



# ESP32 Basic Core IoT Development Kit

SKU: K001

**M5Stack BASIC Kit**, like its namesake, is a starter kit among the M5Stack development kit series. Its modular, stackable, scalable, and portable device is powered with an ESP-32 core, which makes it open source, low cost, full-function, and easy for developers to handle new product development on all stages include circuit design, PCB design, software, mold design and production. This Basic kit provides a friendly price and full-featured resources which makes it a good starter kit for you to explore IoT.

*Ever wanted to explore the fastest way of IoT prototyping, M5Stack development board is the perfect solution. Not like others, M5Stack development board is highly productlized, covered with industrial grade case, and* ***ESP32-based*** *development board.* ***ESP32*** *is a hybid Wi-Fi & Bluetooth chip contains a dual-core and 4MB of SPI Flash . Together with 30+ M5Stack stackable modules( M5Modules-link ) , 40+ extendable units( M5Units-link ), and different levels of program language, you can create and verify your IoT product in a very short time. Supported development platforms and program languages: Arduino, Blockly language with UIFlow(link), Micropython. Regardless of what level program skill you have, M5Stack would guide you in every step of the way to realize your idea as well as to the final productilization.*

*If you ever played with ESP8266, you would realize that ESP32 is a perfect upgrade from ESP8266. In comparison, ESP32 is full-feathered with more GPIO, plenty of analog inputs and two analog outputs, multiple extra perpherials( like a spare UART ). Official development platform ESP-IDF have planted with FreeRTOS. With dual-core and real time OS you can get more organized code and much high speed processor.*

M5Stack Basic is consist with two separable parts. the top part has all kinds of processor, chips and some other slot components. The bottom part has a lithium battery, M-BUS(link) socket and extendable pins on both sides.

**Notice: 1)Basic kit have no IMU sensor inside 2)GPIO0, GPIO12, GPIO13, GPIO15, GPIO34, pins that related to I2S are not extended out**

# Product Features

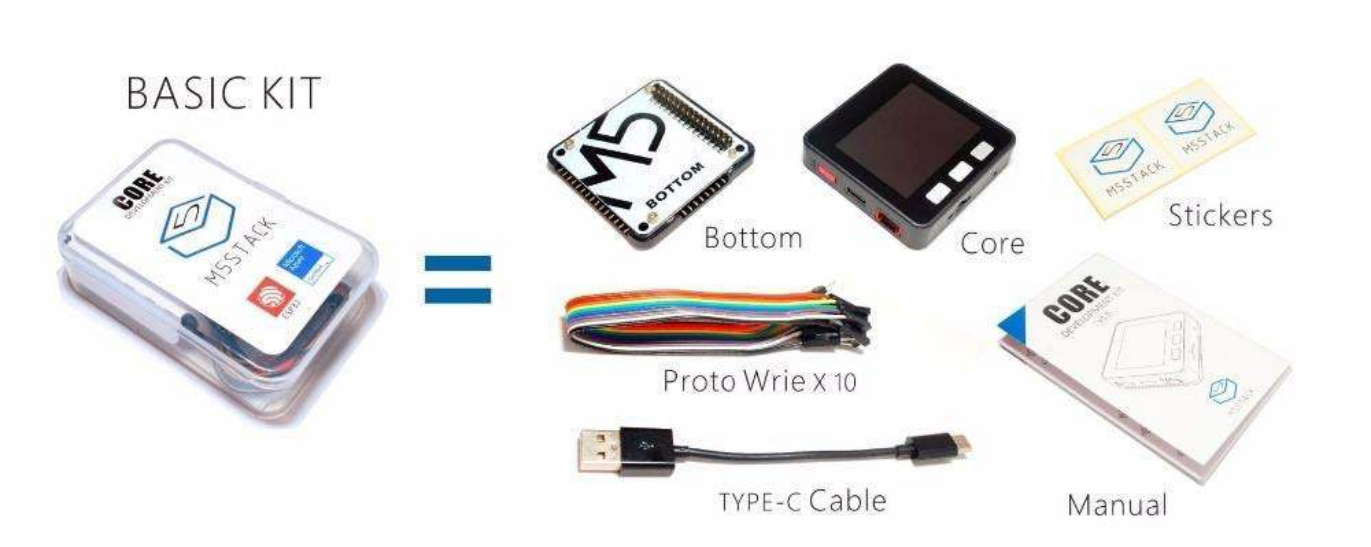
- 5V DC power supply
- USB Type-C
- ESP32-based
- 4 MByte flash + 520K RAM
- Speaker, 3 Buttons, LCD(320*240), 1 Reset
- 2.4G Antenna: Proant 440
- TF card slot (16G Maximum size)
- Battery Socket & 150 mAh Lipo Battery
- Extendable Pins & Holes
- Grove Port
- M-Bus Socket & Pins
- Program Platform:

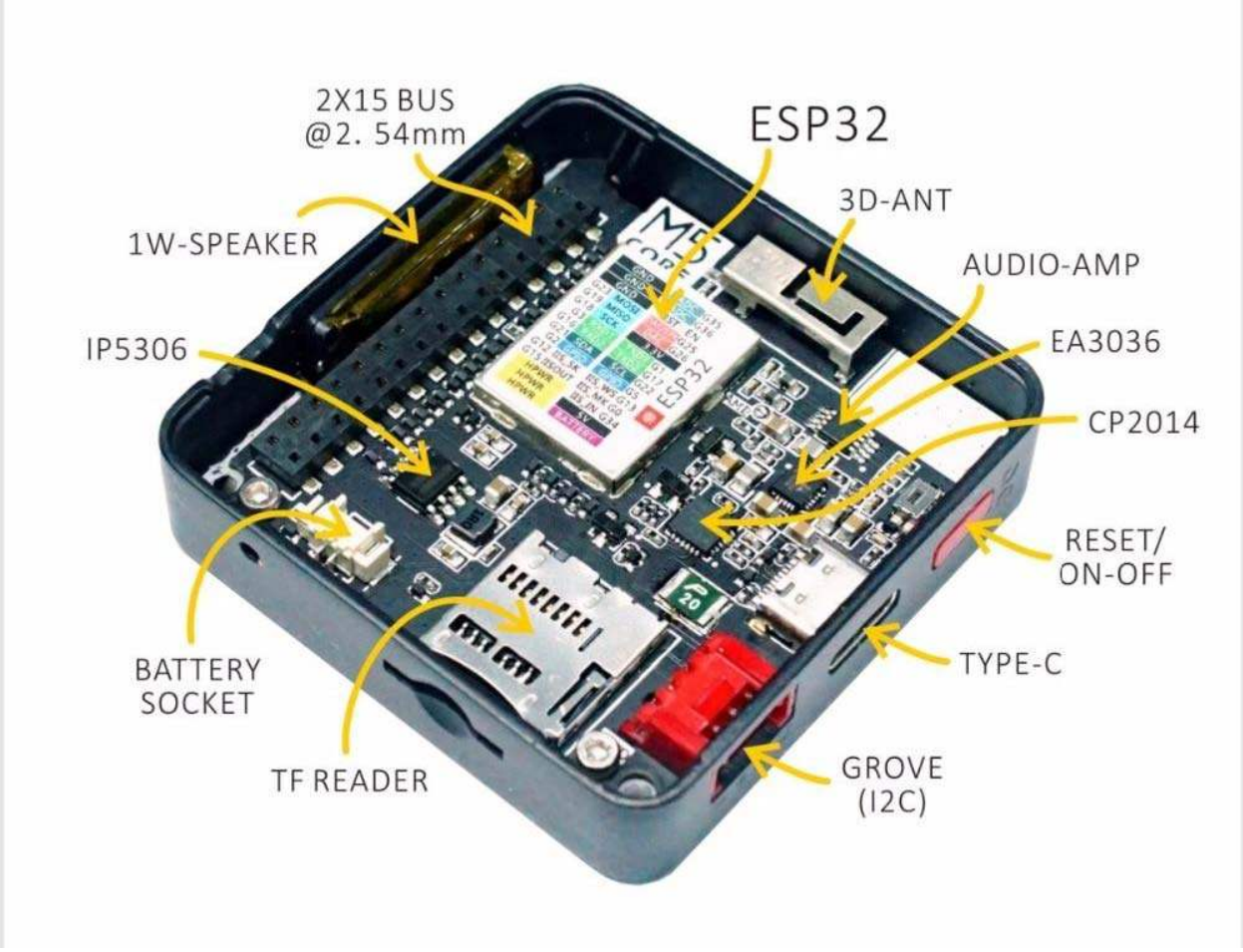
# ESP32 Features

- 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
- 10x capactive touch interface
- 32 kHz crystal oscillator
- PWM/timer input/output available on every GPIO pin
- SDIO master/salve 50MHz
- SD-card interface support

# Kit includes:

- 1x M5Stack BASIC Controller
- 1x Basic Base
- 10x Femal-male Dupont
- Type-C USB cable
- User Manual


BASIC KIT
CORE
MSSTACK
BOTTOM
Bottom
Core
MSSTACK
MSSTACK
Stickers
Proto Wrie X 10
CORE
TYPE-C Cable
Manual


2X15 BUS
@2. 54mm
ESP32
3D-ANT
1W-SPEAKER
AUDIO-AMP
IP5306
EA3036
CP2014
RESET/
ON-OFF
BATTERY
SOCKET
TYPE-C
TF READER
GROVE
(I2C)


https://m5stack.com/products/basic-core-iot-development-kit/10-2-19