

ESP32 Arduino IDE

There's an add-on for the Arduino IDE that allows you to program the ESP32 using the Arduino IDE and its programming language. In this tutorial we'll show you how to install the ESP32 board in Arduino IDE whether you're using Windows, Mac OS X or Linux.

Prerequisites: Arduino IDE Installed

Before starting this installation procedure, you need to have Arduino IDE installed on your computer.

You can download and install Arduino IDE by clicking on the following link: arduino.cc/en/Main/Software



Installing ESP32 Add-on in Arduino IDE

To install the ESP32 board in your Arduino IDE, follow these next instructions:

1.In your Arduino IDE, go to File> Preferences

30 E	SP32_data_log	ging Arduino	1.8
File	Edit Sketch	Tools Help	
	New	Ctrl+N	
	Open	Ctrl+0	
	Open Recent		>
	<mark>Sketchbook</mark>		>
	Examples		\geq
	Close	Ctrl+W	
	Save	Ctrl+S	
	Save As	Ctrl+Shift+S	
	Page Setup	Ctrl+Shift+P	
	Print	Ctrl+P	
	Preferences	Ctrl+Comma	
	Quit	Ctrl+Q	

2.Enter the following into the "Additional Board Manager URLs" field:

https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json

Then, click the "OK" button:



Preferences		×
Settings Network		
Sketchbook location:		
C: \Users\sarin\Documents\Ar	Arduino	Browse
Editor language:	System Default v (requires restart of Arduino)	
Editor font size:	17	
Interface scale:	Automatic 100 + % (requires restart of Arduino)	
Theme:	Default theme 🤍 (requires restart of Arduino)	
Show verbose output during:	: Compilation Upload	
Compiler warnings:	None 🗸	
🕑 Display line numbers	Enable Code Folding	
Verify code after upload	Use external editor	
Check for updates on sta	artup Save when verifying or uploading	
Use accessibility features	s	
Additional Boards Manager UR	JRLs: https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json, htt	
More preferences can be edit	ited directly in the file	
C:\Users\sarin\AppData\Local	al\Arduino15\preferences.txt	
(edit only when Arduino is not	ot running)	
	OK	Cancel

Note: if you already have the ESP8266 boards URL, you can separate the URLs with a comma as follows:

https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json, http://arduino.esp8266.com/stable/package_esp8266com_index.json

3.Open the Boards Manager. Go to **Tools > Board > Boards Manager...**

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File Edit Sketch To	ols Help			
Code_Test	Auto Format Archive Sketch	Ctrl+T		
/********	Serial Monitor	Ctrl+Shift+M	∧ Boards Manager	
Complet	WiFi101 Firmware Updater		Arduino AVR Boards Arduino Yún	
<pre>// Load l #include #include #include <0 <</pre>	Board: "Arduino/Genuino U Port Get Board Info Programmer: "AVRISP mkll Burn Bootloader meWire.h>	Jno"	 Arduino/Genuino Uno Arduino Duemilanove or Diecim Arduino Nano Arduino/Genuino Mega or Meg Arduino Mega ADK Arduino Leonardo Arduino Leonardo ETH Arduino/Genuino Micro 	iila a 2560
1		Arduino/Genuir	Arduino Esplora Arduino Mini Arduino Ethernet Arduino Fio Arduino BT LilyPad Arduino USB LilyPad Arduino Arduino Pro or Pro Mini	
			Arduino NG or older	

4. Search for **ESP32** and press install button for the "**ESP32 by Espressif Systems**":



Boards Manager		>
ype All 🗸 e	esp32	
es p32 by Espressif Syste Boards included in this pa ESP32 Dev Module, WEMC <u>More info</u>	ems ackage: OS LoLin32.	Installing

5. That's it. It should be installed after a few seconds.

esp32	
sp32 by Espressif Systems version 1.0.2 INSTALLED Window Snip oards included in this package: SP32 Dev Module, WEMOS LoLin32. lore info	
ielect version 🗸 Install	Remove



Setup Port

Plug the ESP32 board to your computer. With your Arduino IDE open, follow these steps:

1. Select your Board in **Tools > Board** menu (in my case it's the **DOIT ESP32 DEVKIT V1**)

etch_dec12	Auto Format Archive Sketch Fix Encoding & Beload	Ctrl+T		
void se // pi	Serial Monitor Serial Plotter	Ctrl+Shift+M Ctrl+Shift+L	ın	once:
} void lo // pu }	WiFi101 Firmware Updater Board: "DOIT ESP32 DEVKIT V1" Flash Frequency: "80MHz" Upload Speed: "921600" Core Debug Level: "None" Port: "COM4" Get Board Info			Adafruit ESP32 Feather NodeMCU-32S MH ET LIVE ESP32DevKIT MH ET LIVE ESP32MiniKit ESP32vn IoT Uno
	Programmer: "AVRISP mkII" Burn Bootloader			DOIT ESP32 DEVKIT V1 OLIMEX ESP32-EVB OLIMEX ESP32-GATEWAY ThaiEasyElec's ESPino32 M5Stack-Core-ESP32 Heltec_WIFI_Kit_32 Heltec_WIFI_LoRa_32

2. Select the Port (if you don't see the COM Port in your Arduino IDE, you need to install the CP210x USB to UART Bridge VCP Drivers):



