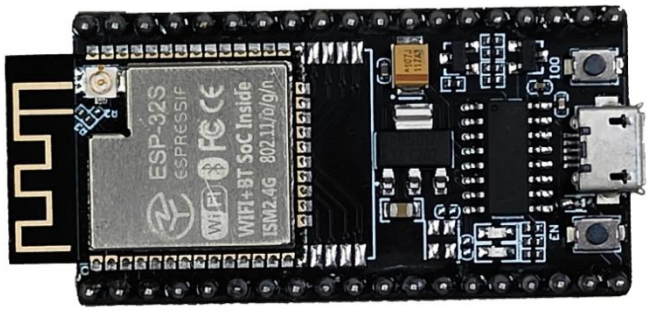
Lesson 2 Controller Introduction

1.Overview

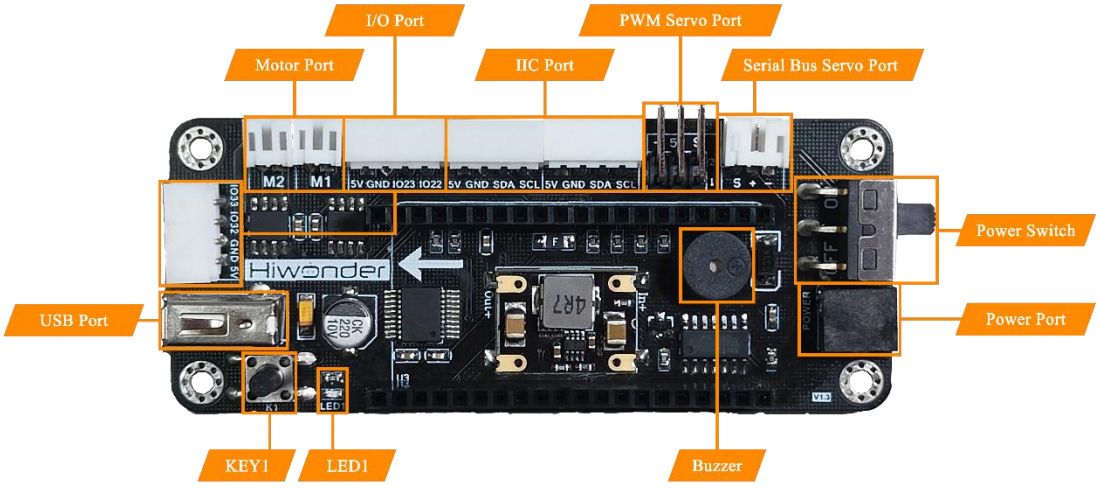
The ESP32 as the main controller of MaxArm integrates 2.4 GHz Wi-Fi and dual-mode Bluetooth chip, and is manufactured by TSMC using their 40 nm process, thus it features high RF performance, versatility, reliability and ultra-low power consumption to meet different power consumption requirements for various application scenarios.

The ESP32 uses the ESP-32S module, which is a general-purpose Wi-Fi+BT+BLE MCU module with extendible and adaptive features, two CPU cores that can be controlled individually, and a clock frequency adjustment range of 80MHz to 240MHz.



MaxArm supports Mircro-Python and Arduino programming to meet different development requirements.

2. The Instruction of Electronic Module



Electronic Module	Instruction
DC motor port	Used to connect and drive the external motor
Bus servo port	Connect and drive the bus servo, then read its status
PWM servo port	Connect and drive the PWM servo
Buzzer	Programmed to make sound
Power port	Connect the power adapter
Power switch	Turn on/off the device
Key K1	For secondary development
LED1	
GPIO port	For secondary development

I2C port	
USB port	Connect with the PS2 handle