FIRE

NEW FIRE

M5STACK

M5GO.
BOTTOM

CHG.
BASE

ESP32
- 16M-FLASH
- 4M-PSRAM
MPU9250

FIRE
DEVELOPMENT KIT
V1.0

M5STACK

LEGO
ESP-IDF
BLOCKLY
ARDUINO
MICRO-PYTHON

ESP32
- 16M-FLASH ★
- 4M-PSRAM ★
MPU9250

1W SPEAKER

3D ANTENNA

TYPE-C USB

LED BAR

GROVE (I/O)

GROVE (UART)

CP2104

600mAh BATTERY

IP5306 (I2C)

TF CARDER

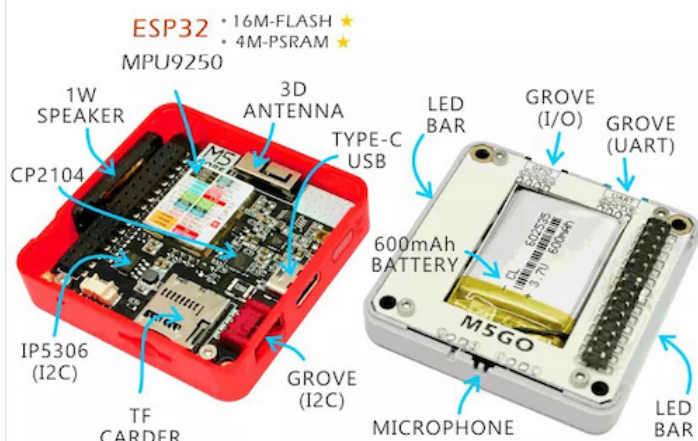GROVE (I2C)

MICROPHONE

LED BAR

M5GO

The Most Powerful M5Stack Kit!

[Description](#)   [Quick Start](#)   [Example](#)

[Schematic](#)   [Purchase](#)   [Related Video](#)

Description

The M5Stack FIRE is a development kit based on ESP32 chip. FIRE is a kit which composed of red m5core, [M5Go Base](#) and [M5Go CHG. Base](#) (for charging red m5core). You can even program The M5Stack FIRE through Blockly, Arduino or MicroPython.

The M5Stack FIRE equips ESP32 with everything necessary to program. It also features a 9-Axis (Gyro + Accelerometer + Magnetometer) MEMS (MPU-9250) and a TFT LCD, so you can create a 3D remote gesture controller, a simple "Leap Motion" via M5Stack FIRE in a day in stead of couple weeks and so on.

M5Go CHG. Base is composed of POGO pin. M5Go Base is composed of PORT B, PORT C, 2 RGBLed Bars(SK6812), a microphone and a Battery(600mAh).

Charging instructions: The charging indicator light will blink when base is charging, but the light will keep on when charge completed.

Feature

- Programming Support
  - UIFlow
  - MicroPython
  - Arduino
- Compatible LEGO
- TF Card Support

PinMap

MainBoard Pinmap

LCD & TF Card

LCD Pixel : 320x240 Maximum storage of TF Card: 16GB

ESP32 Chip	GPIO23	GPIO19	GPIO18	GPIO14	GPIO27	GPIO33	GPIO32	GPIO4
ILI9341	MOSI	/	CLK	CS	DC	RST	BL	
TF Card	MOSI	MISO	CLK					CS

Button & Speaker

ESP32 Chip	GPIO39	GPIO38	GPIO37	GPIO25
Button	BUTTON A	BUTTON B	BUTTON C	

Speaker	Speaker Pin

GROVE A & IP5306

Power Management IC (IP5306) is a custom I2C version, and the IIC address of IP5306 is 0x75. Click here for view register manual.

ESP32 Chip	GPIO22	GPIO21	5V	GND
GROVE A	SCL	SDA	5V	GND
IP5306	SCL	SDA	5V	GND

9-axis IMU sensor(MPU9250)

I2C Address: 0x68

ESP32 Chip	GPIO22	GPIO21	5V	GND
MPU9250	SCL	SDA	5V	GND

M5GO Base Pinmap

GROVE B

ESP32 Chip	GPIO36	GPIO26	5V	GND
GROVE B	GPIO36	GPIO26	5V	GND

GROVE C

ESP32 Chip	GPIO16	GPIO17	5V	GND
GROVE C	RXD	TXD	5V	GND

LED Bar & MicroPhone

ESP32 Chip	GPIO15	GPIO34
LED Bar	SIG Pin	
MicroPhone		MIC Pin

PARAMETER

M5Core SourceParameter

ESP32	240MHz dual core, 600 DMIPS, 520KB SRAM, Wi-Fi, dual mode Bluetooth
Flash & PSRAM	16MB Flash + 4MB PSRAM
Input	5V @ 500mA
Interface	TypeC x 1, GROVE(I2C+I/0+UART) x 1
LCD	2 inch, 320x240 Colorful TFT LCD, ILI9341
Speaker	1W-0928
Microphone	MEMS Analog BSE3729 Microphone
LED	SK6812 3535 RGB LED x 10
MEMS	MPU9250
Battery	550mAh @ 3.7V, inside vb
Op.Temp.	32°F to 104°F (0°C to 40°C)
Size	54 x 54 x 21 mm
C.A.S.E	Plastic (PC)

NOTE:

We have several kinds of Cores, the following figures show the main differece with them.

- *If you want to view the detailed defference with them, please click here.*

- *If you want to download the detailed defference with them, please click here.*

Core	Picture	Flash	Interface Connectors	LCD	Microphone	LED	MEMS	Battery	Size	Package Include
BASIC		4MB	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	-	-	-	150mAh @ 3.7V	54 × 54 × 12.5mm	· 1x M5Stack BASIC · 1x M5Stack BASIC Bottom · Type-C USB Cable · User Manual
GRAY		16MB (old: 4MB)	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	-	-	MPU9250	150mAh @ 3.7V	54 × 54 × 12.5mm	· 1x M5Core GRAY · 1x M5Core Bottom · Type-C USB Cable · User Manual
Fire		16MB Flash + 4MB PSRAM	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	MEMS Analog BSE3729	SK6812 3535 RGB LED×10	MPU9250 (old:MPU6050 + MAG3110)	600mAh @ 3.7V	54 × 54 × 21mm	· 1x M5Stack FIRE · 1x M5GO Base · 1x M5GO CHG BASE · Type-C USB Cable · User Manual
Faces		16MB (old: 4MB)	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	-	-	MPU9250	600mAh @ 3.7V	54 × 108 × 12.5mm	· 1x M5Stack GRAY · 3x Panels (Keyboard, Gameboy, Calculator) · 1x FaceBottom · 1x Charging Base · 1x Type-C USB Cable · 1x User Manual
M5GO Lite		16MB	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	MEMS Analog BSE3729	SK6812 3535 RGB LED×10	MPU9250	600mAh @ 3.7V	54 × 54 × 21mm	· 1x M5Stack Core · 1x M5GO Bottom · 1x Charging Base · 1x Units(ENV) · Cable · 1x User Manual
M5GO		16MB	I2C+I/O+UART	2 inch, 320×240 Colorful TFT LCD, ILI9341	MEMS Analog BSE3729	SK6812 3535 RGB LED×10	MPU9250	600mAh @ 3.7V	54 × 54 × 21mm	· 1x M5Stack Core · 1x M5GO Bottom · 1x Charging Base · 6x Units(ENV, RGB, IR, ANGLE, HUB, PIR) · Accessories · Cable · 1x User Manual

miniCore	Picture	Flash	Interface Connectors	LCD	Microphone	LED	MEMS	Battery	Size	Package Include
M5Stick		4MB	I2C	1.3' OLED Screen(64×128)	-	LED	-	80mAh	48 × 24 × 18mm	• 1x M5Stick including 80mAh-Battery • 1x Type-C USB Cable
M5Stick(Watch/Wall Kit)		4MB	I2C	1.3' OLED Screen(64×128)	-	LED	MPU9250	80mAh	48 × 24 × 18mm	• 1x M5Stick including 80mAh-Battery • Wall/1515 • Watch Belt • Brick • 1x Type-C USB Cable

Include

- 1x M5Stack FIRE
- 1x M5GO Base
- 1x M5GO CHG BASE
- Type-C USB Cable
- User Manual

Related Link

- Datasheet - ESP32 - MPU9250

Related Video