ESP32 Installation Steps

Now, to install the ESP32 board in the Arduino IDE, you need to follow the below steps −

1- Make sure you have Arduino IDE (preferably the latest version) installed on your machine
2- Open Arduino and go to **File −> Preferences**
3- In the Additional Boards Manager URL, enter
https://dl.espressif.com/dl/package_esp32_index.json

In case you have an existing JSON file's URL in the preferences (this is likely if you've installed ESP8266, stm32duino, or any such additional board in the IDE), you can just append the above path to the existing path, using a comma. An example is shown below, for ESP8266 and ESP32 boards −

http://arduino.esp8266.com/stable/package_esp8266com_index.json,
https://dl.espressif.com/dl/package_esp32_index.json

4- Go to **Tools −> Board−> Boards Manager**. A pop−up would open up. Search for ESP32 and install the **esp32** by **Espressif Systems** board.

Verifying the Installation

5-Go to **Tools −> Boards**. You can see a whole bunch of boards under the **ESP32 Arduino** section. Choose the board of your choice. If you are not sure which board best represents the one you have, you can choose **ESP32 Dev Module**.

6-Next, connect your board to your machine using the USB Cable. You should see an additional COM Port under **Tools−> Port**. Select that additional port. In case you see multiple ports, you can disconnect the USB and see which port disappeared. That port corresponds to ESP32.

Once the port is identified, pick any one example sketch from **File −> Examples**. We will choose the StartCounter example **from File −> Examples −> Preferences −> StartCounter**.

Open that sketch, compile it and flash it into the ESP32 by clicking on the Upload button (the right arrow button, besides the Compile button).

Then open the Serial Monitor using **Tools −> Serial Monitor**,You should see the counter value getting incremented after every ESP32 restart.

Congratulations!! You've set up the environment for working with ESP32.

If you want to turn on lighting:

Go to File > 01.Basics > Blink

```
void setup(){ pinMode(LED_BUILTIN , OUTPUT);   }

void loop(){ digitalWrite(LED_BUILTIN , HIGHT);  // Turn the LED on .

              delay(500);

              digitalWrite(LED_BUILTIN , LOW);  // Turn the LED off .

            delay(500); }
```