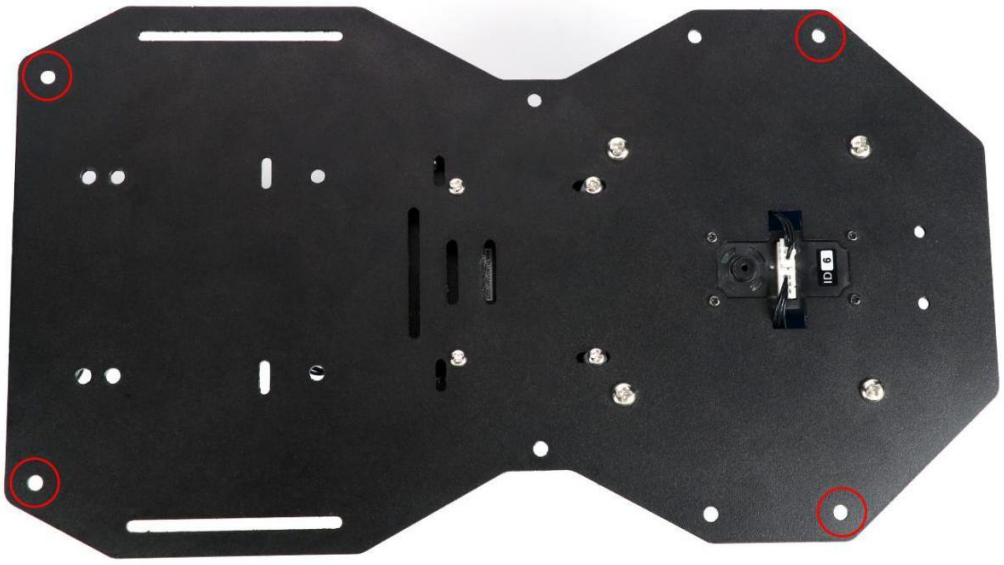
Lesson 5 Start xArm ESP32

1. Getting Ready

1.1 Suction Cup Installation

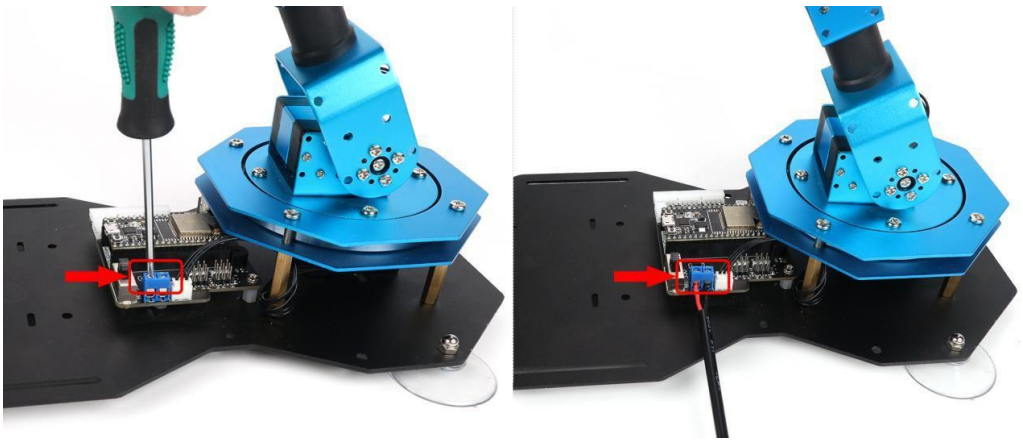
1) Install suction cups into the four holes at the corners of base, as the figure shown below.



2) After inserting the gaskets on the suction cups, fix them with nuts.

1.2 Adapter Connection

1) Loosen the screws on the power port of the controller board framed in the following picture. Then connect the DC pairing wires to the power port. The red wire is connected to “+” and the black wire to “-”.

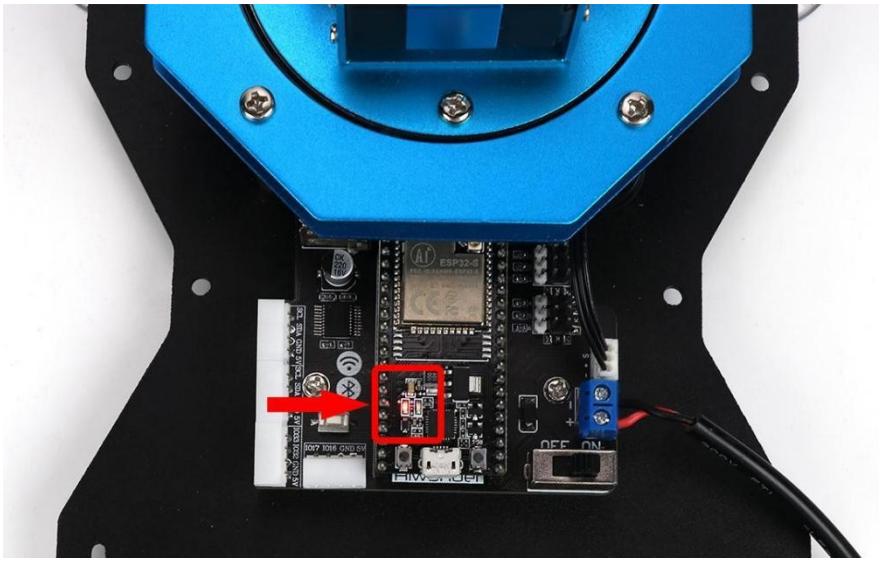


2) Connect the power adapter to the DC pairing cable. Then connect the power adapter to the socket and switch on the expansion board.

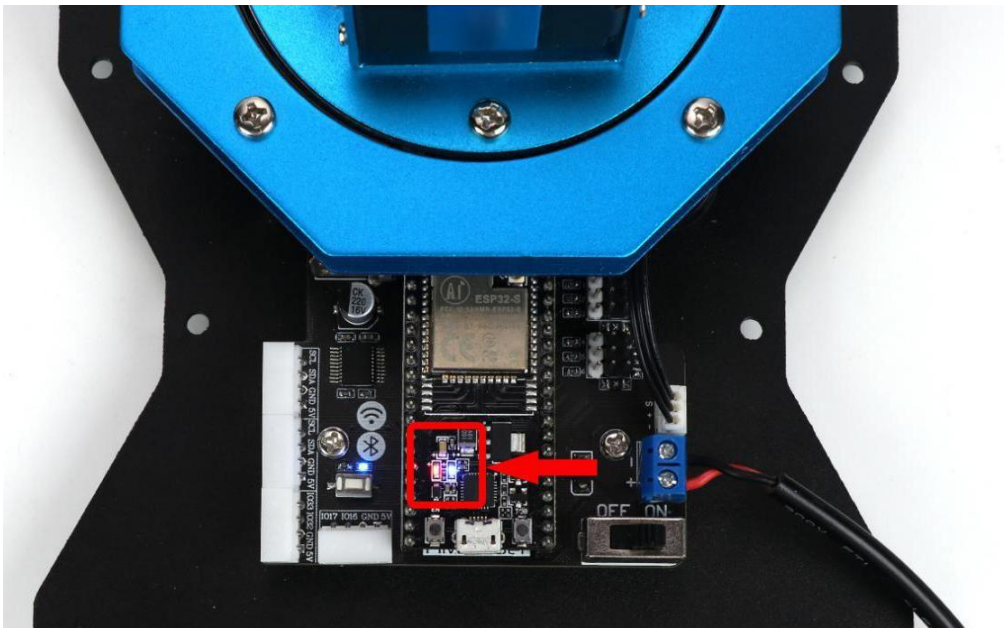
Note: xArm ESP32 can also be connected to the USB port (5V) of computer to supply power. However, for ensuring the normal operation, please use the provided adapter (7.5V) for power supply to avoid affecting driving performance due to the low voltage.

2. Indicator Instruction

After the robotic arm is switched on, the LED on ESP32 microcontroller will light up, which means the power is supplied normally.



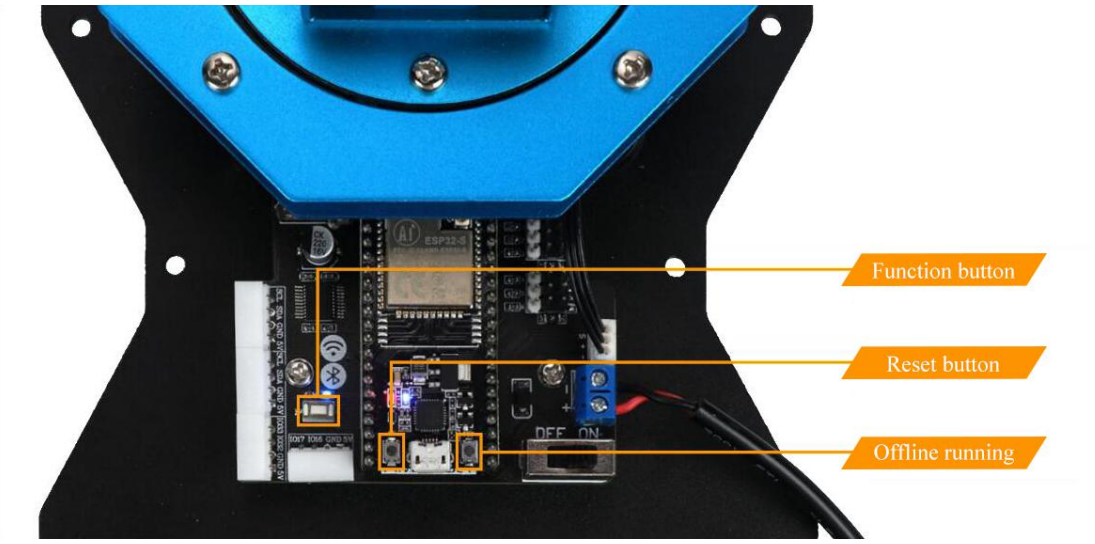
When the blue LED lights up, it indicates that the device has already initialized completely, that is, the device is boot up successfully. At this time, the servo indicator will flash at different color lights as the mark of normal working status, and then you can start to operate the robotic arm.



Note: the Bluetooth service is involved during turning on the robotic arm, so that the initialization process needs to take about 10 seconds to complete. This is normal phenomenon.

In addition, the blue LED on the left of the controller will flash continuously after switching on the robotic arm, which means the Bluetooth and device do not be connected at this moment. If the connection is successful, LED will keep on.

3. Button Instruction



Button	Function
Function button	Disconnect Bluetooth
Reset button	It can restart the EPS32 controller directly.
Offline running button	It is used to manually control the performance of the action group. (You can refer to the tutorial in “3.xArm ESP32 Pc Software and Action Programming” -> Lesson 5 Offline Running)