M5Stack M5GO IoT Starter Kit V2.7

Description

The **M5GO IoT Starter Kit v2.7** is a cost effective IoT starter development kit. The kit contains **Core Controller M5GO** + **6 expansion units with different functions** (sensors/actuators/splitters). The core controller **M5GO** adopts Espressif **ESP32** chip, equipped with 2 low-power **Xtensa® 32-bit LX6** microprocessors, with a main frequency of **240MHz**. With 16M FLASH memory for larger program size. Besides its powerful , the MCU also supports **Wi-Fi**, which can be used to build smart wearable devices, **smart home** and other applications.

Product Features

- Based on ESP32 development
- 16M FLASH
- Integrated HD IPS display panel with various hardware peripherals
- Rich resources interface, compatible with M5Stack stacking modules and sensors, Strong expandability
- The base is compatible with 8mm size LEGO blocks, the structures just so interesting!
- Microsoft Azure authentication device
- Compatible with multi-platform development:
  - UIFlow
  - MicroPython
  - Arduino
  - .NET nanoFramework

M5GO IoT controller

- Low code development:
  - Supports UIFlow graphical programming platform, scripting-free, cloud push
  - Fully compatible with Arduino, ESP32-IDF and other mainstream development platforms
  - FreeRTOS support, with dual-core and multitasking mechanism, it can perform the tasks efficiently, Program optimization.
- High integration.
  - 2.0-inch IPS display panel, 6-axis IMU, programmable RGB lights x10, microphone, speaker, custom buttons x3
  - Built-in Li-ion power supply, integrated power management chip, supports TypeC interface and POGO PIN interface power supply
  - Finely tuned RF circuitry for stable and reliable wireless communication

- Strong expandability.
  - GROVE expansion ports x3 (I2C, GPIO, UART)
  - Easy access to M5Stack hardware and software system, stackable module design, plug-and-play sensor expansion

6x expansion units

- ENV UNIT III: Temperature, humidity, and atmospheric pressure sensors, with I2C communication interface for rapid acquisition of environmental information.
- PIR UNIT: Body sensor, passive pyroelectric for human body sensing, digital signal output status.
- ANGLE UNIT: Knob Potentiometer, analog signal input for music/lighting adjustment
- IR UNIT: Integrated infrared transmitter, receiver. Free coding, infrared transceiver.
- RGB UNIT: 3x Programmable RGB LED, support programming to control any color display
- HUB UNIT: I2C device splitter, expand single I2C bus to 3 channels, can access different I2C address devices

Switch on/off operation:
Power on: Click the left red button
Power off: Quick double click the left red button
USB power: By default, It can not be shutdown when USB power is on.

Included

- 1x M5GO
- 6x Units(ENV III, IR, RGB, PIR, ANGLE, HUB)
- 4x LEGO Blocks
- 12x LEGO Connections
- 4x GROVE cable
- 1x Type-C USB (20cm)
- 1x Quick Start Guide

Applications

- STEM Education
- IoT Controller
- Smart Home
- Smart Weather Station

Specifications

Specifications	Parameters

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ESP32-D0WDQ6-V3	240MHz dual core, 600 DMIPS, 520KB SRAM, Wi-Fi
Flash	16MB
Input Voltage	5V @ 500mA
Host Interface	TypeC x1, POGO PIN x1, I2C x1, GPIO x1, UART x1
IPS Screen	2 inch, 320x240 Colorful TFT LCD, ILI9342C, 853nit max brightness
Keys	Custom Keys x 3
Speaker	1W-0928
Microphone	Analog BSE3729 Microphone
IMU	6-axis MPU6886
USB Chip	CH9102F
LED	SK6812 RGB LED x 10
Antenna	2.4G 3D antenna
Battery	500 mAh @ 3.7V
Operating Temperature	0°C to 40°C
Net Weight	56.4g
Gross Weight	228g
Product Dimensions	54 x 54 x 21 mm
Package Size	147 x 90 x 40 mm
Cover Material	Plastic (PC)