

Intro: Steps to Setup Arduino IDE for NODEMCU ESP8266 WiFi IOT chip for Home Automation

In the below Instructable we will learn how to install Arduino IDE for ESP8266 WiFi IOT chip for Home Automation so by the end of this Instructable we can run arduino code on ESP8266 so lets have fun :)



Step 1: Installing Arduino IDE Software

Install Arduino IDE software from the link <http://www.arduino.cc/en/main/software>

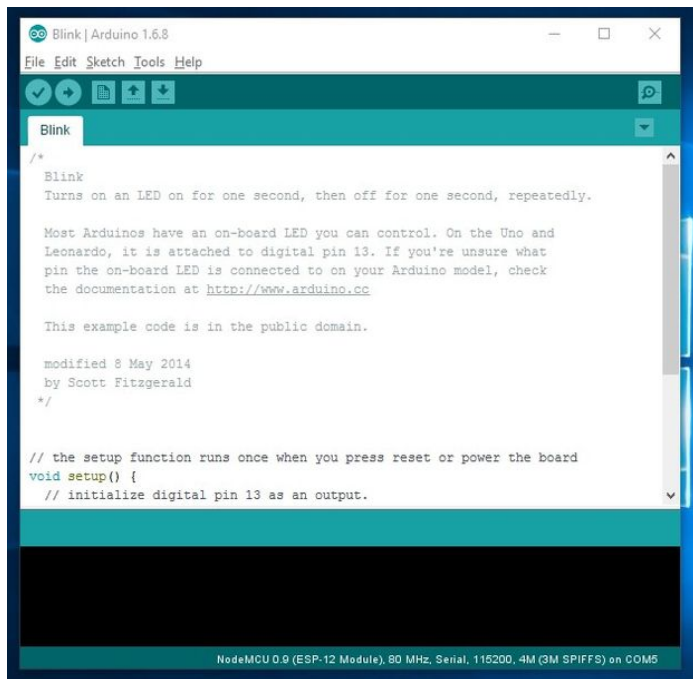
Step 2: Arduino IDE icon

After installing Arduino IDE icon is created on the Desktop as show in the figure



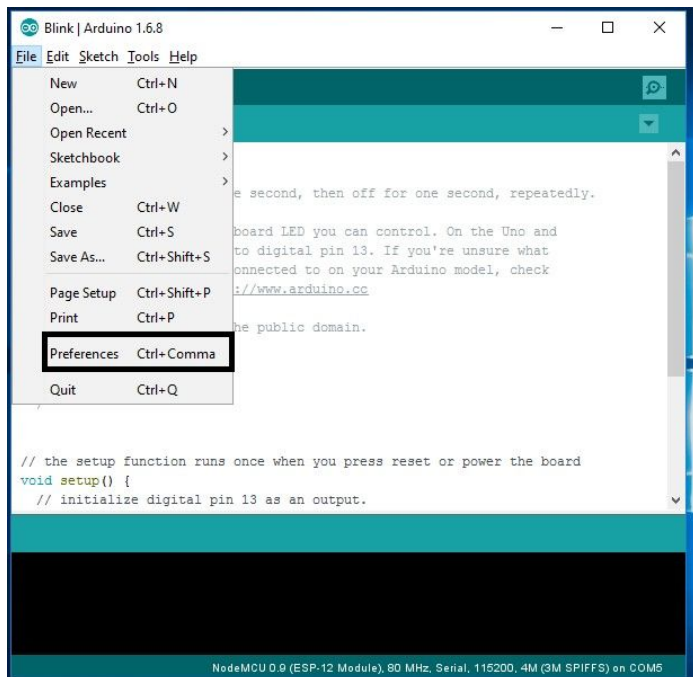
Step 3: Opening Arduino IDE

Click on the icon to open the Arduino window as shown in the figure



Step 4: Preferences

Open the File and click on the Preferences as shown in the figure

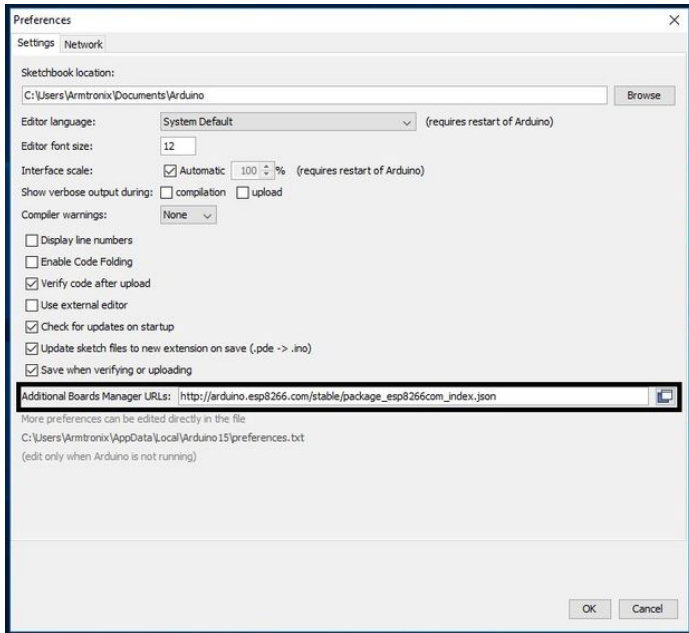


Step 5: Adding ESP8266 Board Manager

In the Additional Boards Manager enter below URL.

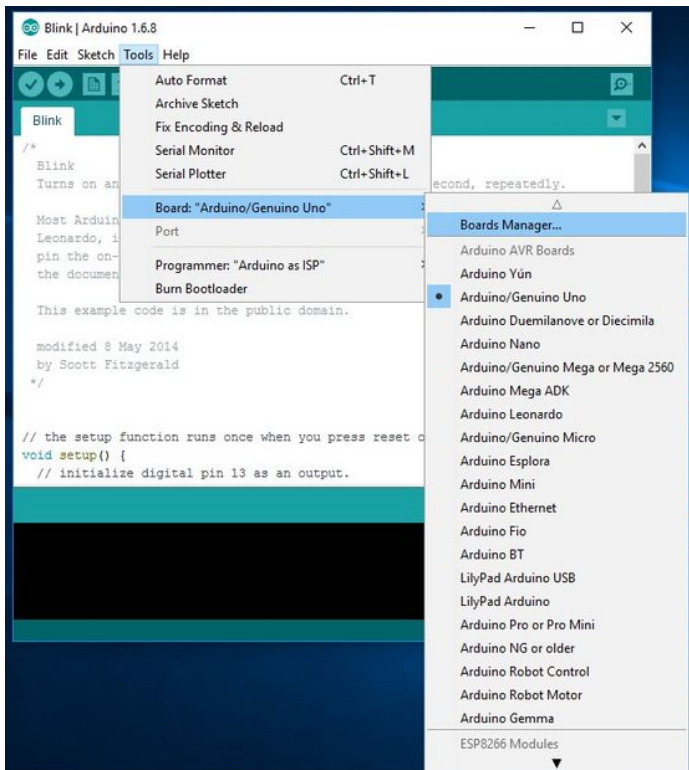
http://arduino.esp8266.com/stable/package_esp8266com_index.json

As highlighted in the figure and enter OK.



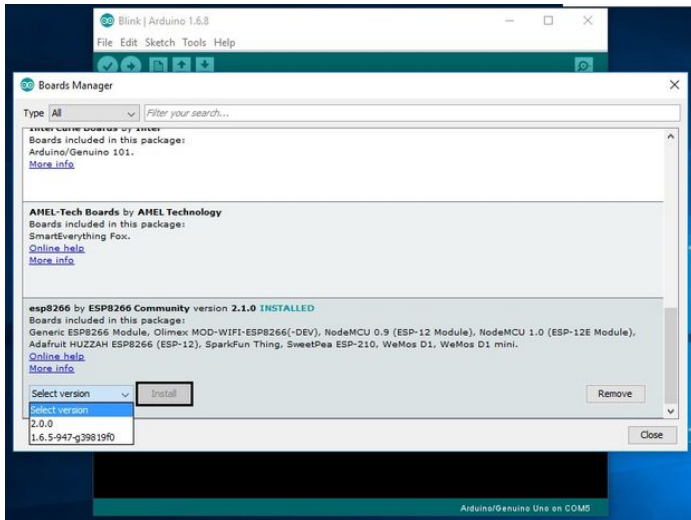
Step 6: Selecting Board

Now open the tools in that select board: "Arduino/Genuino Uno" and click on the Boards Manager as shown in the figure



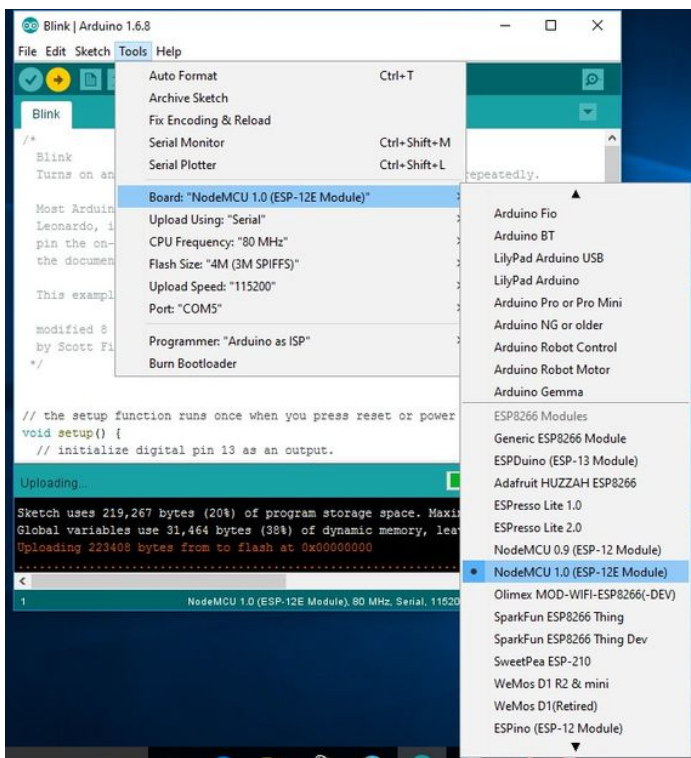
Step 7: ESP8266 Board Package

The Boards Manager window opens, scroll the window page to bottom till you see the module with the name ESP8266. Once we get it, select that module and select version and click on the Install button. When it is installed it shows Installed in the module as shown in the figure and close the window.



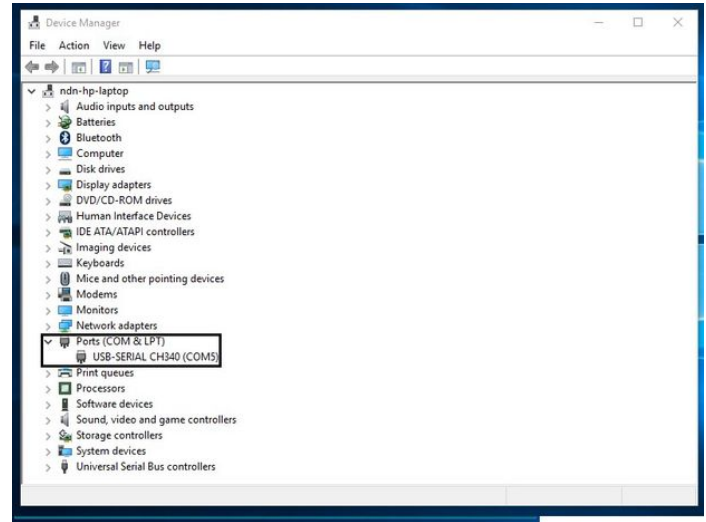
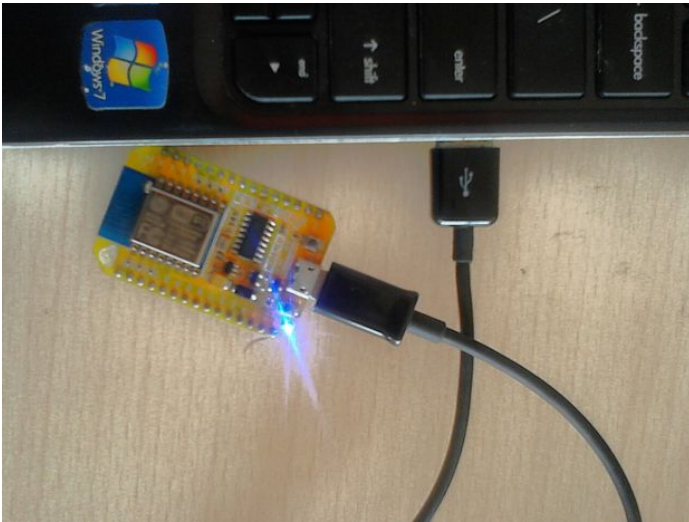
Step 8: Selecting ESP8266 Arduino Board

To run the esp8266 with Arduino we have to select the Board: "Arduino/Genuino Uno" with NodeMCU 1.0 (ESP-12E Module) by scrolling down, as shown in the figure



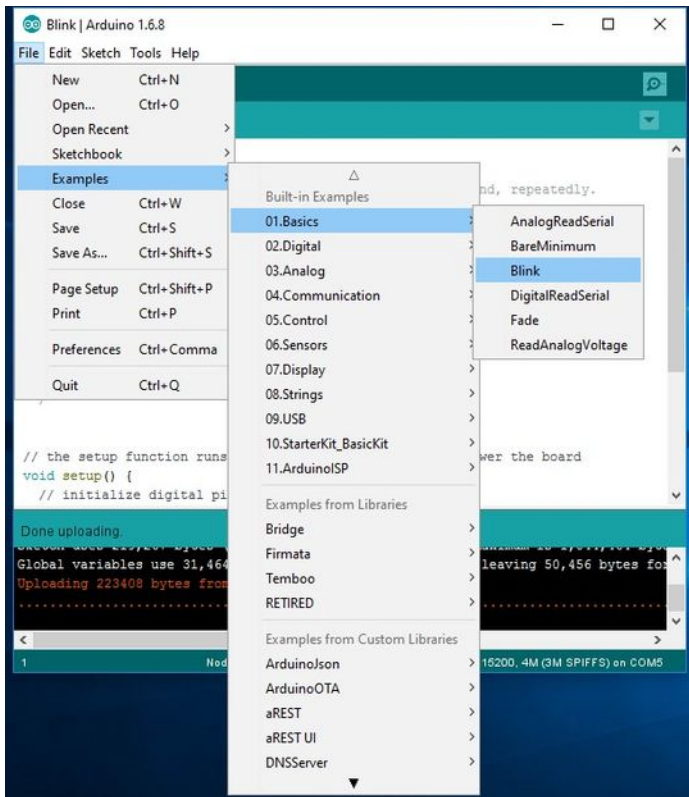
Step 9: Connecting ESP8266 to the PC

Now Let's connect the ESP8266 module to your computer through USB cable as shown in the figure. When module is connected to the USB, COM port is detected ex: here COM5 shown in the figure.



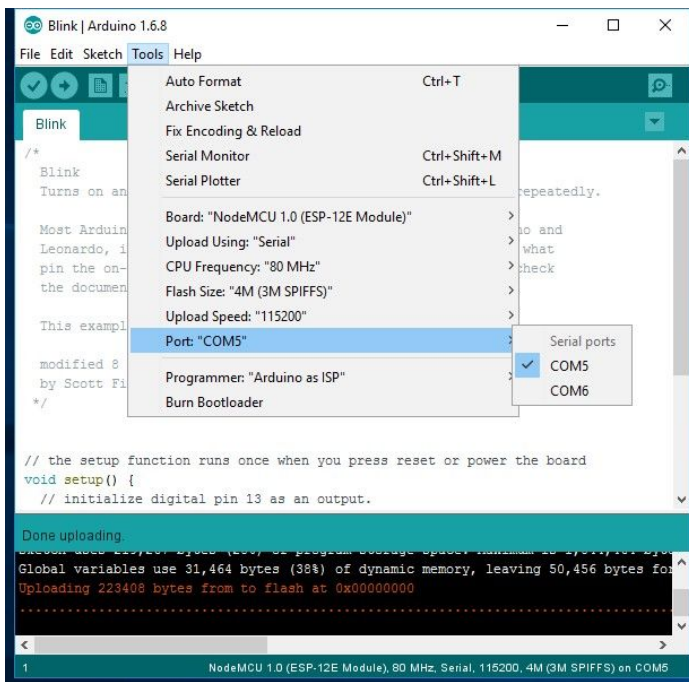
Step 10: Selecting Example Program in Arduino IDE

Now open the File tab in that go to the Examples in that enter into Built-in example, go to 01.Basics and click on Blink to open the window



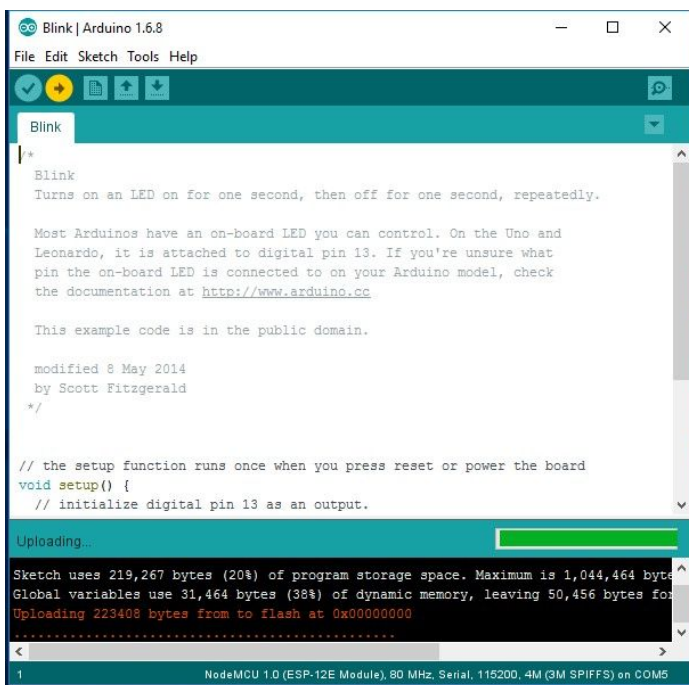
Step 11: Selecting COM Port

The Blink example is open in the window and click on tools to select the port: "COM" based on esp8266 module is connected to your COM port of computer. To select COM port refer previous steps.



Step 12: Uploading the Program to ESP8266 module

Click on the right arrow shown in the figure to upload the program to the module



Step 13: Adding Libraries

In case you need to add the libraries to the Arduino follow the example path is shown in the figure i.e C:\Users\Armtronix\Documents\Arduino\libraries. Enter into the libraries folder then paste the file in that as shown below.

