

# Algorithm to start ESP32 on Arduino IDE

## • Requirements:

- Hardware:
  - ESP32
  - Micro USB Cable
- Software:
  - Arduino IDE

## • Steps:

1. After Installing Arduino IDE, ensure you have internet access on your computer because further steps will need internet access for installing ESP32 board files on Arduino IDE.
2. Open Arduino IDE go to “File” in the menu bar and open “Preferences”.
3. As the “Preferences” dialog box opens, copy the URL in the “Additional Board Manager URLs” box highlighted in the image below. After this select “OK”. URL-[https://dl.espressif.com/dl/package\\_esp32\\_index.json](https://dl.espressif.com/dl/package_esp32_index.json)
4. Now go to “Tools>Board>Board Manager”.
5. As soon as you open Board Manager you can see certain download processes going at the bottom of the screen. Wait till this process gets completed. Once this process is completed search for “ESP32” in the search box.
6. You can see the ESP32 package by Espressif Systems in Board Manager select it and then select “Install”.
7. Once installation starts wait for a while till the installation process gets completed. As the process is completed you can see “**INSTALLED**” written beside the ESP32 board name.
8. Now close the Board Manager and go to “Tools>Board” and scroll down, there you can see a complete category of different ESP32 boards under the name “ESP32 Arduino” written in grey-colored fonts. In that select “ESP32 Dev Module” if you are using a standard ESP32 board made by Espressif Systems or select any other depending on which board you are using.
9. After selecting the ESP32 board you can see the board name at the bottom right corner of your Arduino screen changes to the board name selected by you. Besides the board name you can see certain other parameters, these are the main parameters related to the code upload process on ESP32. You can change them from “Tools” in the menu bar. For now, let them remain as it is.
10. Let’s flash one of the example codes in ESP32. Go to “Files>Examples”. Scroll across the examples list you can see separate sections of examples titled “Built-in Examples”, “Examples for any board” etc in grey colored fonts. One such section is “Examples for ESP32 Dev Module”. This section consists of examples exclusively made for ESP32 boards. Flash the example “GetChipID” that gives you the chipId of your ESP32 chip present on your board.
11. Go to “Tools>Port” select the port available in the list and then upload the code.