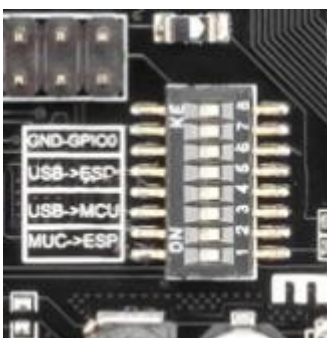


Specifications

Microcontroller	ATmega328
IC Wi-Fi	ESP8266
USB-TTL converter	CH340G
Power Out	5V-800mA
Power IN. USB	5V (500mA max.)
Power IN. VIN/DC Jack	9-24V
Power Consumption	5V 800mA
Logic Level	5V
Wifi	Wi-Fi 802.11 b/g/n 2.4 GHz
USB	Micro USB
Clock Frequency	16MHz
Operating Supply Voltage	5V
Digital I/O	14
Analog I/O	6
Memory Size	32Mb
Interface Type	serial\OTA
Operating temperature	-40°C/+125°C
Length×Width	53.34×68.58mm
Weight	8
antenna	Buil-in\external antenna

It is a customized version of the classic ARDUINO UNO R3 board. Full integration of microcontroller Atmel ATmega328 and IC Wi-Fi ESP8266 with 32 MB flash memory, and USB-TTL converter CH340G on one board. All modules can work together or independently.

On the board where the switch of mode of operation with 8 position

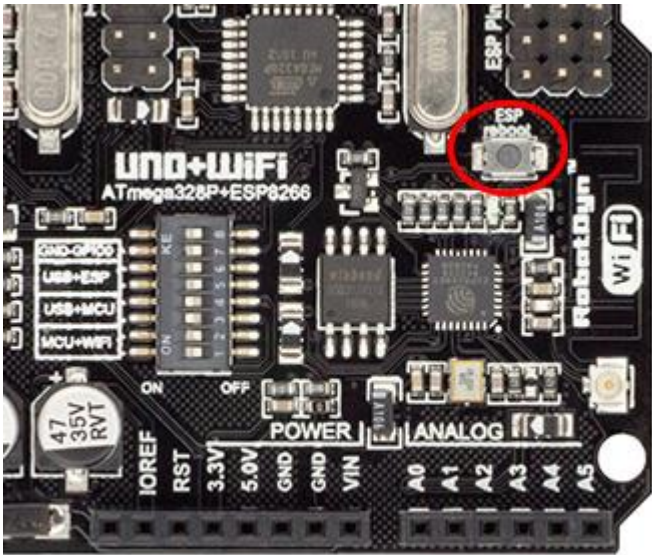


Switch status and mode selection:

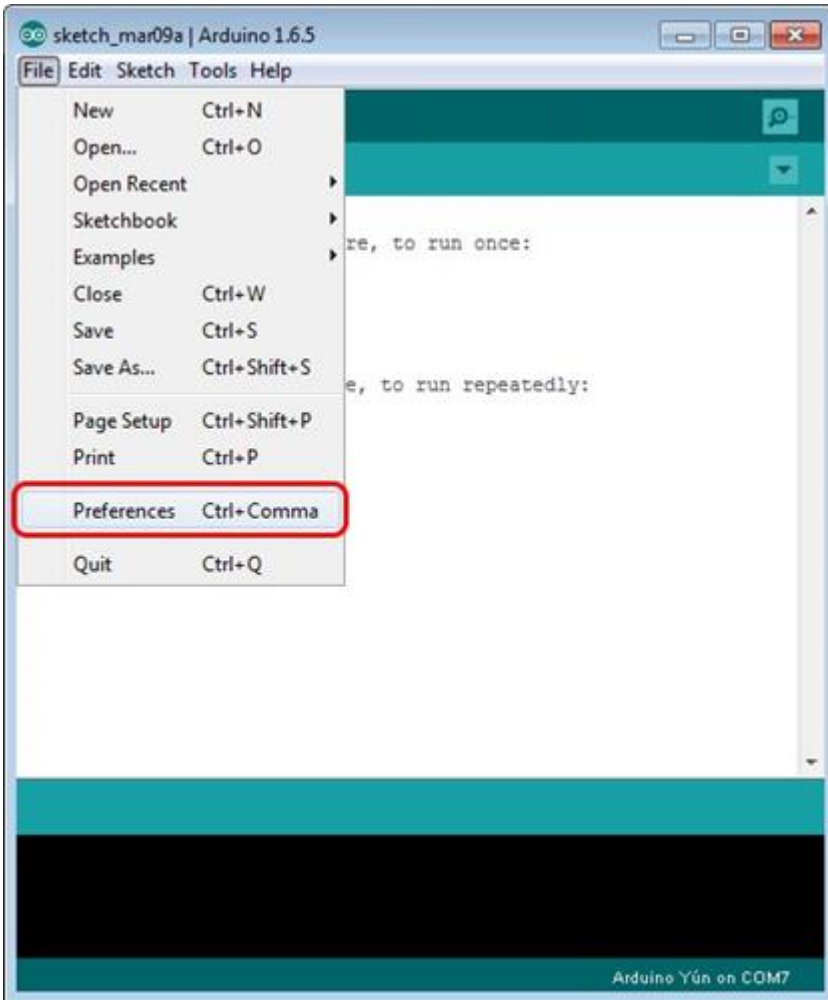
	1	2	3	4	5	6	7	8
CH340 connect to ESP8266 (upload sketch)	OFF	OFF	OFF	OFF	ON	ON	ON	NoUSE
CH340 connect to ESP8266 (connect)	OFF	OFF	OFF	OFF	ON	ON	OFF	NoUSE
CH340 connect to ATmega328 (upload sketch)	OFF	OFF	ON	ON	OFF	OFF	OFF	NoUSE
Mega328+ESP8266	ON	ON	OFF	OFF	OFF	OFF	OFF	NoUSE
All modules work independent	OFF	OFF	OFF	OFF	OFF	OFF	OFF	NoUSE

After choosing the mode of the board can proceed to setting up the IDE

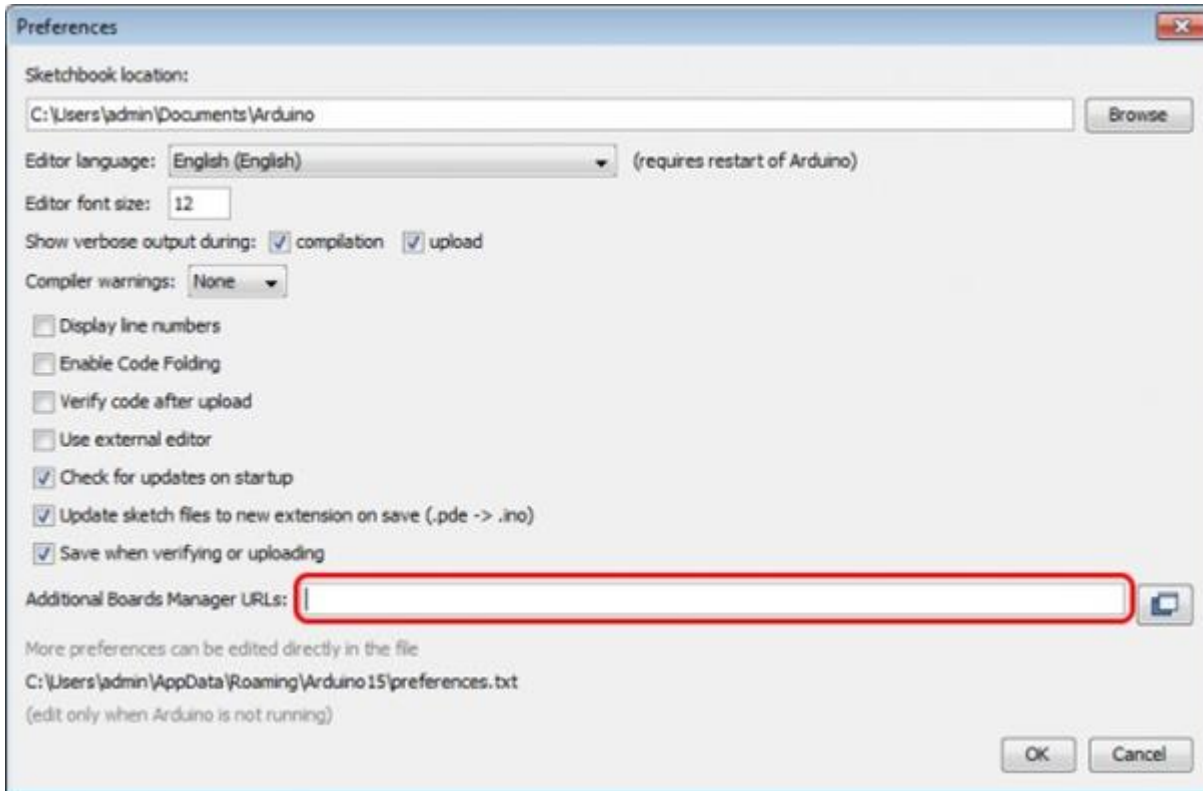
It is important that when the ESP8266 module is programming, it is necessary to press the button "ESP Reboot"



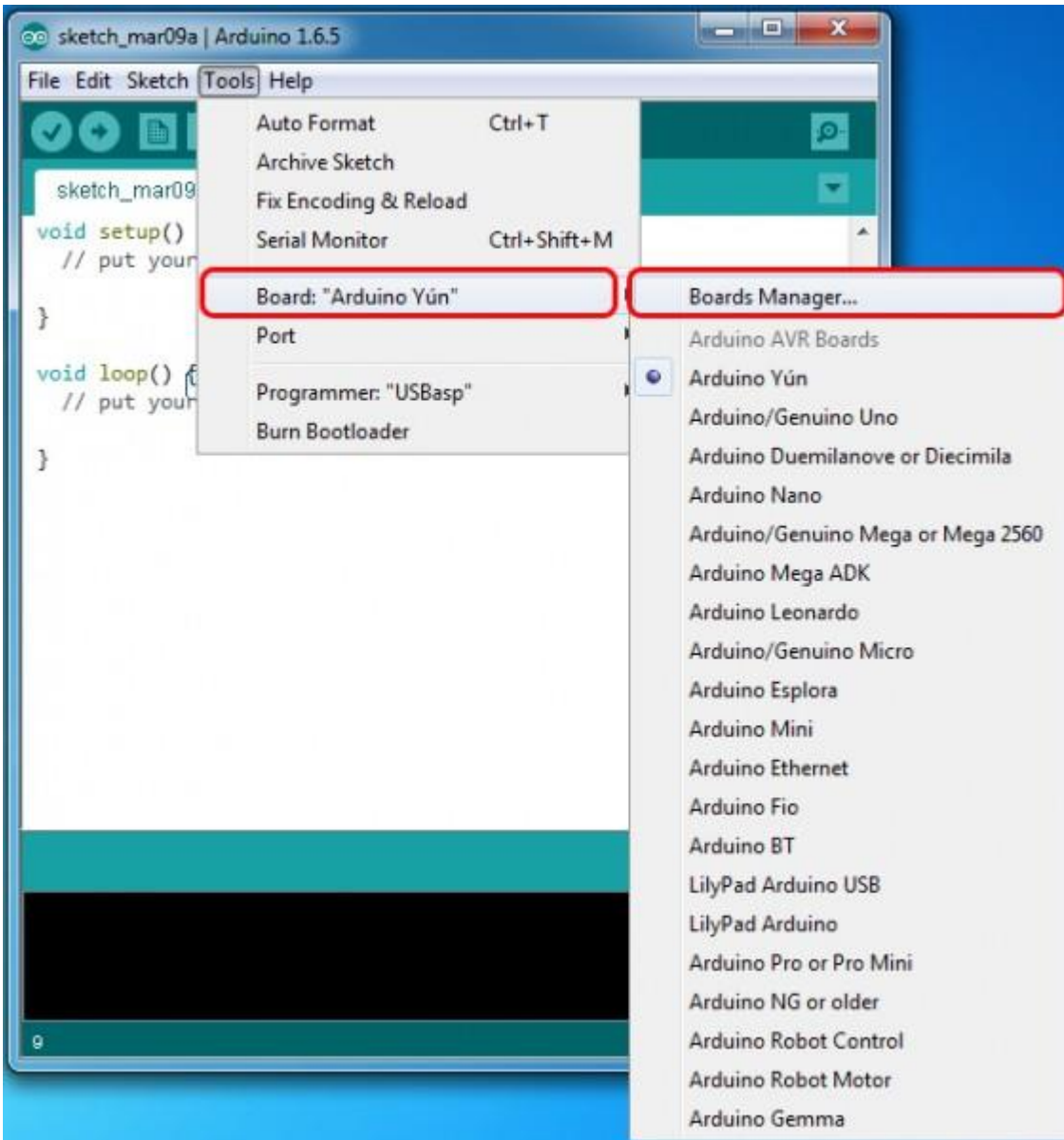
To begin open the Arduino IDE programming environment and go to settings



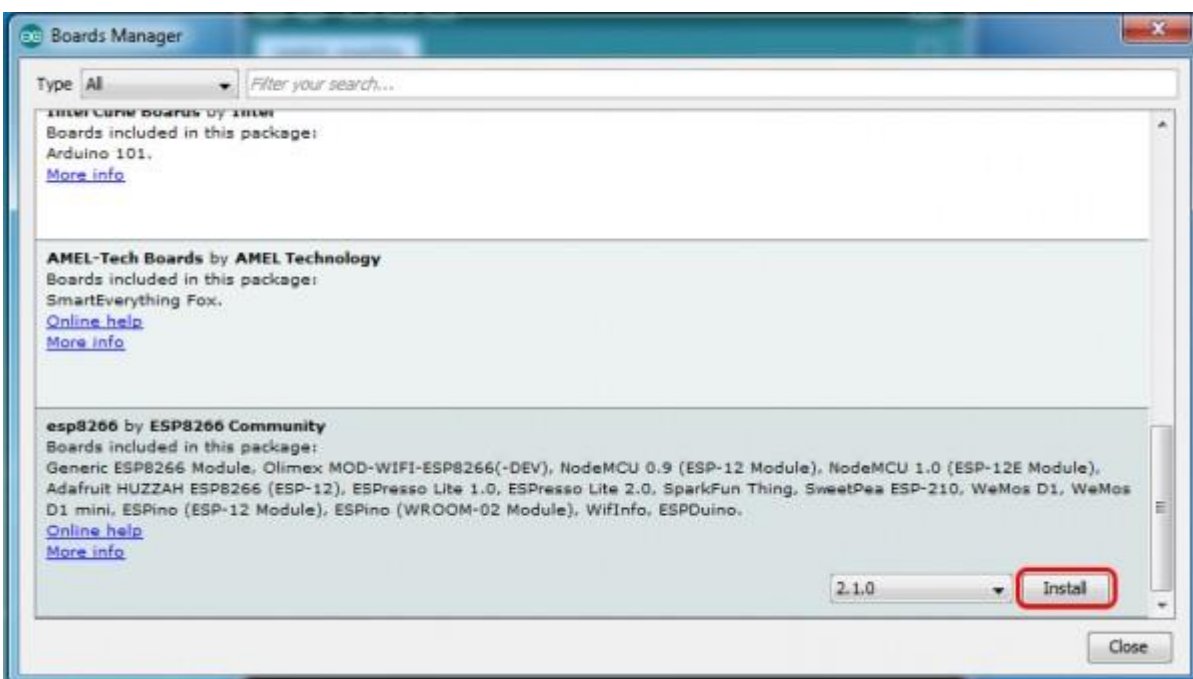
Then in the window that appears in the row Additional Boards Manager URLs (marked in red) insert http://arduino.esp8266.com/stable/package_esp8266com_index.json link for installation in Arduino IDE additional scripts that would work with the modules ESP8266, and click OK



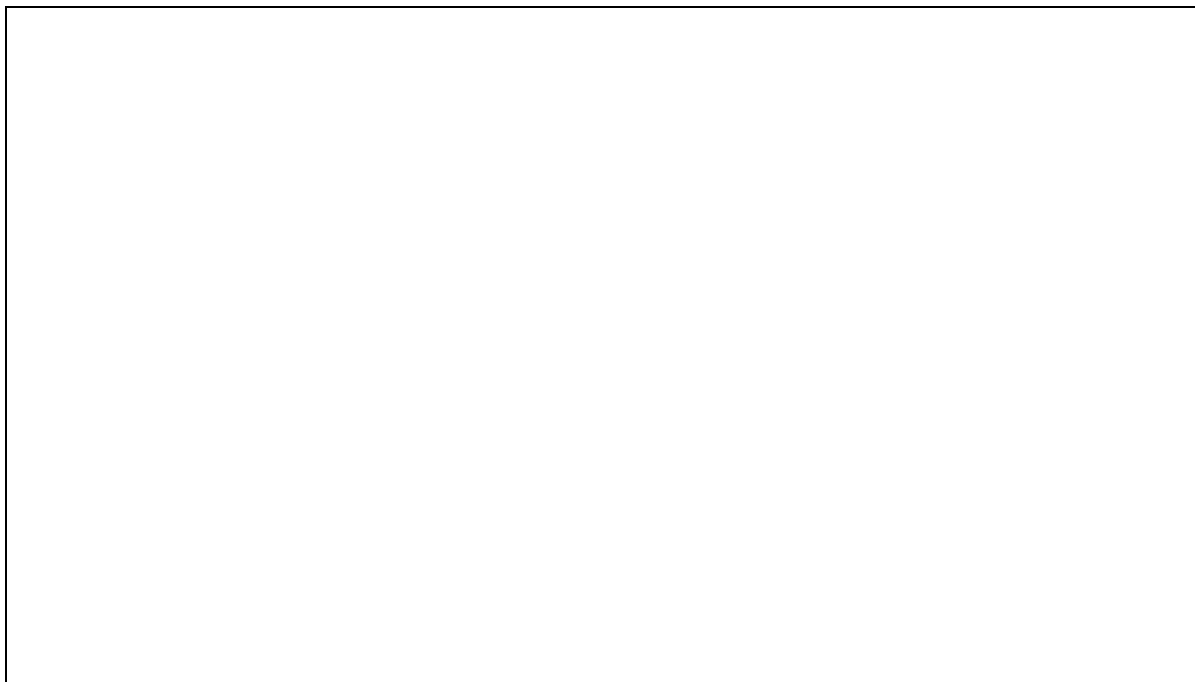
Then go to the Tools> Board> Boards Manager



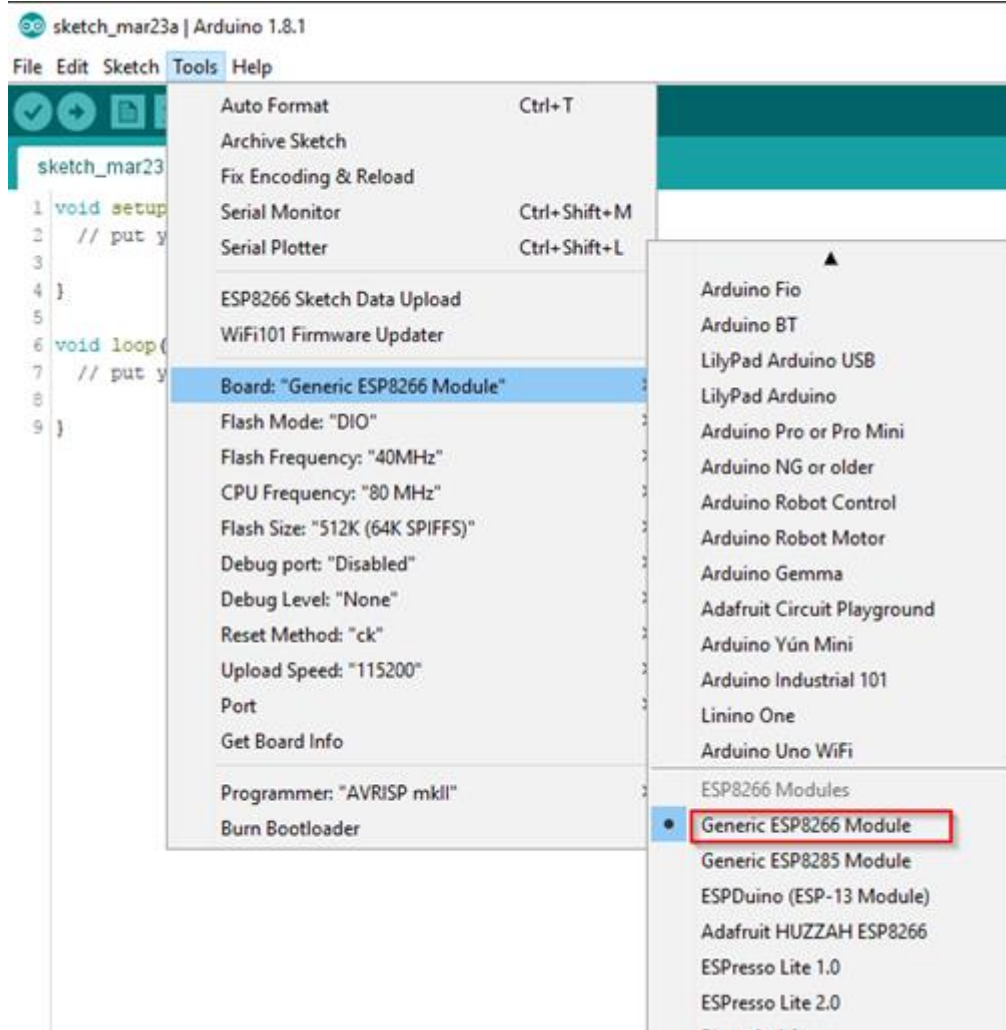
In the window that appears, scroll through the list down to the script esp8266 by ESP8266 Community and click.



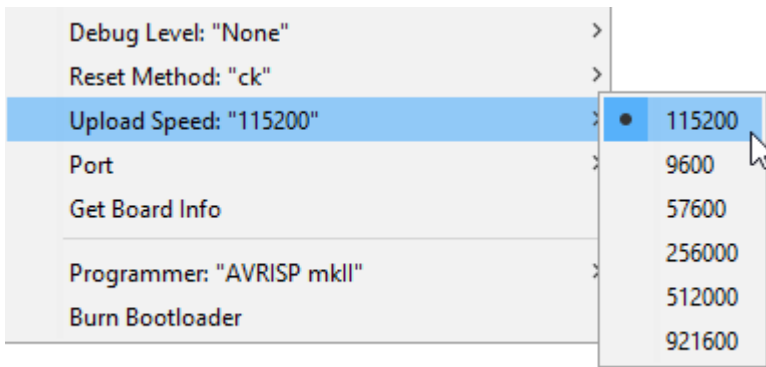
In the lower right corner will be able to select the version of the software, select the version 2.1.0 (the newest) and click the Install button



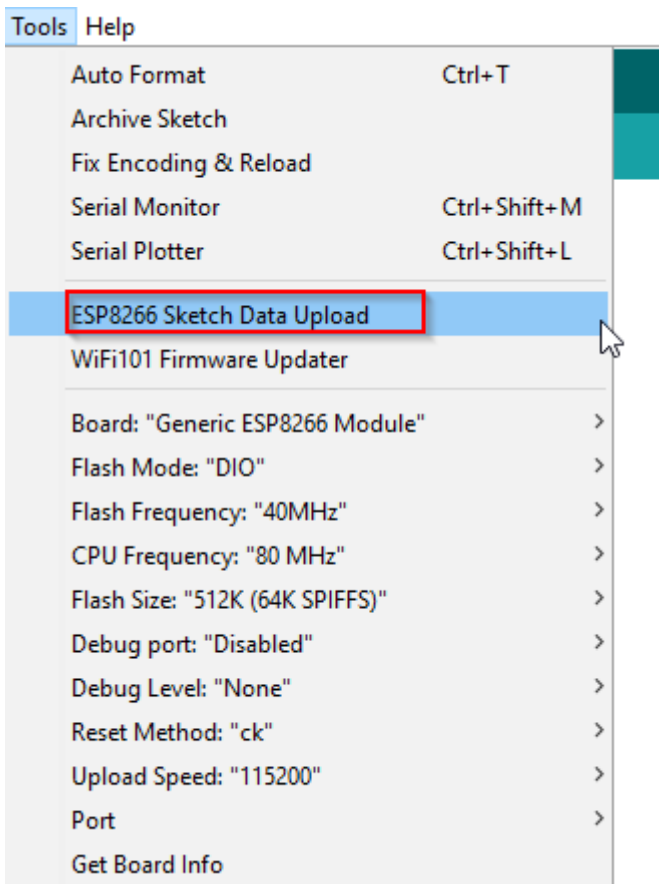
After installation, close the window and go to Tools> Board and see the list of available devices on the chip programming ESP8266



Next, you need to select the card as shown in the picture (Generic ESP8266 module)



Select the upload speed - 115200



=====test sketch=====

```
void setup()
{ Serial.begin(115200);
pinMode(14,OUTPUT);
delay(500);
Serial.println("AT+CIPMUX=1");
delay(2000);
Serial.println("AT+CIPSERVER=1,5000");
delay(2000);
Serial.println("AT+CIPSTO=3600");
delay(2000); }
```

```
void loop()
{ while(Serial.available())
{ char Rdata;
Rdata=Serial.read();
if(Rdata=='A'|Rdata=='a')
{ digitalWrite(14,HIGH);
delay(50); }
else if(Rdata=='B'|Rdata=='b')
{ digitalWrite(14,LOW);
delay(10);
digitalWrite(14,HIGH);
delay(10);
digitalWrite(14,LOW); }
else
{ digitalWrite(14,LOW); } }
```