

# M5StickC



## Description

**M5StickC** is a mini M5Stack, powered by ESP32. It is a portable, easy-to-use, open source, IoT development board.

*What it can do?* This tiny block is able to realize your idea, enlighten your creativity, and help with your IoT prototyping in a very short time. It will take away a lot of the pains from the development process.

M5stickC is one of the core devices in M5Stack product series which is built in a continuous growing hardware & software ecosystem. It has a lot of compatible modules & units, as well as the open source code & engineering community that will help you maximize your benefit in every step of the developing

### Power switch operation:

- Power on : Long press power button for 2 seconds
- Power off : Short press power button for 6 seconds

### Notice:

- Baudrate supported by M5StickC: 1200 ~115200, 250K, 500K, 750K, 1500K
- Only Orange type is available for now



### Notice:

M5StickC only supports WIN10 & Linux & MAC free drive, the rest of the operating system requires users to install the driver.

Installation steps: 1. Click the link below to download the driver installation package. 2. Connect the device and open the Computer Device Manager port option. 3. Right click on the unrecognized device and perform a manual update.

## Product Features

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- 5V DC power supply
- USB Type-C
- ESP32-based
- Case Material: PC + ABS
- 4 MByte Flash
- 6-Axis IMU: MPU6886
- Red LED
- IR transmitter
- Microphone
- 2 Buttons, LCD(0.96 inch), 1 Reset
- 2.4G Antenna: Proant 440
- 80 mAh Lipo Battery
- Extendable Socket
- Grove Port
- Wearable & Wall mounted
- Development Platform [UIFlow](#), [MicroPython](#), [Arduino](#)
- Product Size: 48.2mm x 25.5mm x 13.7mm
- Product weight: 15.1g



## ESP32 Features

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- 240 MHz dual core Tensilica LX6 microcontroller with 600 DMIPS
- Integrated 520 KB SRAM
- Integrated 802.11b/g/n HT40 Wi-Fi transceiver, baseband, stack and LWIP
- Integrated dual mode Bluetooth (classic and BLE)
- Hall sensor
- 32 kHz crystal oscillator
- PWM/timer input/output available on every GPIO pin
- SD-card interface support

## EasyLoader

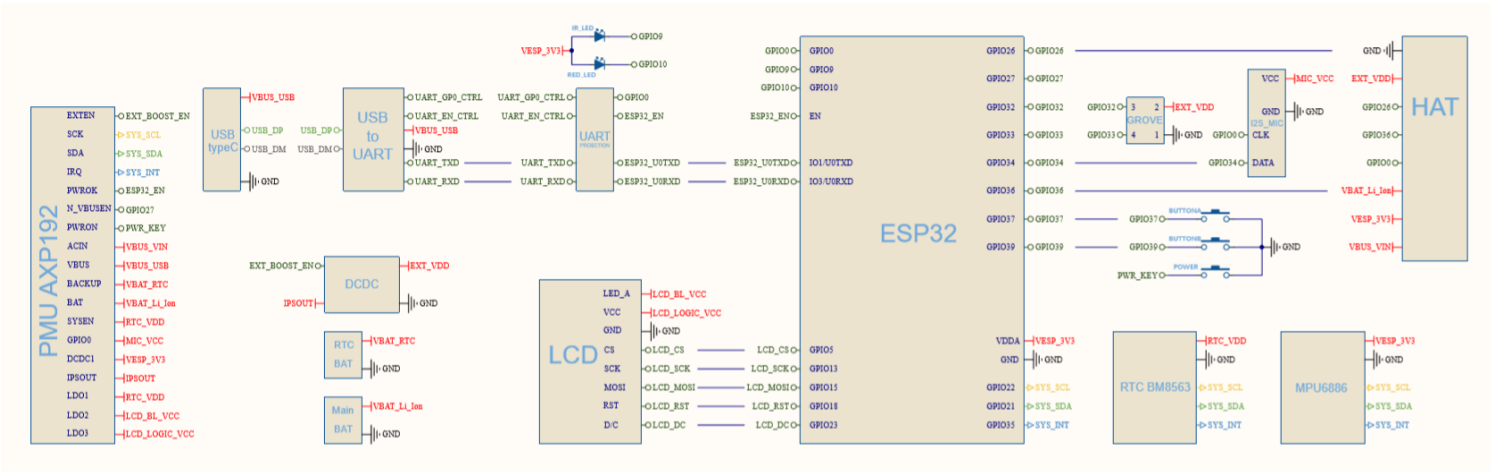
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of function verification can be performed.(Currently EasyLoader is only available for Windows OS)

- 2. After downloading the software, double-click to run the application, connect the M5 device to the computer through the data cable, select the port parameters, click "**Burn**" to start burning.  
(For M5StickC burning, please Set the baud rate to 750000 or 115200)

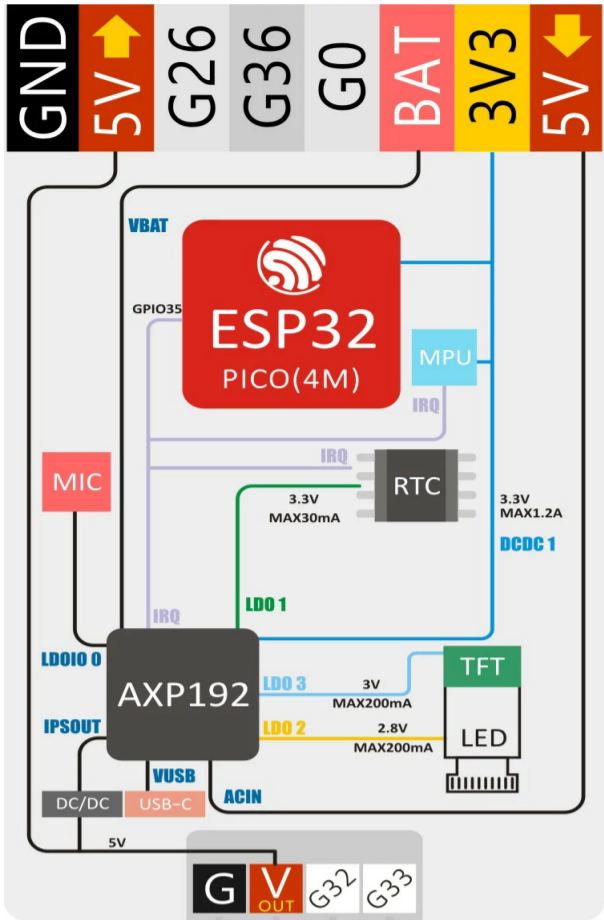
Schematic



PinMap



Power structure block diagram



RED LED & IR Transmitter & BUTTON A & BUTTON B

ESP32	GPIO10	GPIO9	GPIO37	GPIO39
RED LED	LED Pin			
IR Transmitter	Transmitter Pin			
BUTTON A	Button Pin			
BUTTON B	Button Pin			

TFT LCD

Driver IC: ST7735S

Resolution: 80 \* 160

ESP32	GPIO15	GPIO13	GPIO23	GPIO18	GPIO5
TFT LCD	TFT_MOSI	TFT_CLK	TFT_DC	TFT_RST	TFT_CS

GROVE PORT

ESP32	GPIO33	GPIO32	5V	GND
GROVE port	SCL	SDA	5V	GND

MIC (SPM1423)

ESP32	GPIO0	GPIO34
MICPHONE	SCL	SDA

6-Axis posture sensor (SH200Q/MPU6886) & power management IC (AXP192)

ESP32	GPIO22	GPIO21
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power management IC   SCL   SDA

AXP192

Microphone	RTC	TFT backlight	TFT IC	ESP32/3.3V MPU6886/SH200Q	5V GROVE
LDOio0	LDO1	LDO2	LDO3	DC-DC1	IPSOUT

Include

- 1x M5StickC
- 1x USB Type-C(20cm)

Weight and Size

- Package size:55mm x 55mm x 20mm
- Package weight:33g

Related Link

- **datasheet**
  - [ESP32-PICO](#)
  - [ST7735S](#)
  - [BM8563](#)
  - [MPU6886](#)
  - [SH200Q](#)
  - [AXP192](#)
  - [SPM1423](#)

Version Change

Release Date	Product Change
2019.3	Initial public release
2019.8	SH200Q changed to MPU6886
2019.10	Upgrade the bottom and add copper nuts

Example

- **Arduino**
  - [M5StickC facory test code](#)