



Universal IOT Experiment Kit for ESP32

SKU: K024

M5IotKit. This is a feast of IoT stuff, powered by M5Stack. It is an all-in-one Learning board, powered by ESP32, which includes anything you can imagine in an IoT + industrial application scenarios. Let's see what you can do with it: Robotic movement, the most commonly used serial communication port(RS485 RS232), Relay control, all different types of Button control, RF reader, speaker, Microphone and more all able to develop by an M5stack core device, so you can program this board with Blockly(UIFlow), Arduino, and Micropython. Based on application scenarios, we've partitioned them into different functional parts with the good-looking layout and full-function performance. Here comes the most powerful IIoT learning board.

Product Feature

- Fully Compatible with the M5Stack stackable and extendable system
- Protoboard, M5-BUS extension
- Each module comes with an individual power switch.
- Environment Sensor set (Temperature, Humility, barometric pressure, light intensity, and Microphone)
- Joystick Controller
- 8 Channel of Realy output
- 4x DAC, 4x ADC
- 4x4 button matrix
- 8x8 RGB LED matrix
- Encoder
- 1x Servo
- DC-Motor(with feedback encoder)
- step motor with four-phase five-wire
- Radio frequency identification Reader
- RS-458, RS232 series communication

Include

- 1x **M5IoTKit** learning board
- 1x Power Aapter
- 1x Dupont cable set

Module Name	working Voltage	Patameter
ADC	5V	4x ADC port/ADS1115
DAC	5V	4x DAC port/DAC6574
Joystick	3.3V	axis-X/Y potentiometer input, axis-Z button input
DHT12	3.3V	I2C address 0x5C
BMP280	3.3V	I2C address 0x76

Module Name	working Voltage	Patameter
Light	3.3V	A/D sampling supported, adjustable threshold
Microphone	3.3V	A/D sampling supported, adjustable threshold
Relay	5V	8 channels /3A-220V-AC/3A-30V-DC
RBG LED	5V	8x8 LED matrix
Servo	5V	10KG torsion
DC-Motor	5V	feedback encoder/LV8548MC
Stepmotor	5V	4-phase 5 wires LV8548MC
RFID	3.3V	Read & Write distance: < 8 cm/ MFRC522
RS485	5V	SP485EEN-L/TR
RS232	5V	MAX232ESE
Encode		Encoder button
Proto		170x holes
Keyboard		4x4 button matrix

Schematic

- [M5IoT-kit](#)

Example

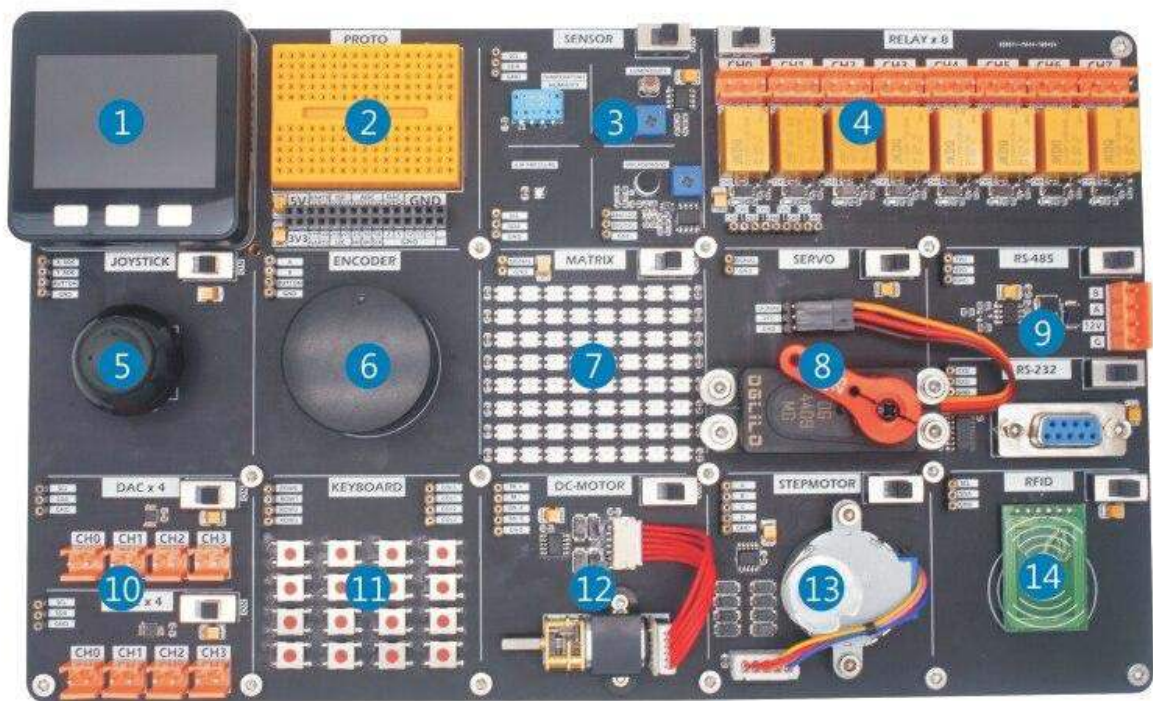
Arduino IDE

- Joystick
- DHT12+BMP280
- Light
- Relay
- Microphone
- Servo
- DC-Motor
- RFID

Datasheet

- ADS1115
- DAC6574
- LV8548MC
- TPS54360
- RC522
- MAX232ESE
- MAX4466
- SP485EEN-L/TR
- BMP280





- 1: CORE 2: PROTO 3: SENSOR 4: RELAYx8
- 5: JOYSTICK 6: ENCODER 7: MATRIX 8: SERVO
- 9: RS-485/RS-232 10: DACx4/ADCx4 11: KEYBOARD
- 12: DC-MOTOR 13: STEPMOTOR 14: RFID