

1.6inch SPI Module user manual

Product Description

The 1.6 module is tested using the ESP8266MOD D1 Mini development board, Both the test program and the dependent libraries are used in conjunction. Please Configure and test according to the using instructions and the wiring instructions.

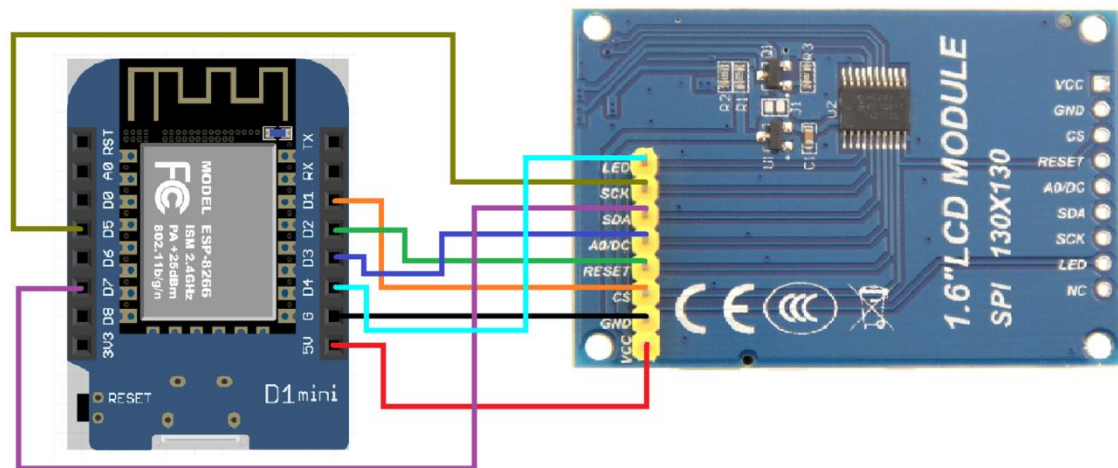
Pin Description

1.6inch LCD Module pin description table		
NUMBER	PIN	DESCRIPTION
1	LED	LCD backlight control pin
2	SCK	LCD SPI bus clock pin
3	SDA	LCD SPI bus write data pin
4	A0/DC	LCD register / data selection control pin
5	RESET	LCD reset control pin
6	CS	LCD chip selection control pin
7	GND	Power ground
8	VCC	Power positive

ESP8266MOD D1 mini Development board module pin description table		
PIN	ESP8266 Internal pin	DESCRIPTION
TX	GPIO1	TXD
RX	GPIO3	RXD
A0	ADC	Analog input, max 3.3V input
D0	GPIO16	I/O
D1	GPIO5	IO, SCL
D2	GPIO4	IO, SDA
D3	GPIO0	IO, 10k Pull-up
D4	GPIO2	IO, 10k Pull-up, BUILTIN_LED
D5	GPIO14	IO, SCK
D6	GPIO12	IO, MISO
D7	GPIO13	IO, MOSI
D8	GPIO15	IO, 10k Pull-down, SS
G	GND	Ground
5V	None	Power 5V
3V3	3.3V	Power 3.3V
RST	RST	Reset
All IO's working level is 3.3 V, and it can withstand 5 V in a second. All IO have interrupt/pwm/I2C/one-wire supported(except D0)		

Using Description

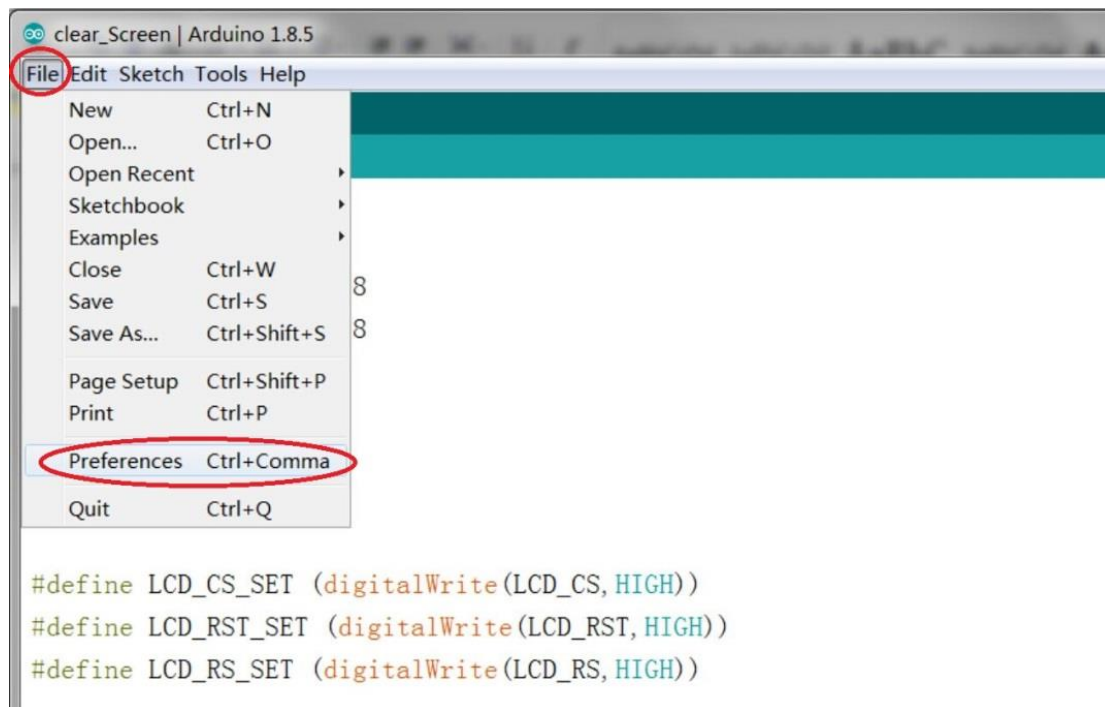
1.Wiring Description



1.6inch LCD module wiring description table		
NUMBER	Module Pin	ESP8266MOD D1 mini Development board corresponding wiring pin
1	LED	D4 (if don't need to control, please connect to 3.3V)
2	SCK	D5
3	SDA	D7
4	A0/DC	D3
5	RESET	D2
6	CS	D1
7	GND	G
8	VCC	5V

2.Installing ESP8266 Hardware package

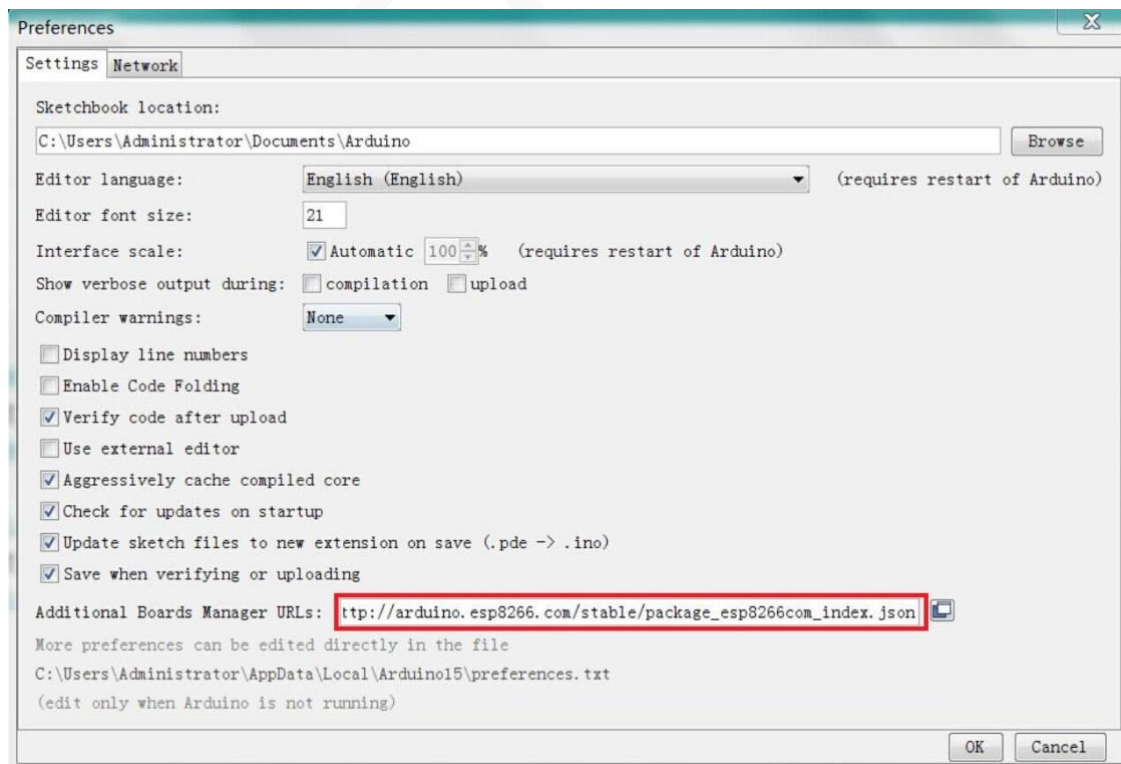
- A. Installing Arduino IDE 1.8.5, download and install method see official website: <https://www.arduino.cc/>
- B. Open Arduino IDE and click File->Preferences, As shown in the following figure:



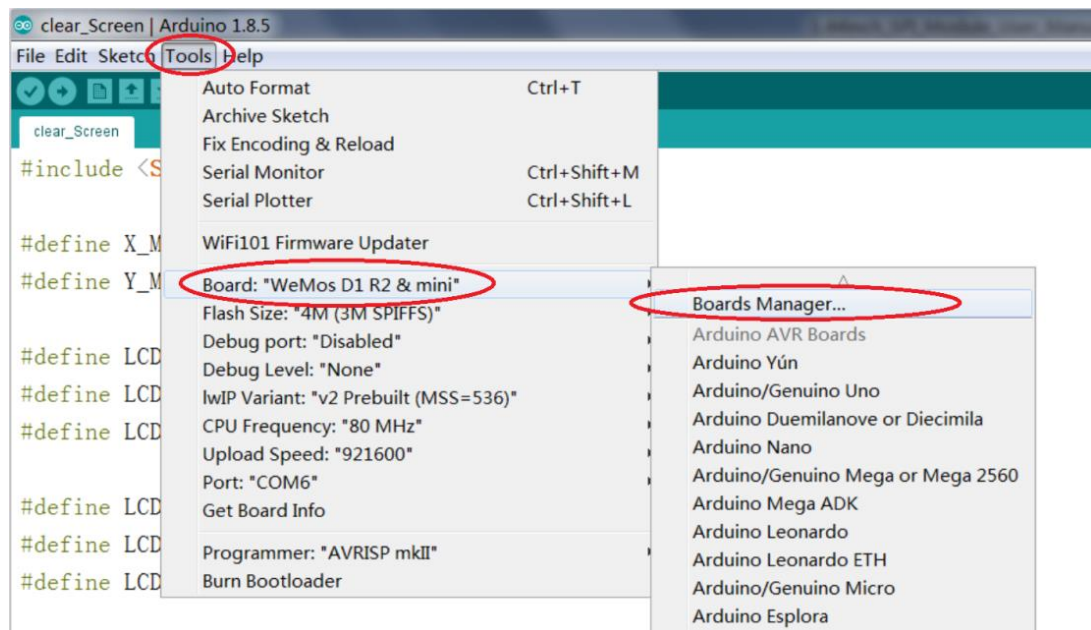
- C. enter the following in the Additional Boards Manager URLs of the Preferences interface:

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

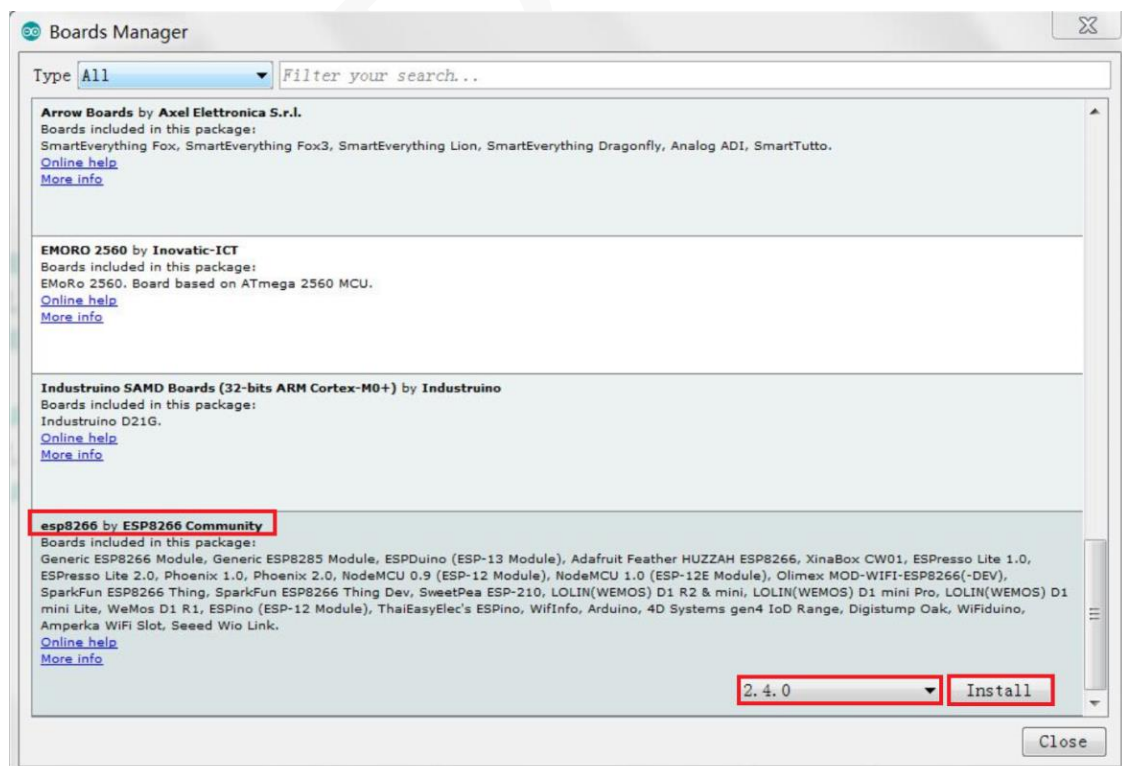
click OK to quit, As shown in the following figure:



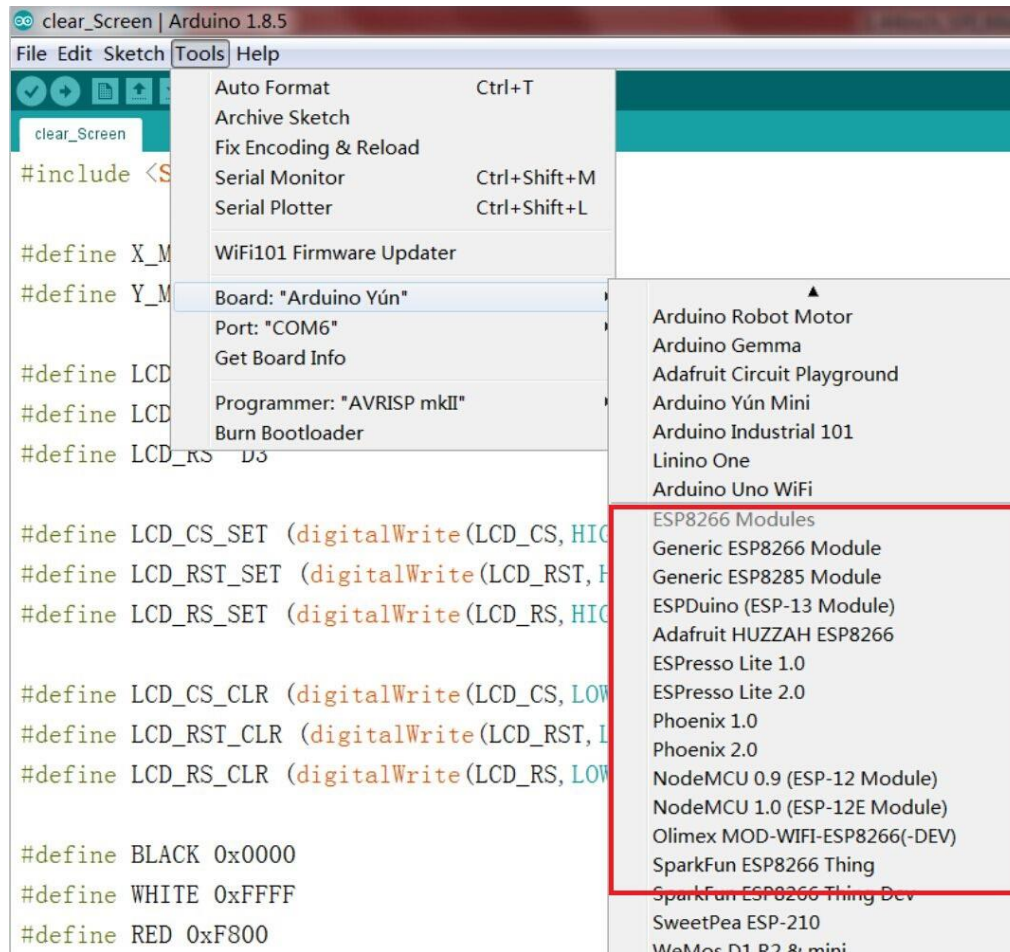
D. click Tools->Board:xxx->Boards Manager... to install Hardware package, As shown in the following figure:



E. select ESP8266, then select version (this is 2.4.0), click Install button to install ESP8266 community (Download from the official website, it will take some time, please wait patiently), As shown in the following figure:

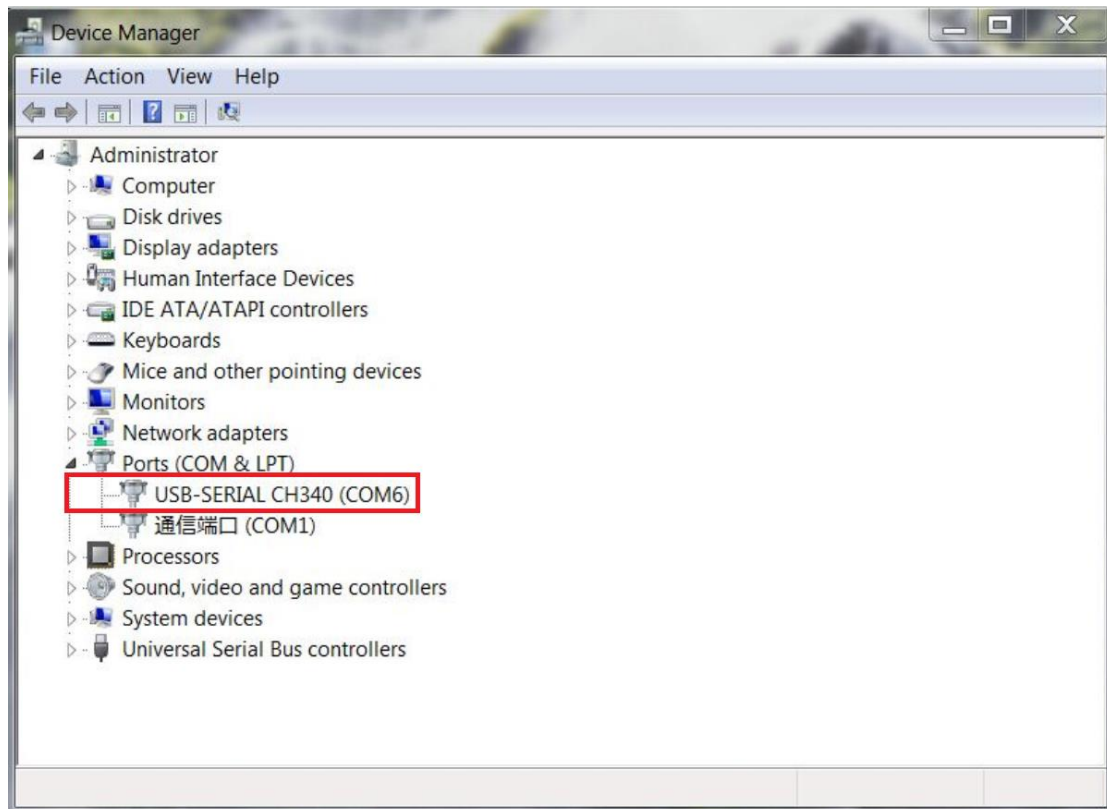


F. After successful installation, the corresponding development board model can be found in IDE, As shown in the following figure:

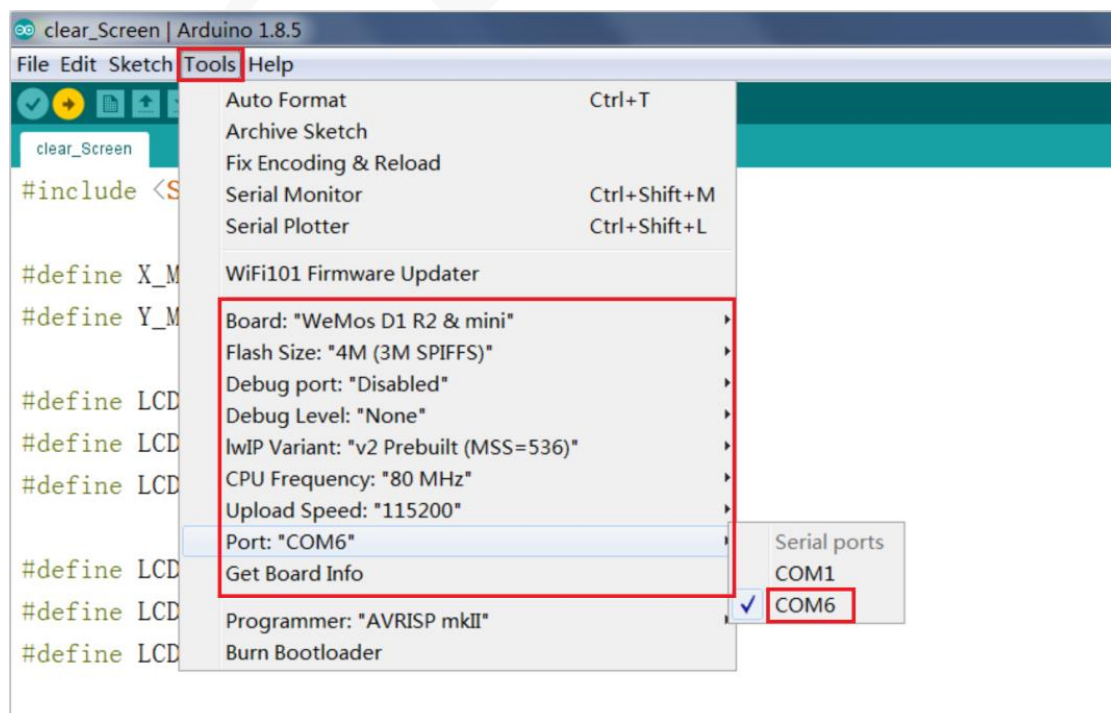


3. Arduino IDE configure

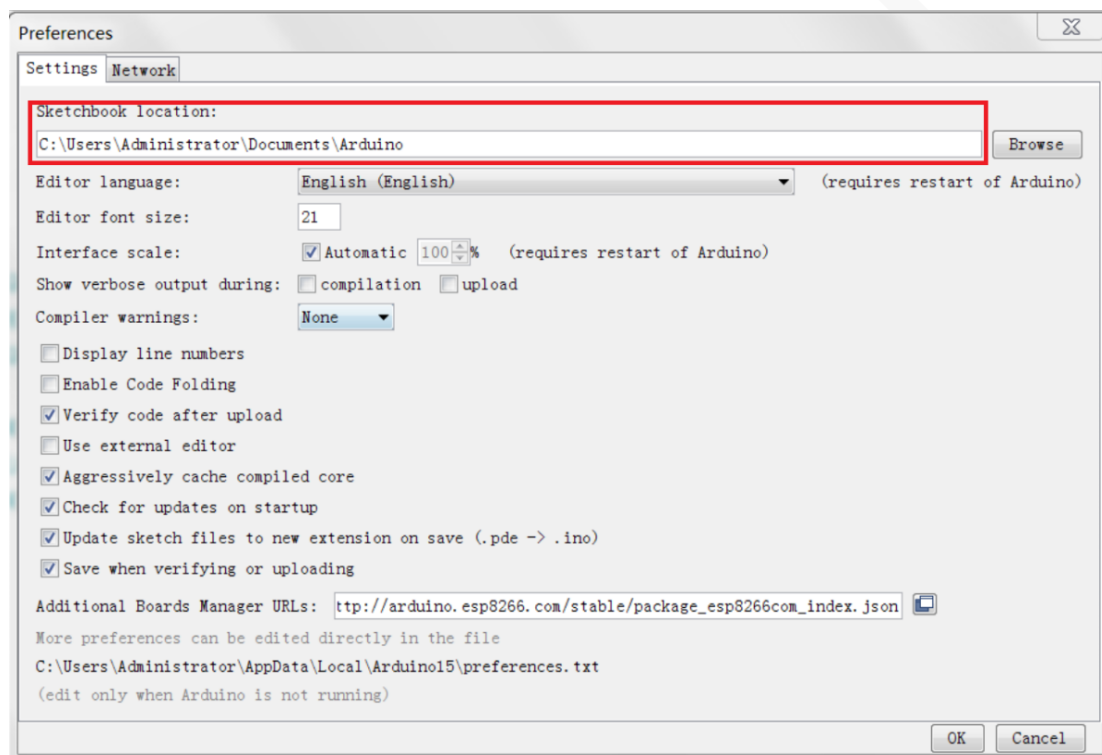
A. First install USB to Serial Port driver (CH340G driver) on your computer, The installation will be prompted automatically when the development board is connected, After successful installation, the associated com number can be found in device Manager, As shown in the following figure:



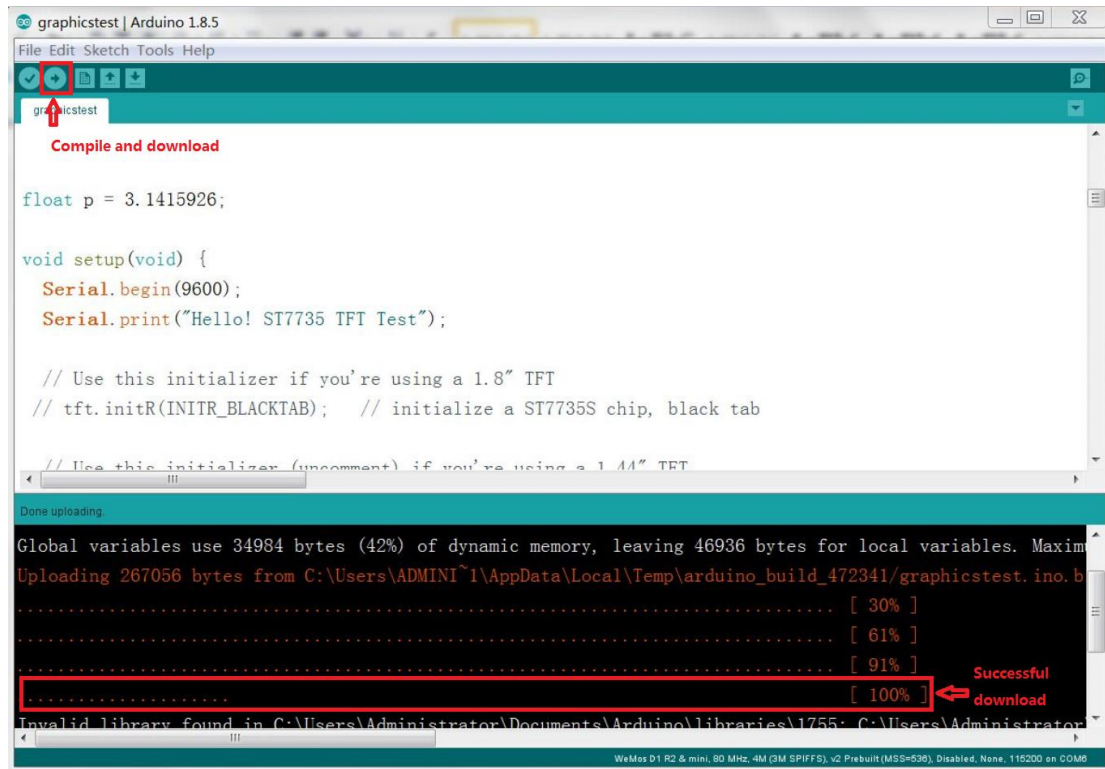
- B. Open Arduino IDE, click Tools, Set as shown below (As long as the driver is installed successfully, the Port will be automatically recognized, Select a com that is consistent with the device manager display, The larger the Upload Speed, the faster the download)



- C. Now that the Arduino IDE configuration is complete, you can compile and download the program.
4. Download and run the test program
- A. Copy the "LCDWIKI_SPI" and "LCDWIKI_GUI" folders in the "1-Demo\Arduino_ESP8266_Demo\ Install libraries" directory to the Arduino Sketchbook location\ libraries directory, The Arduino Sketchbook location path can be viewed by clicking File- > Preferences, As shown in the following figure:



- B. Go to the "Arduino_ESP8266_Demo\ Examples" directory, select any test program, click compile and download, when prompted by "100%", the download is successful, As shown in the following figure:



- C. The LCD module is connected with the ESP8266 development board according to the connection instructions, and repowered. If the LCD module can be displayed normally, the program runs successfully.