

(https://cdn.instructables.com/ENBPBQIUIQEM11GQ/ENBPBQIUIQEM11GQ-MEDIUM.jpg)

This short Instructable details how to set up and configure your Arduino IDE such that you can write and compile code for the ESP8266-01. Although primarily intended for the Windows PC (Win 7) it should work equally well for a MAC.

It was written for Arduino IDE version 1.6.9 but Arduino documentation suggests this method has been available since 1.6.4 onwards. Though only 1.6.9 (and 1.6.8) was tested for this Instructable.

The prose does not cover the programming process, for this See Instructable 'Practical Circuit Construction with Strip Board'.

<https://www.instructables.com/id/Practical-Circuit-Construction-With-Strip-Board>

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What you will need;

1. ESP8266-01 Programmer board
2. PC
3. Some knowledge of the Arduino IDE
4. As always, some patience.

It covers the following steps;

1. Downloading the Arduino IDE
2. Adding the ESP8266 to the boards manager
3. Installing the new board

Step 1: Downloading the Arduino IDE

About This Instructable

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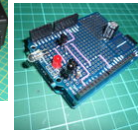
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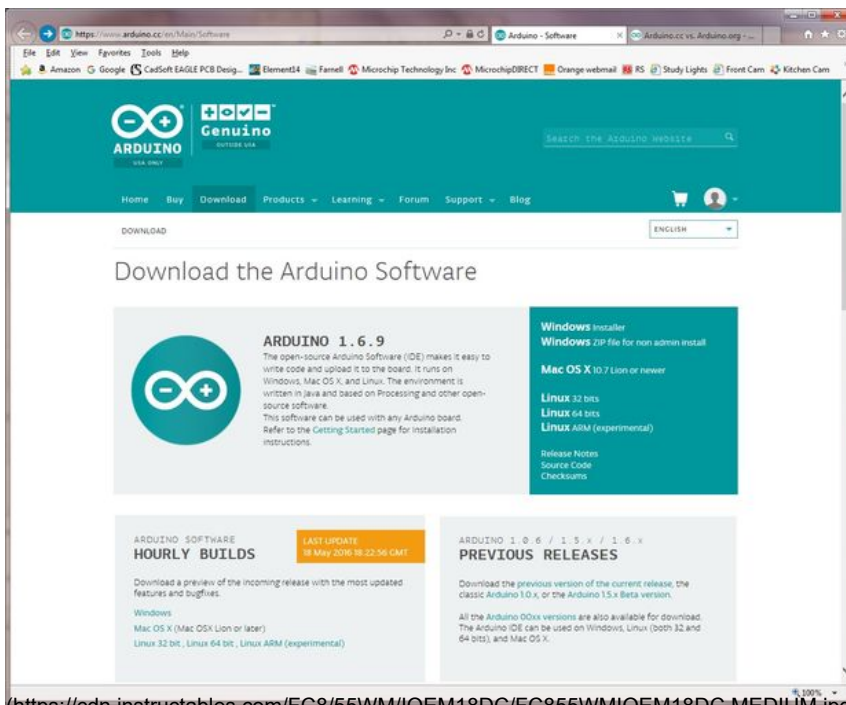
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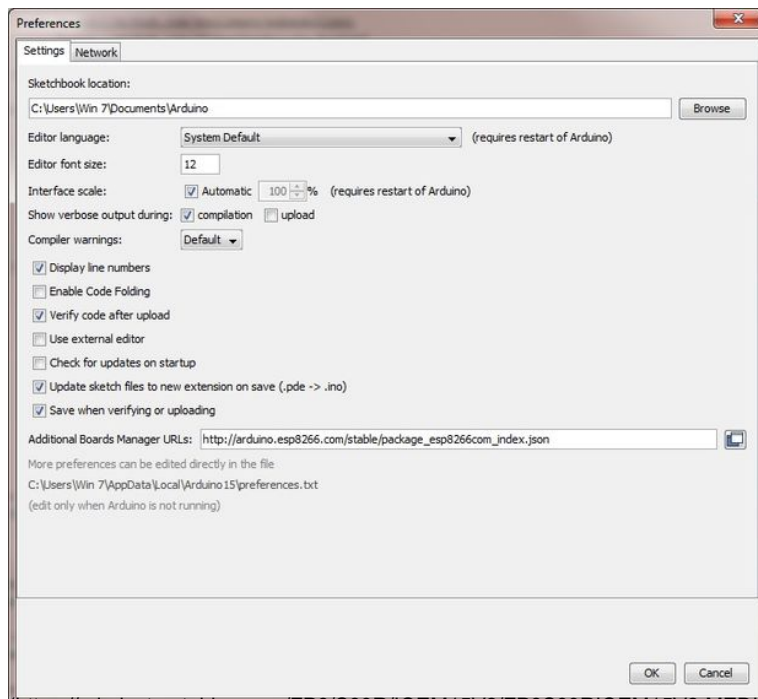


To get your copy of the Arduino IDE carryout the following;

1. Go to <https://www.arduino.cc/en/Main/Software>
(<https://www.arduino.cc/en/Main/Software>)
2. Select Windows installer (or the correct one for your OS of choice)
3. Close any Arduino IDEs you may have open
4. Double click the '.exe' and carryout the install. Selecting Yes when prompted.

Note : The installer will want to uninstall any earlier versions of the Arduino IDE you may have. It won't remove any of your sketches or libraries but will remove anything in the Programs Files directory (Windows Users)

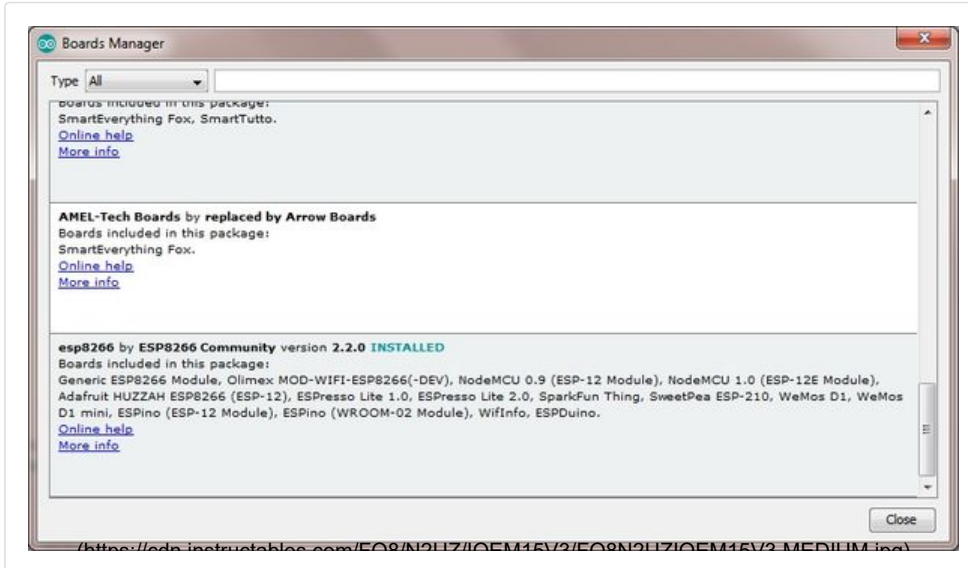
Step 2: Adding the ESP8266 to the Boards Manager



Next install the ESP8266 Arduino Core by following these instructions;

1. Open Arduino IDE.
2. Select; 'File' -> 'Preferences'.
3. From 'Settings' Tab enter the following URL into the 'Additional Boards Manager URLs:' Text box.
http://arduino.esp8266.com/stable/package_esp8266com_index.json
(http://arduino.esp8266.com/stable/package_esp8266com_index.json)
4. Click 'Ok'

Step 3: Now Install the ESP8266 Boards



Carryout out the following;

1. Select; 'Tools' -> 'Board:(Your current board selection)' -> 'Boards Manager...'
2. From the 'Boards Manager' Dialogue, locate the entry for ESP8266 by ESP8266 Community (it was right at the bottom for me) and select 'Install' (the button on the right). At the time of writing v2.2.0 was the most recent.
Note: It may take some time, there is a lot to download.
3. Click close.
4. That's it you're done.

Choice of Board

I found the following board selection and programming configuration worked well for me;

1. Select; Tools -> Board: -> (Select the board of your choice). 'Generic ESP8266 Module'
2. Select; Tools -> Flash Mode: -> 'DIO'
3. Select; Tools -> Flash Frequency: -> '40MHz'
4. Select; Tools -> CPU Frequency: -> '80 MHz'
5. Select; Tools -> Flash Size: -> '512K (64K SPIFFS)'
6. Select; Tools -> Debug Port: -> 'Disabled'
7. Select; Tools -> Debug Level: -> 'None'
8. Select; Tools -> Reset Method: -> 'ck'