

01

Software - Arduino

Arduino Set-up

MEAM.Design : ESP32 : Getting Started

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ESP32

MEAM.Design : ESP32 : Getting Started

Hardware/software Requirements

1. Arduino Integrated Development Environment (IDE)
2. ESP32 NodeMCU board
3. MicroUSB cable
4. WindowsPC or Mac
5. SiLabs CP210x driver (for Mac)

Install Arduino IDE

1. Both Mac and Windows can download Arduino IDE. [Arduino.cc](#) e.g. version (1.8.7) or later.
2. Install according to the instructions

Windows PC Instructions

(You can use this video starting at 5:30 for a reference: <https://www.youtube.com/watch?v=mJcxnaR08Dg>)

1. Go to: <https://github.com/espressif/arduino-esp32>
2. Click Clone or Download→Download ZIP
3. Extract downloaded files.
4. Create new file path in your Arduino folder: C:\Users\ YourName \Documents\Arduino\hardware\espressifesp32 and copy and paste the files from Step 3 here.
5. Go to the Tools folder and run get.exe
6. Test with the Blink Code (see below)

Mac instructions

(You may use this video starting at 1:45 for a reference: <https://www.youtube.com/watch?v=P7RD-DWVuA&t=320s>)

1. Go to: <http://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>
2. Find the "Download for Macintosh OSX", and download [v5]
3. Plug the ESP32 into your computer
4. Install the driver

Arduino File Edit Sketch Tools Help

Auto Format ⌘T

Archive Sketch

Fix Encoding & Reload

Manage Libraries... ⌘⇧I

Serial Monitor ⌘⇧M

Serial Plotter ⌘⇧L

WiFi101 / WiFinINA Firmware Updater

ESP32 Sketch Data Upload

Board: "ESP32 Pico Kit" ▶

Upload Speed: "921600" ▶

Partition Scheme: "Default" ▶

Core Debug Level: "None" ▶

Port ▶

Get Board Info ▶

Programmer ▶

Burn Bootloader ▶

<http://medesign.seas.upenn.edu/index.php/Guides/ESP32-gettingstarted>

Loading OscilloSorta V1.2 to ESP32

- Find:
 - Oscillosortal_2 folder in canvas -> files -> resources
- Copy whole folder (9 files inside) to your Arduino directory
- Double click *Oscillosortal_2.ino*
- Edit the line near the top
`String ssid = "your_SSID_NAME";`
- Connect the micro-USB cable to the ESP32
- Click (➡) <Upload> to Flash code to Arduino.