

1 TOTAL MARKET

Adapted from Installing ESP32 in Arduino IDE (Windows, Mac OS X, Linux) | Random Nerd Tutorials Prerequisites: Arduino IDE Installed

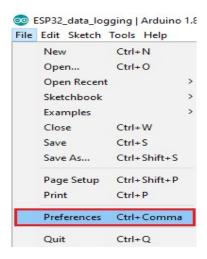
Before starting this installation procedure, make sure you have the latest version of the Arduino IDE installed in your computer. However, in current context, the zip Arduino version will be used instead of downloading from scratch.

Ensure the arduino-1.8.16-windows.zip file has been extracted from the downloads folder. Launch the arduino.exe file from C:\...\arduino-1.8.16-windows\arduino-1.8.16\arduino.exe

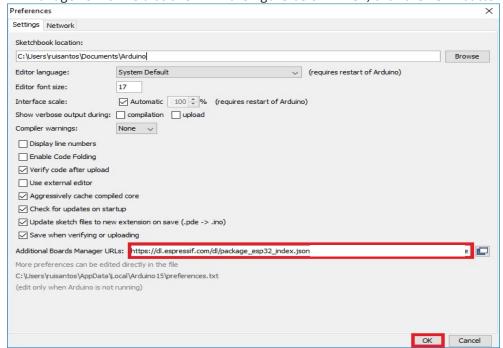
Installing ESP32 Add-on in Arduino IDE

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

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



2. Enter https://dl.espressif.com/dl/package_esp32_index.json into the "Additional Board Manager URLs" field as shown in the figure below. Then, click the "OK" button:

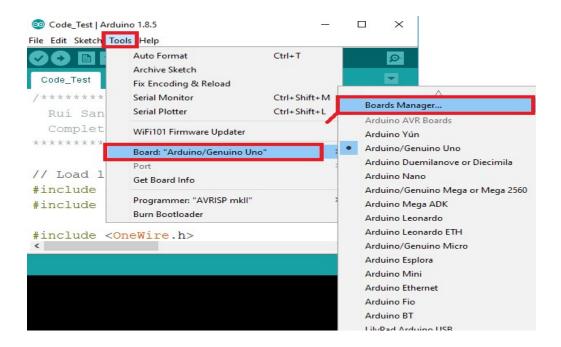




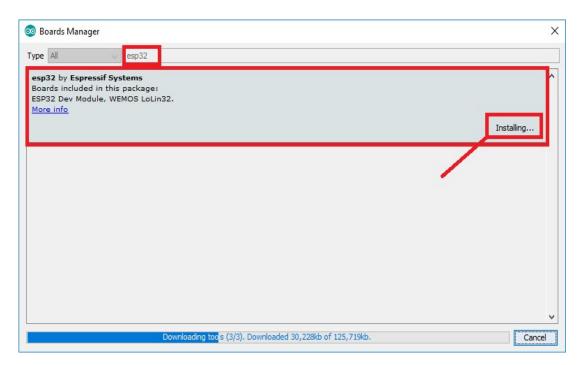
Note: if you already have the ESP8266 boards URL, you can separate the URLs with a comma as follows:

https://dl.espressif.com/dl/package_esp32_index.json

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

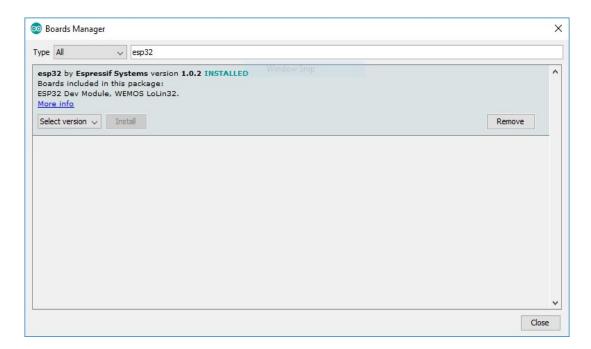


4. Search for ESP32 and press install button for the "ESP32 by Espressif Systems":



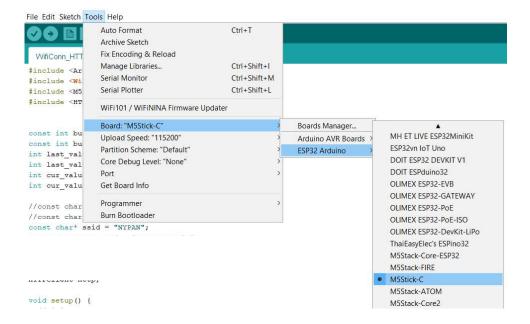


5. That's it. It should be installed after a few seconds.



Plug the M5StickC board to your computer. With your Arduino IDE open, follow these steps:

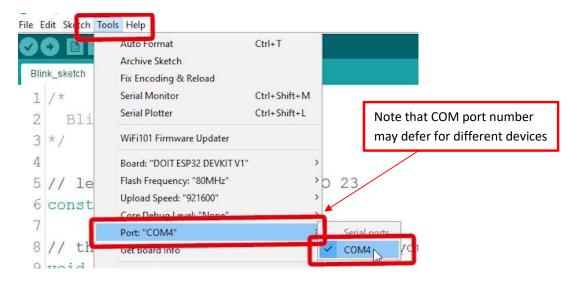
6. Select your Board in **Tools** > **Board** menu (in this case M5StickC)





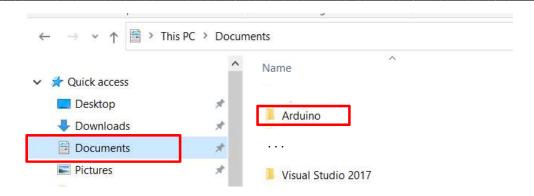
File Edit Sketch Tools Help Auto Format Ctrl+T Archive Sketch Fix Encoding & Reload WifiConn HT Manage Libraries... Ctrl+Shift+I #include <Ar Serial Monitor Ctrl+Shift+M #include <Wi Serial Plotter Ctrl+Shift+L #include <M5 #include <HT WiFi101 / WiFiNINA Firmware Updater Board: "M5Stick-C" const int bu Upload Speed: "115200" const int bu Partition Scheme: "Default" int last_val Core Debug Level: "None" int last_val int cur valu Port int cur_valu Get Board Info Programmer //const char //const char Burn Bootloader

7. Select the available Port displayed (if you don't see the COM Port in your Arduino IDE, you need to install the (<u>CP210x USB to UART Bridge VCP Drivers</u>) if it has not been installed previously:

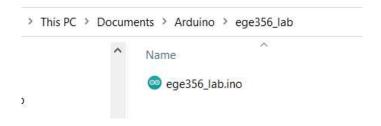


8. From the Arduino.zip, extract the zip file, cut and paste the Arduino folder to your Documents folder.

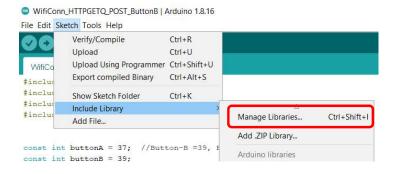




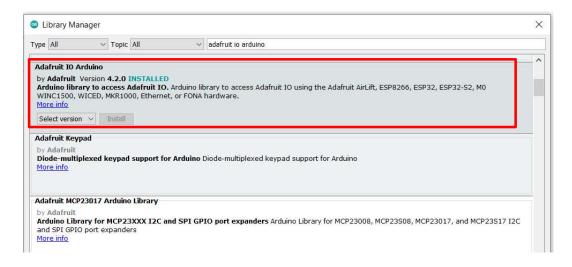
9. Open the following under the Folder and select the following file >



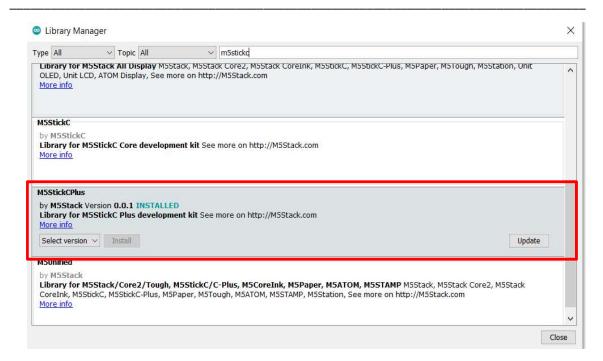
10. Click on Sketch > Include Library > Manage Libraries



11. Install the following libraries if necessary.







Ensure to select the latest version of M5StickC library. When prompted to install additional packages, select the "install all" option.

M5StickC Plus / M5StickC library is required as the use of TFT screen, IMU to obtain the temperature will be required for this lab.