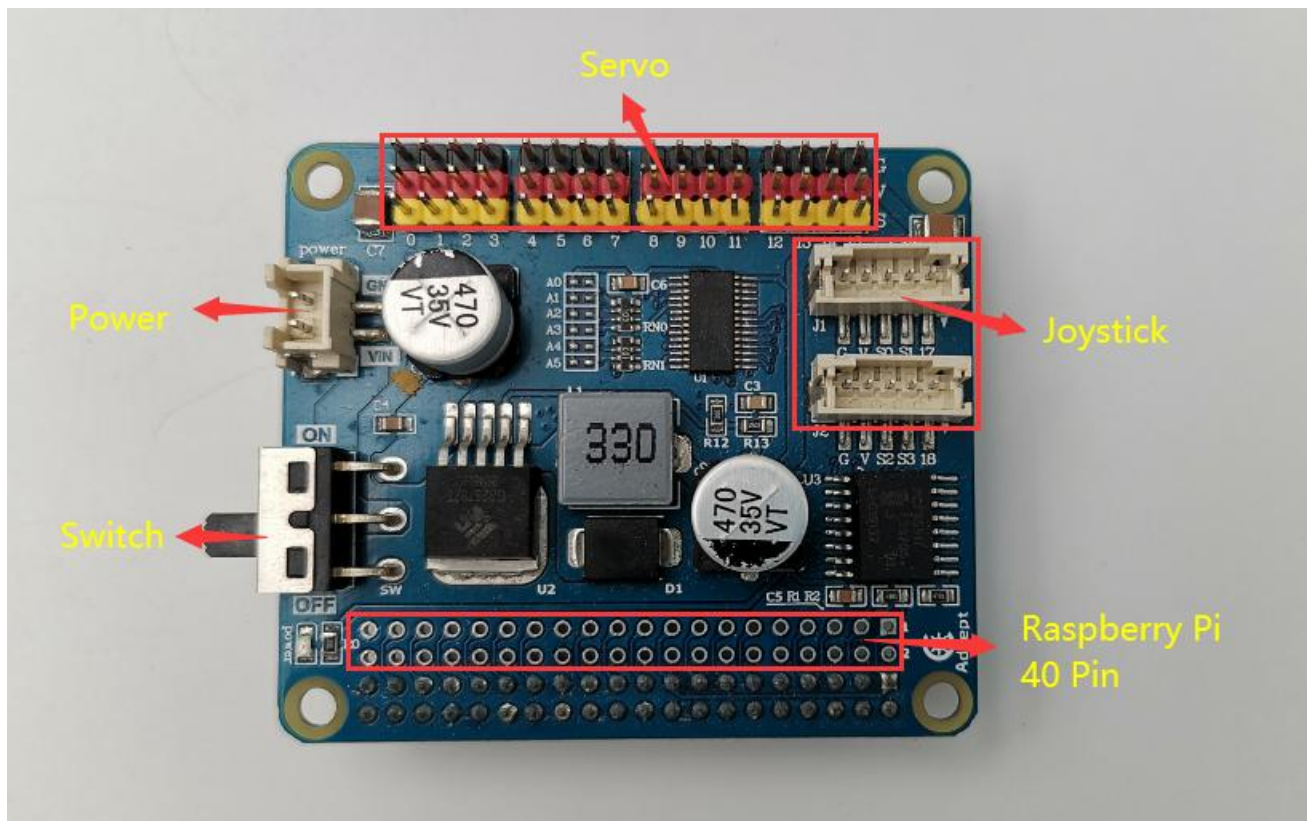


Lesson 2 Introduction of Arm HAT

2.1 Arm HAT

When you get the product, you will see a board : Arm HAT, which is an important part of the robotic arm. There are many interfaces on the Arm HAT. You can connect sensors and electronic hardware modules to the board by those interfaces to realize more functions. Let's first get to know the Arm HAT.



[Power]: The interface is an interface for external power supply.

[Switch]: Switch is to turn the Arm HAT ON/OFF.

[Servo]: Servo interface.

[Raspberry Pi 40 PIN]: General Purpose Input Output (GPIO) is designed as a slot with two rows of pins on the Robot HAT. GPIO can be used to connect various peripheral electronic devices and sensors and control or monitor these devices with input/output level signals. In robot products, this GPIO interface is connected to the GPIO pins on the Raspberry Pi.

[Joystick]: Joystick interface.

2.2 Precautions for Using the Arm HAT

When you are performing software installation, structural assembly or program debugging, you can use a USB cable to power the Raspberry Pi.

Different Raspberry Pi models have specific requirements for current. For example, the Raspberry Pi 3B needs at least 2A to boot up, the Raspberry Pi 4 needs 3A to boot normally, yet the Raspberry Pi 5 needs 5A to boot normally. When you use the power adapter to power the Raspberry Pi, you can check the specifications on your power adapter.

When Arm HAT is connected to a load, such as a few servos, a high-current power supply is required to connect on the Arm HAT. You can use two high-current 18650 battery for power supply. The Adeept robot provides a dual 18650 battery box with a 2-pin interface for you to supply power to the Arm HAT.