

## Keystudio USB to ESP-01S Wifi Module Serial Port Shield (Black and Eco-friendly)



### 1) Description

This is an expansion board for the ESP-01S WiFi module. The shield comes with a USB to Serial port chip CH340G.

Installed the driver, push the shield's button to **Flash Boot**, and plug into computer's USB port. You can use Serial debugging tool to test the AT command.

Push the shield's button to **Download**, and plug into computer's USB port, ESP-01 module is at download mode. You can download the firmware to ESP-01 module using firmware software.

### 2) Technical Parameters

- Working voltage: DC 5V
- Working current: minimum 500mA
- Communication voltage: 3.3V
- Environmental attributes: ROHS
- Dimensions: 55mm\*18mm\*12mm
- Weight: 5.6g

### 3) Driver Installation

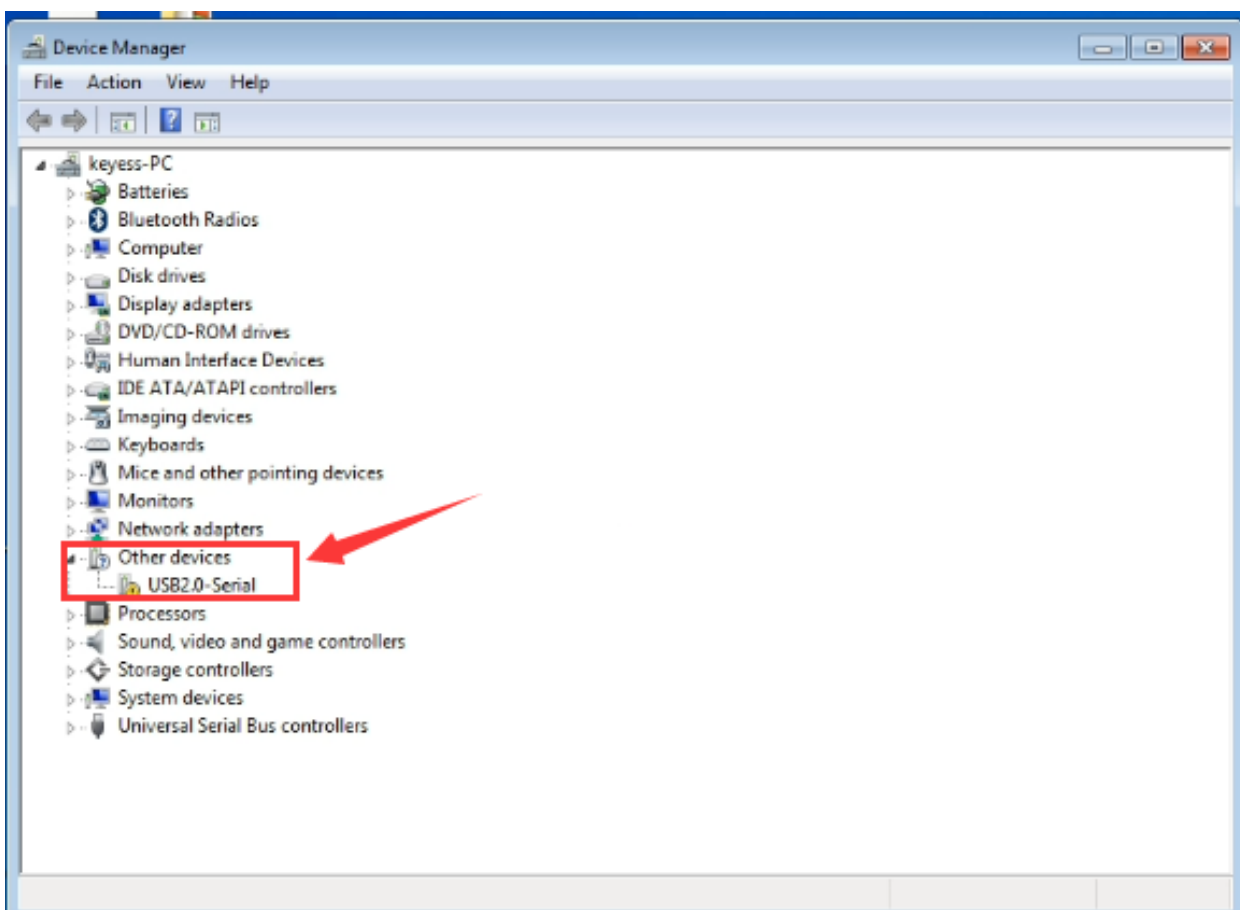
The USB to serial port chip of this control board is **CH340G**. So you need to install the chip driver. You can click the driver file here [usb\\_ch341\\_3.1.2009.06](#) to download.

<https://drive.google.com/open?id=1E-KGJpTfksqAw174uTVVSDSPknfW6r0N>

In different systems, the driver installation is similar. Here we start to install the driver on the Win7 system.

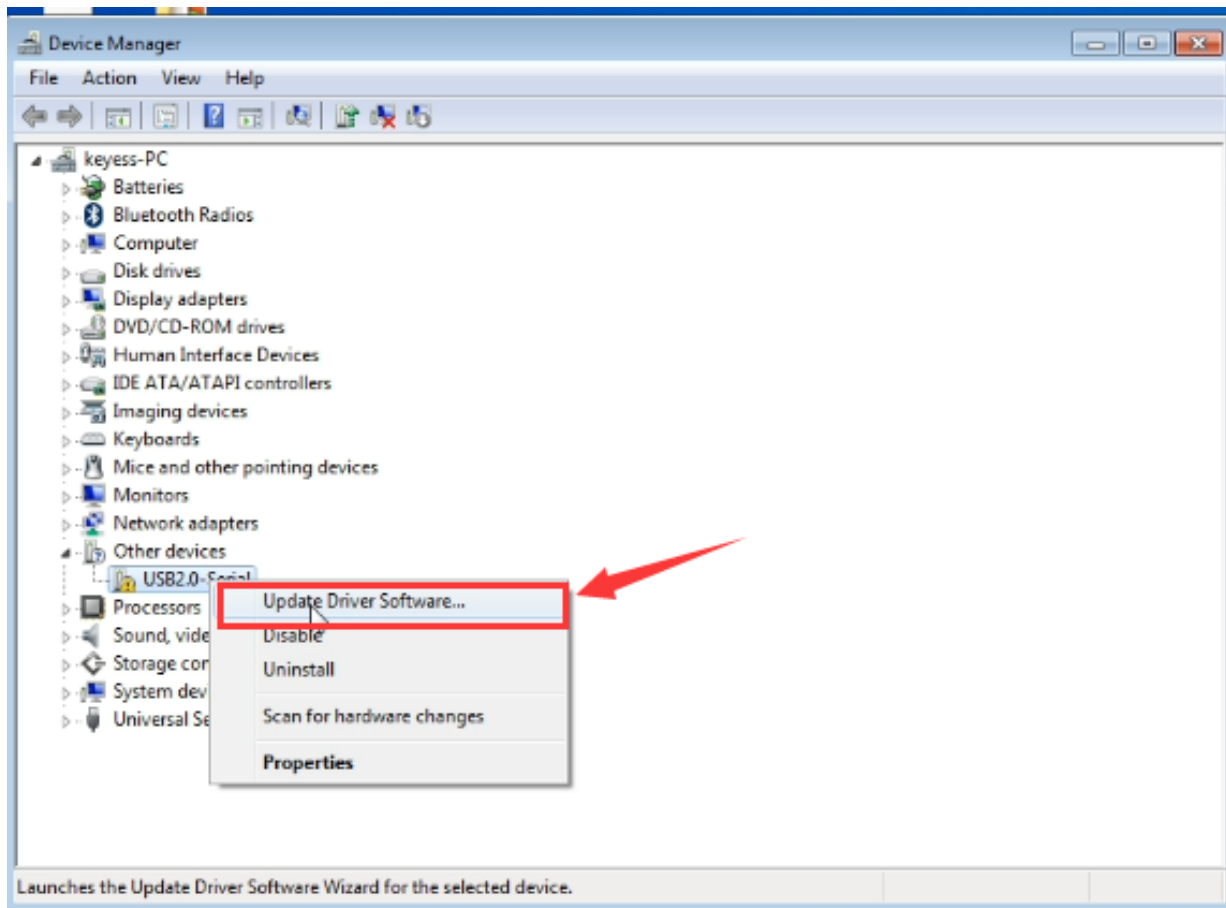
Plug one end of your USB cable into the Keystudio ESP-01S WI-FI board and the other into a USB socket on your computer.

When you connect the WI-FI board to your computer at the first time, right click your "Computer" → for "Properties" → click the "Device manager", under Other devices, you should see the "USB2.0-Serial".



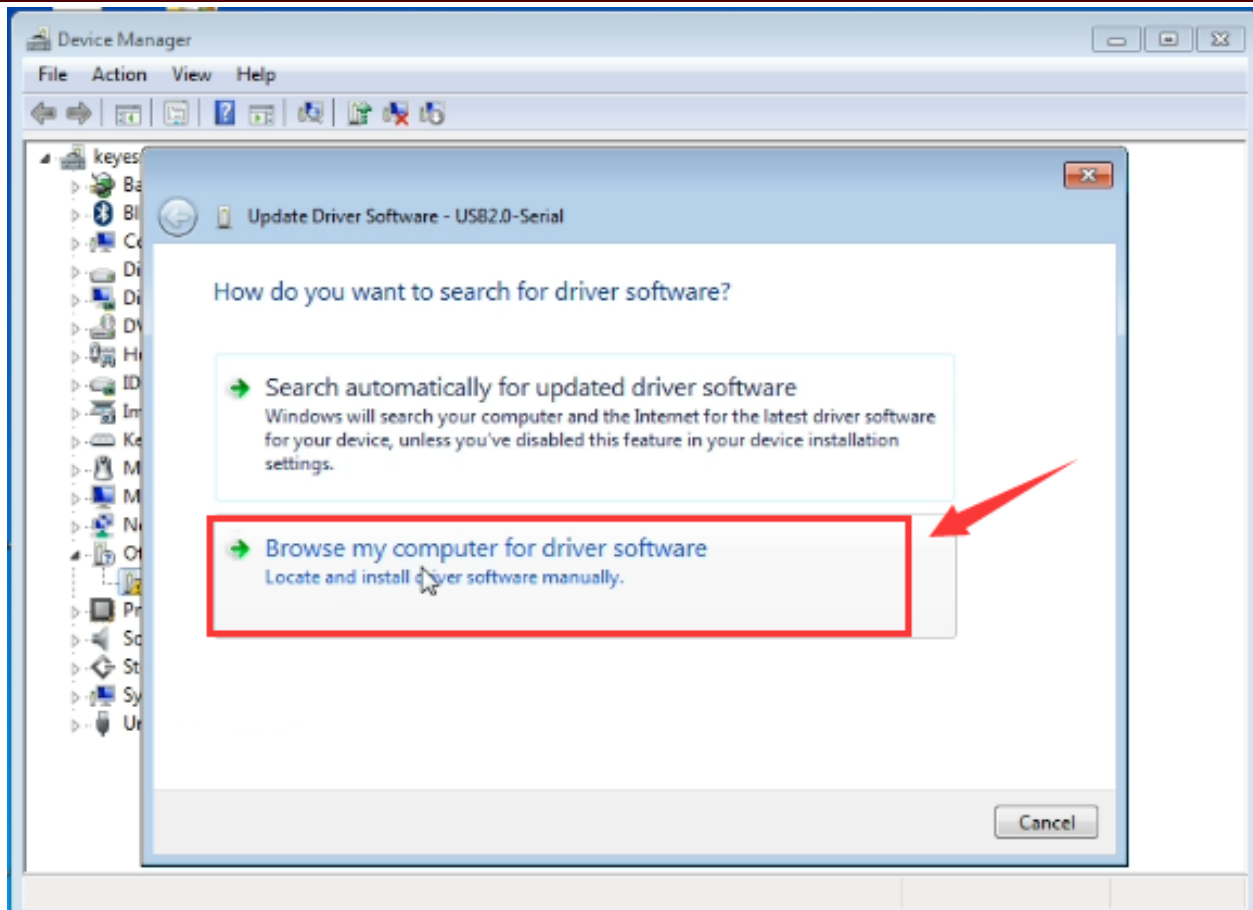
Then right-click on the "USB2.0-Serial" and select the top menu option (Update Driver

Software...) shown as the figure below.

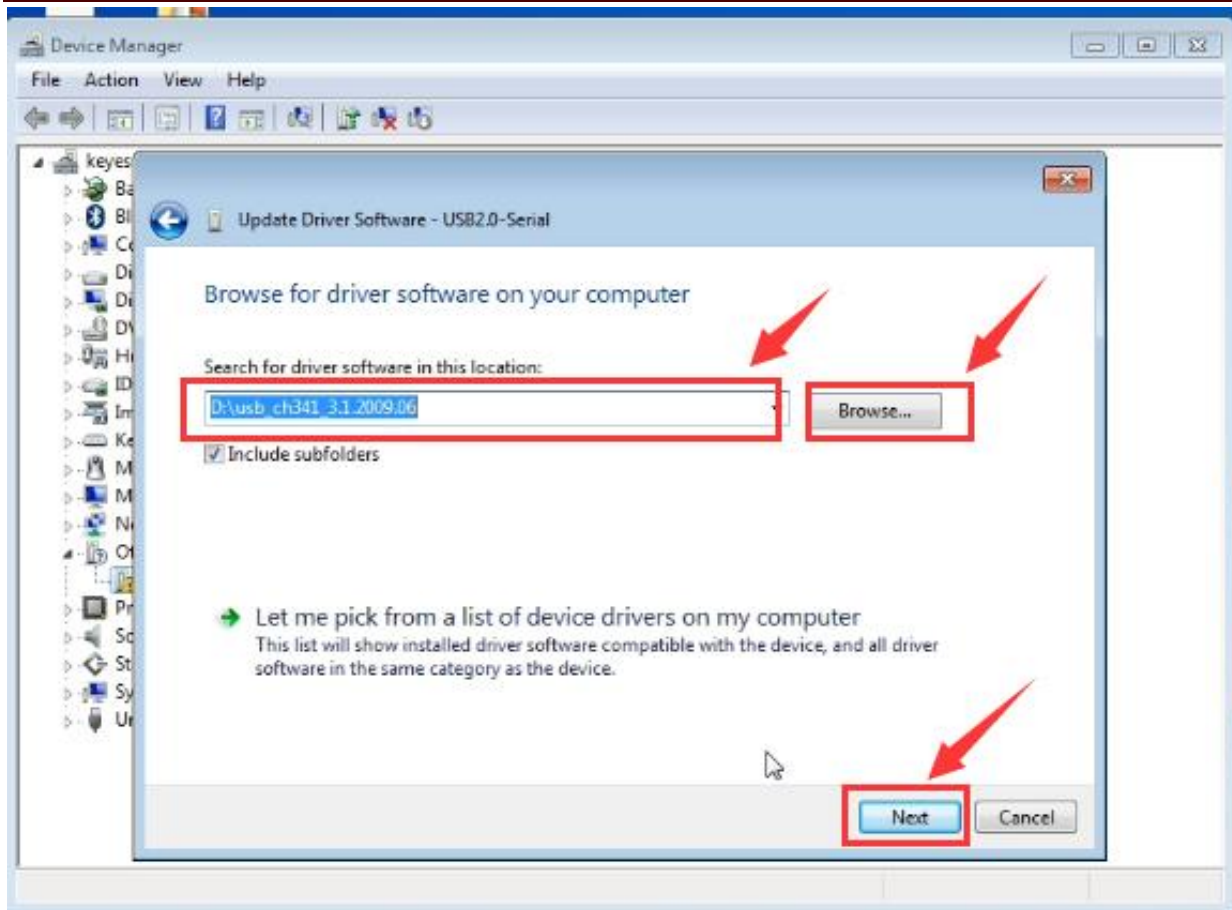


Then it will be prompted to either "Search Automatically for updated driver software" or "Browse my computer for driver software". Shown as below.

In this page, select "Browse my computer for driver software".

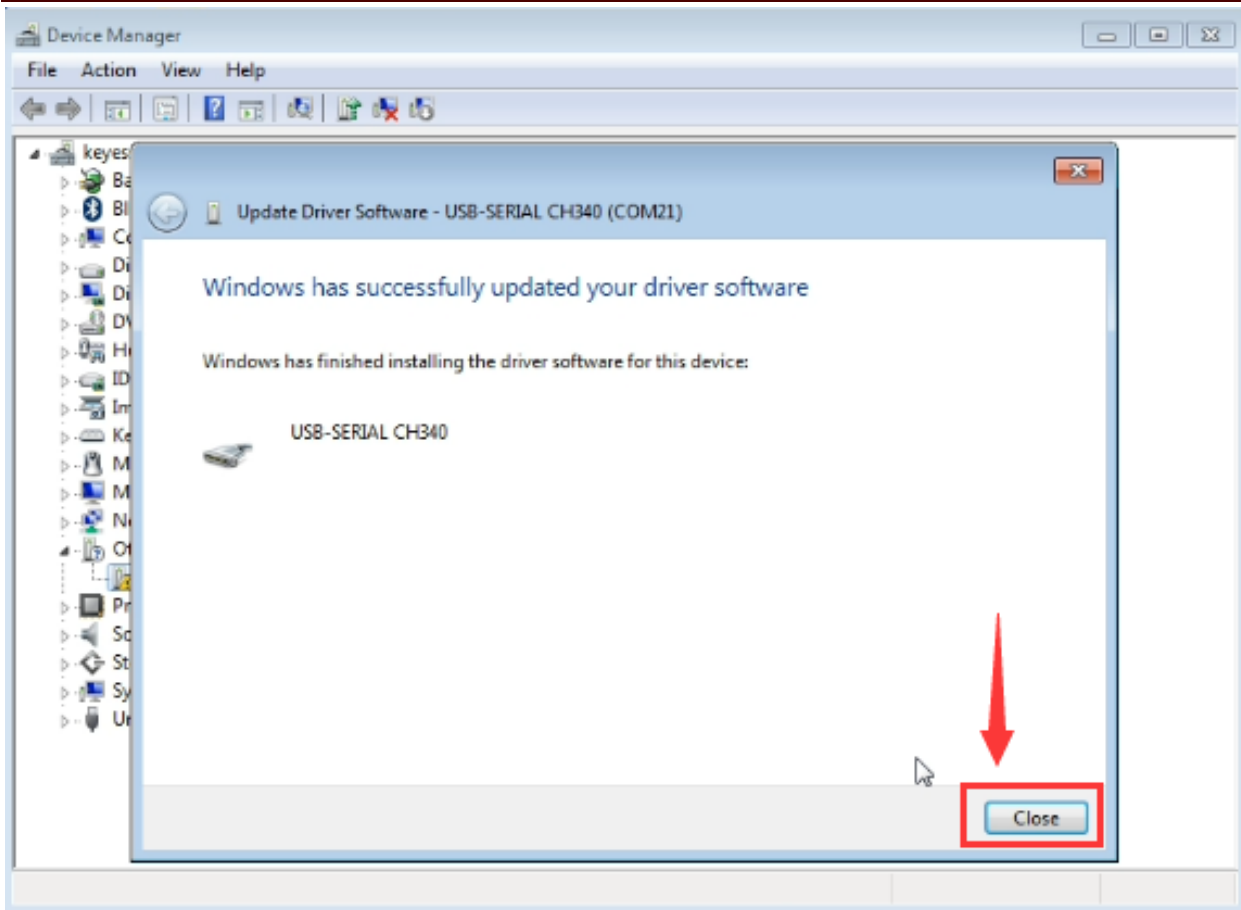


After that, select the option to browse and navigate to the "drivers" folder of usb-ch341 installation.

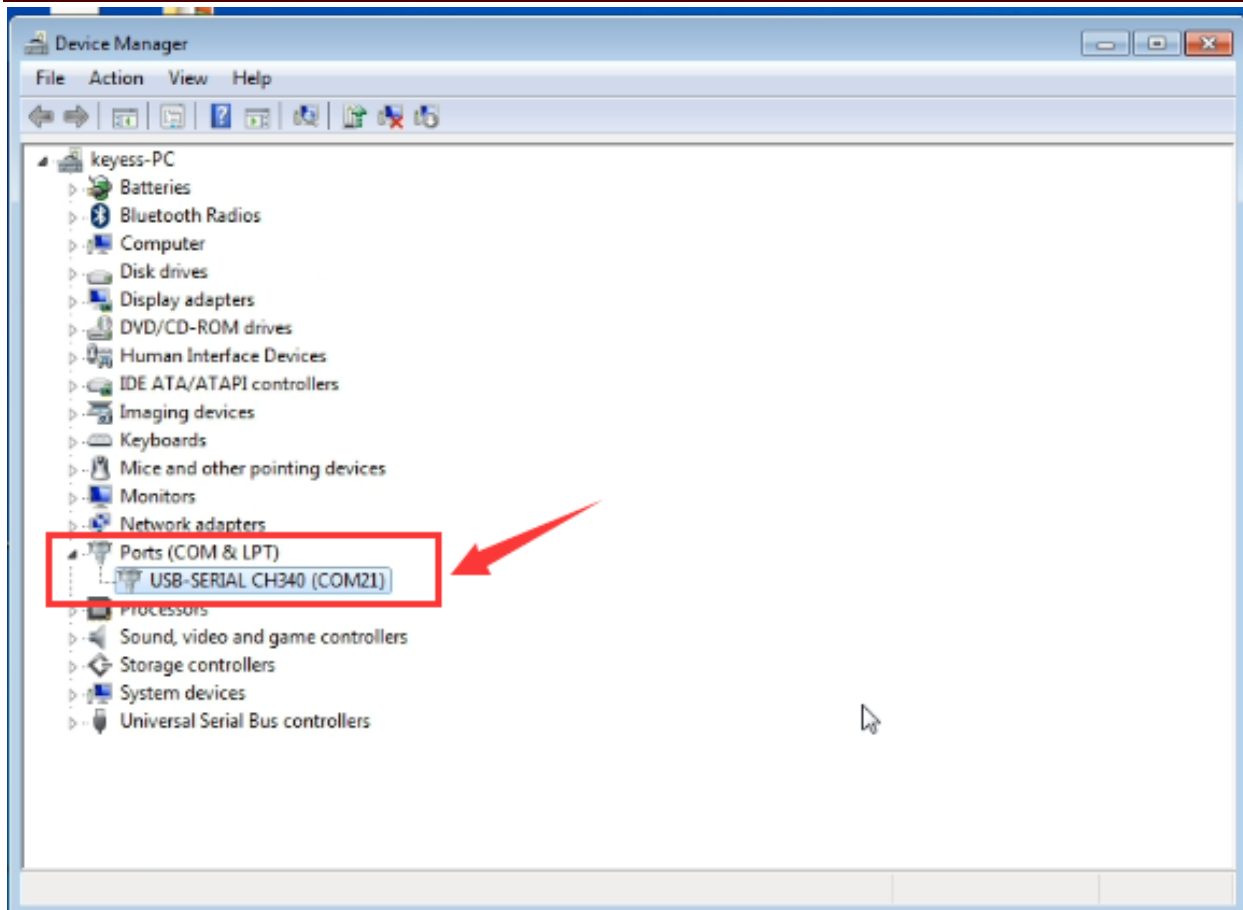


Once the software has been installed, you will get a confirmation message.

Installation completed, click "Close".



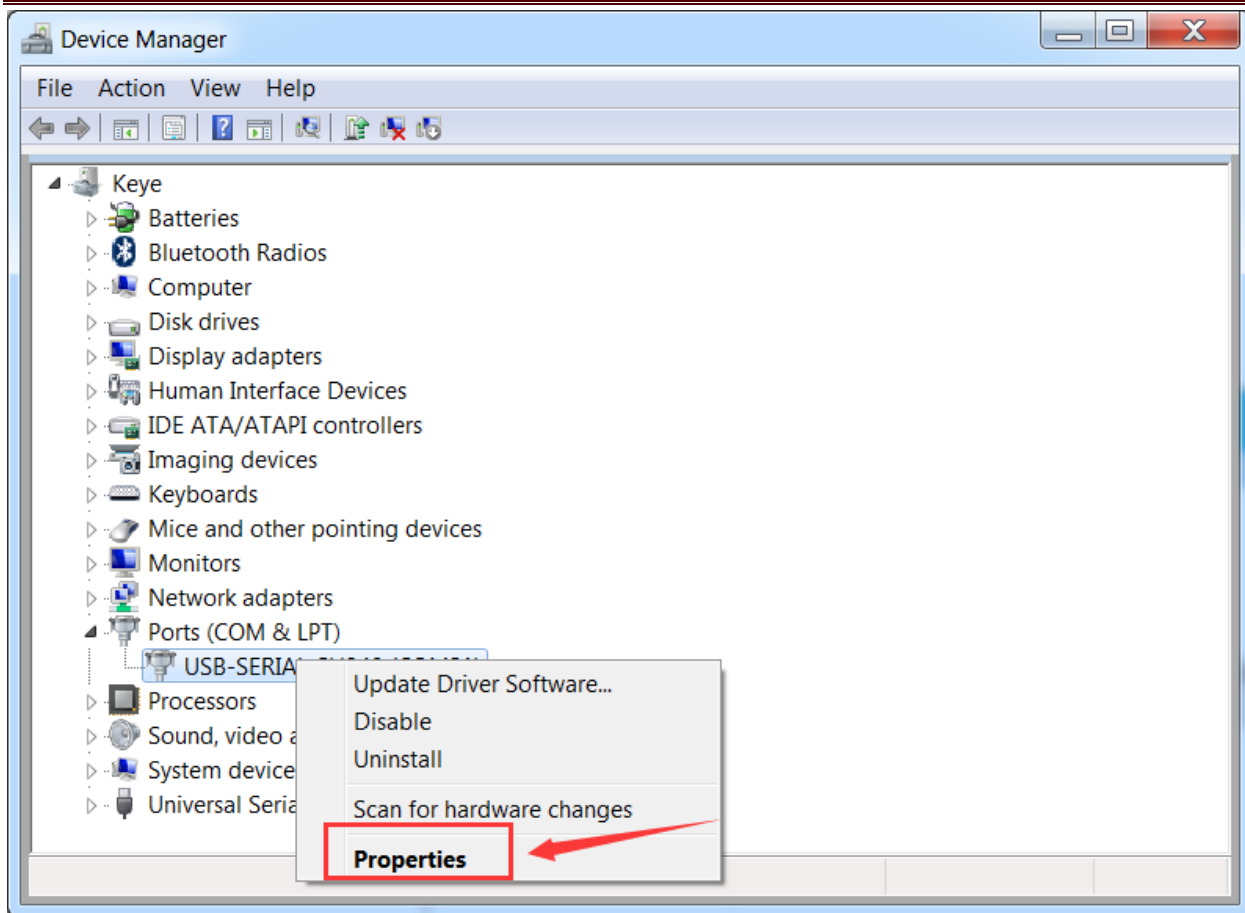
Finally, the driver is installed well. You can right click "Computer" —>"Properties"—>"Device manager", check out the CH340 device as the figure shown below.



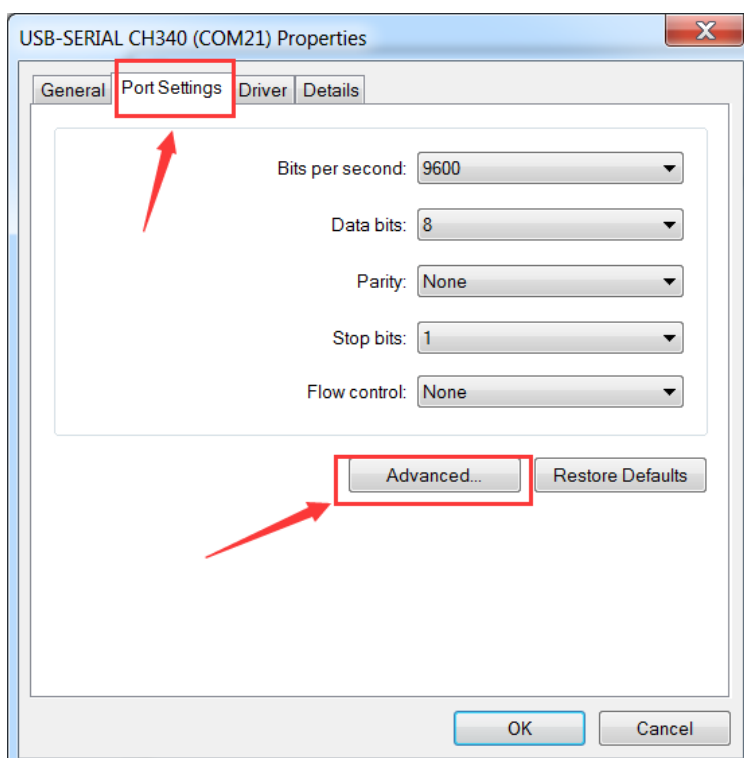
Here you can check out the Port COM21.

If you want to modify the COM Port. Follow the methods below.

Right click the **USB-SERIAL CH340 (COM21)**, then select **Properties**.



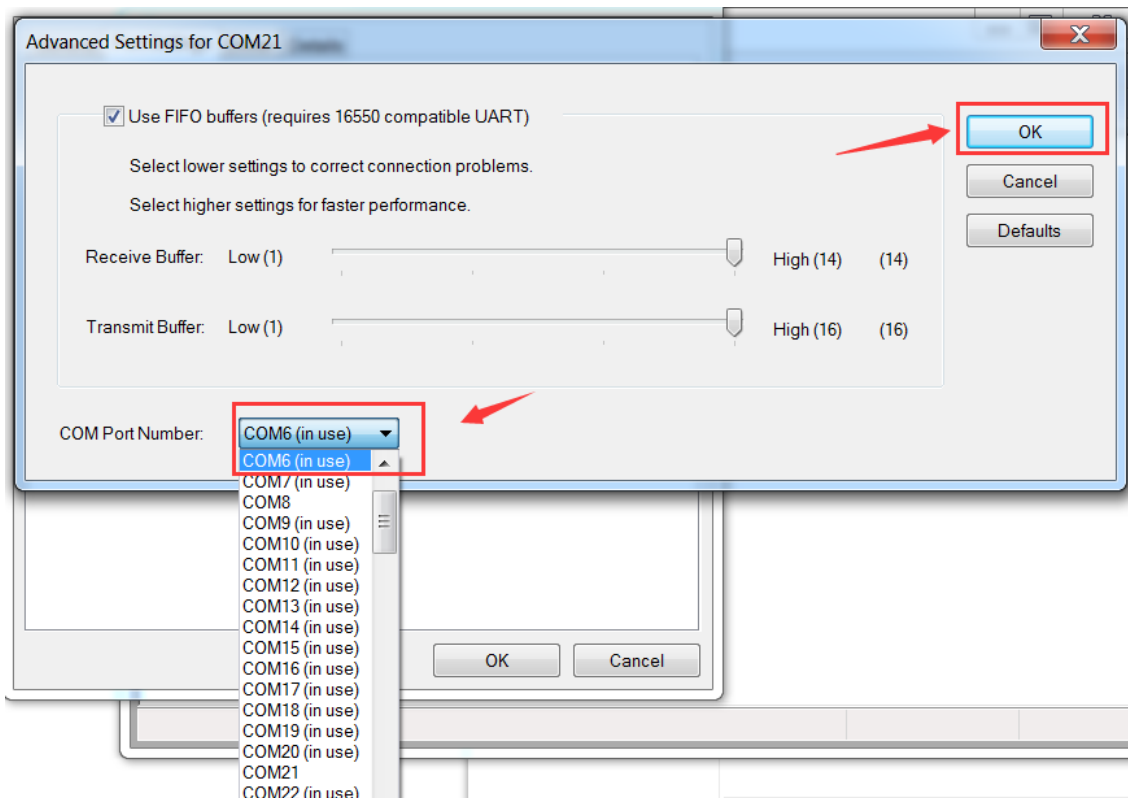
Pop up the following window, click **Port Settings** and **Advanced**.



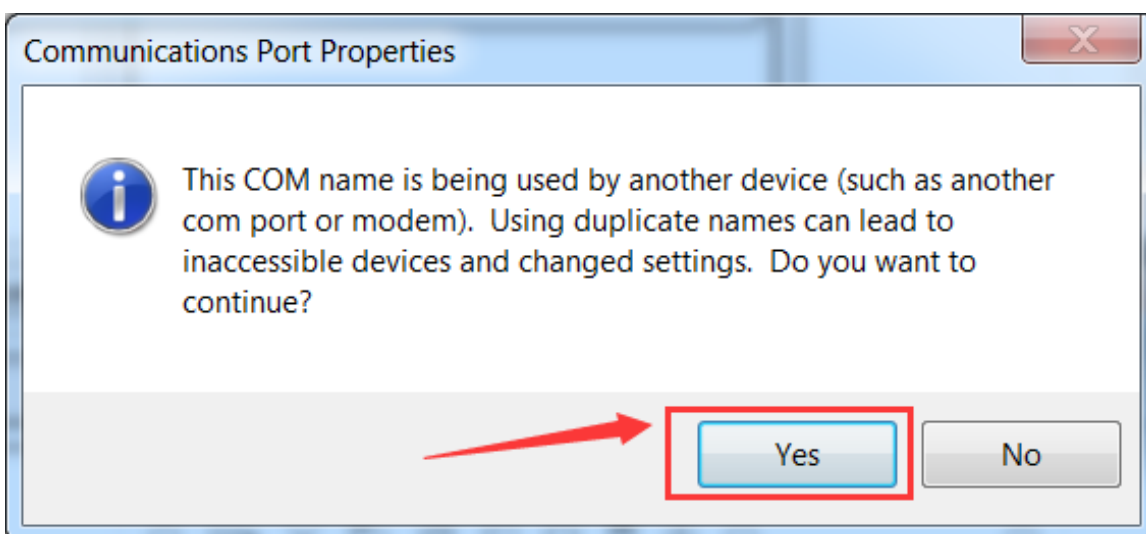


Then you can choose any COM ports as you like.

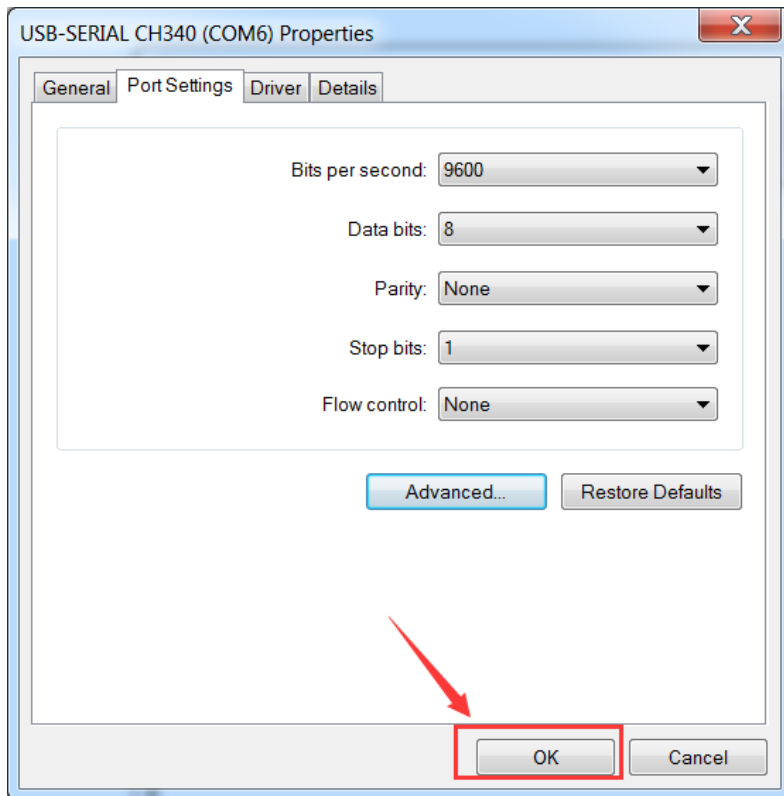
Here we select COM6, and click OK.



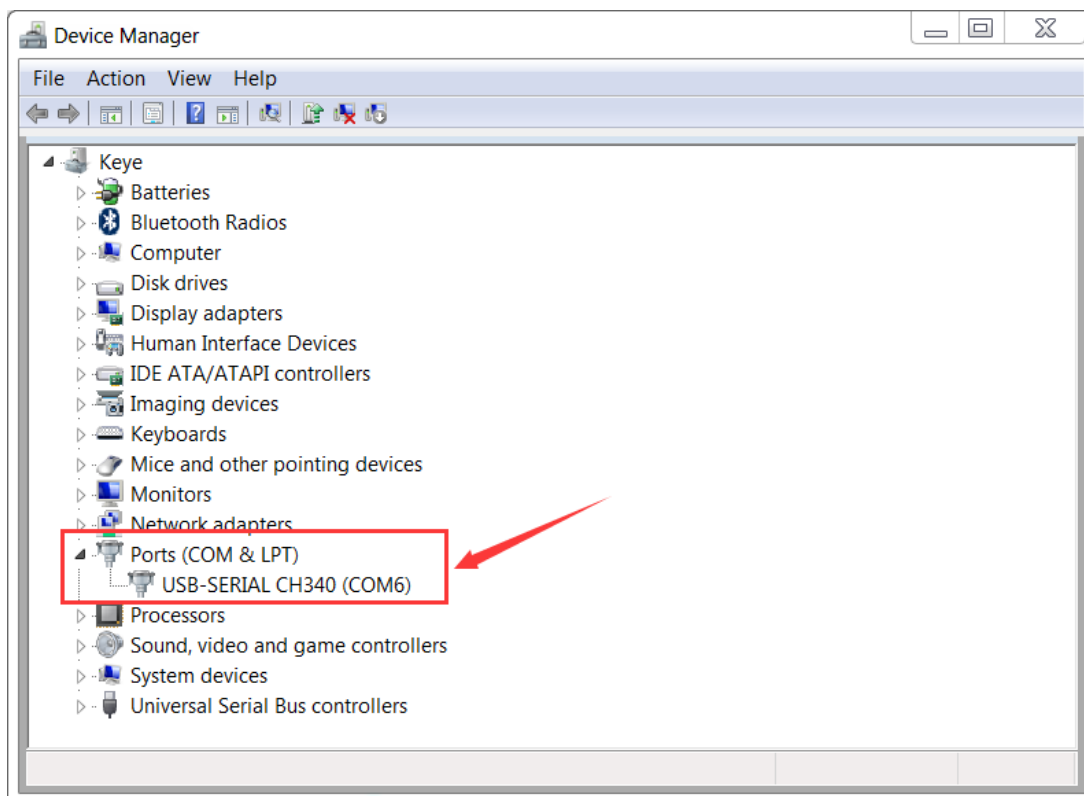
It will pop up the prompt window. Click **Yes**.



Continue to click **OK**.



Now, set well the COM6. Shown below.



## 4) Use Method

### 1. AT Command Settings

When setting the AT command, you need to use an [ESP8266 WIFI module](#).

Plug the ESP8266 WIFI onto the shield, and then connect them to your computer's USB port using a mini USB cable. Then push the shield's button to **Flash Boot** end.



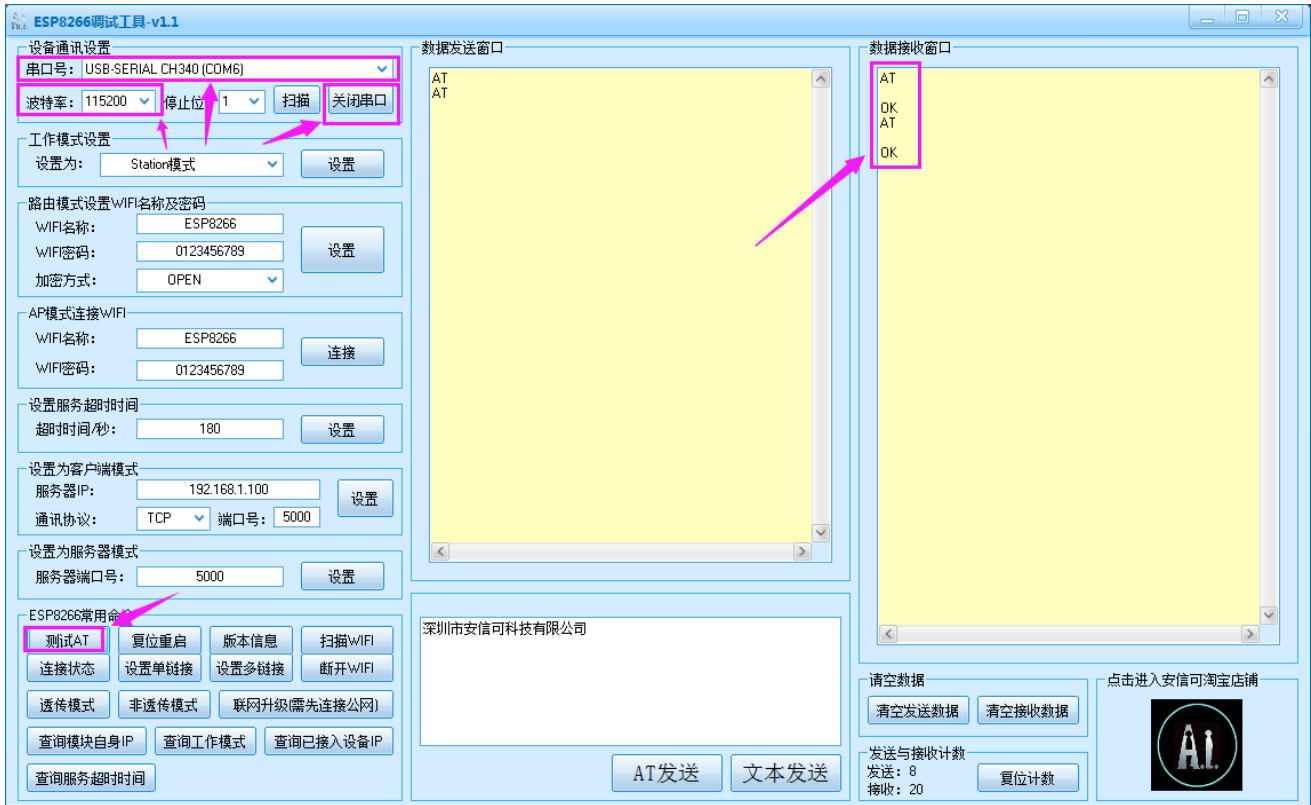
Connected successfully, open the [ESP8266 debugging tool](#), set the baud rate to 115200, click to open the Serial Port, and click Test the AT.

You should see the data received window will print out **AT OK**.

To set other AT commands, the method is similar.

You can download the ESP8266 debugging tool from the link below:

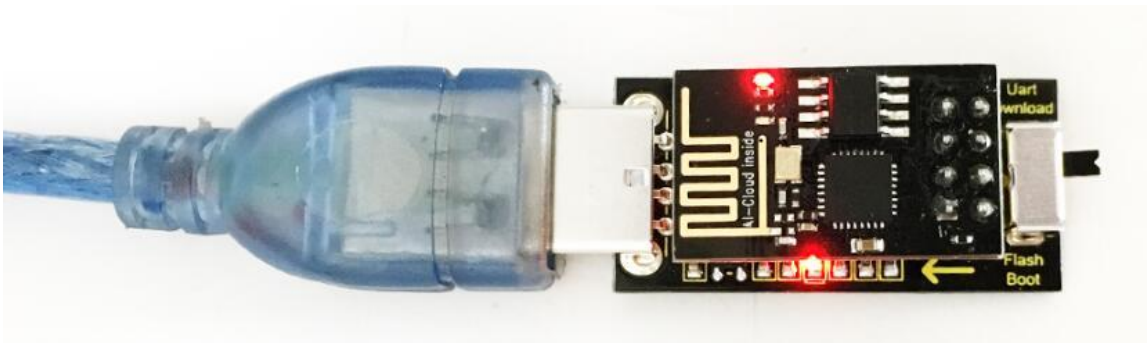
<https://drive.google.com/open?id=1TS56giNcC3Jd98Rg1mNyWYq13ePnZeyQ>



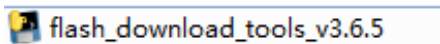
## 2. Firmware Programming

When setting the AT command, you need to use an [ESP8266 WIFI module](#).

Plug the ESP8266 WIFI onto the shield, and then connect them to your computer's USB port using a mini USB cable. Then push the shield's button to **Download** end.

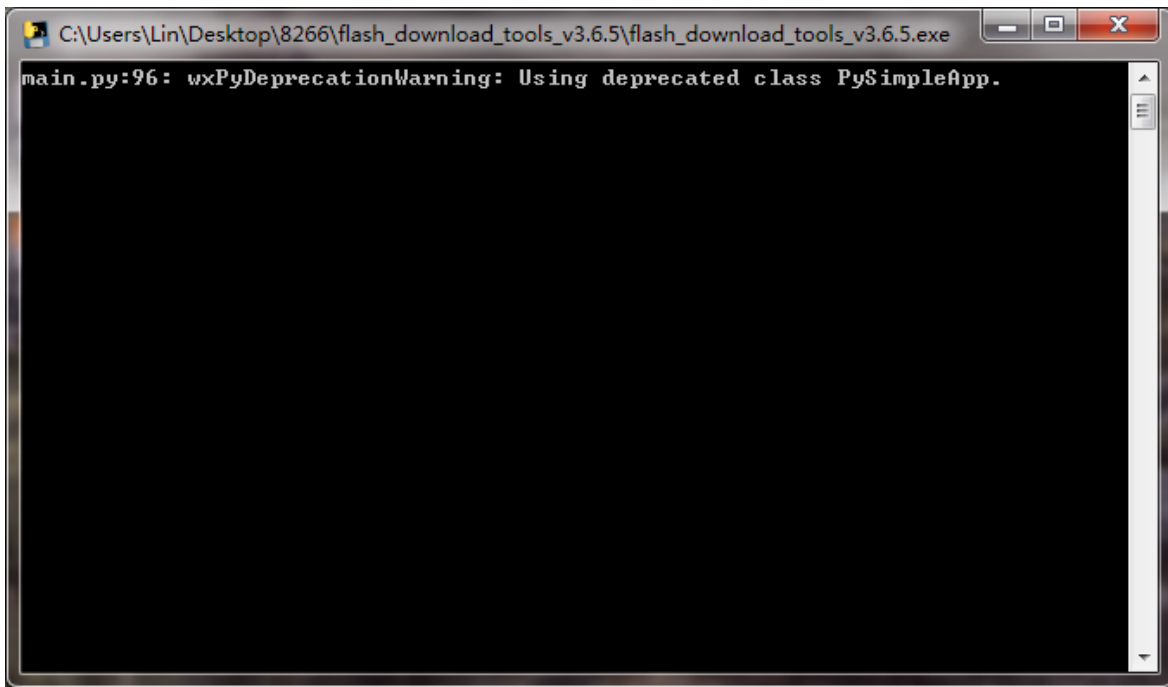


Then open [flash download tools v3.6.5 software](#), click to open.

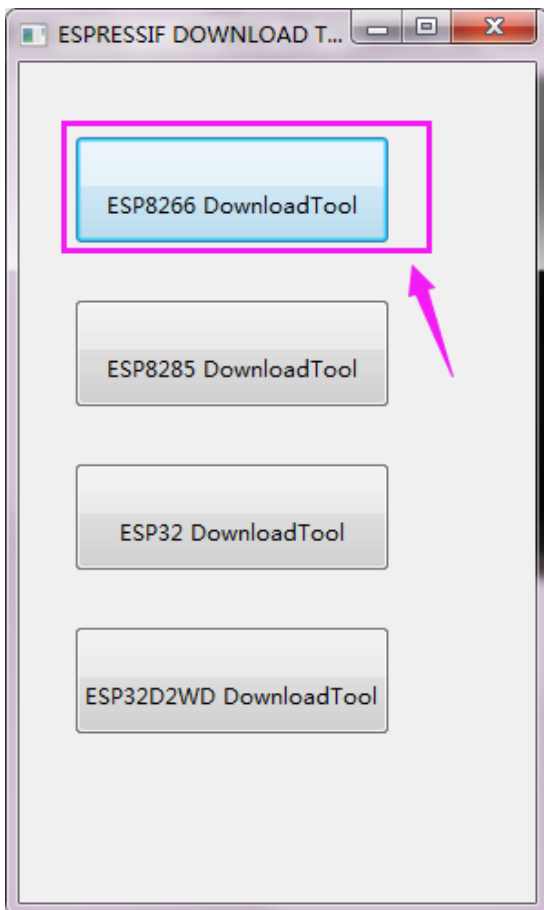


You can download the flash download tools v3.6.5 from the link:

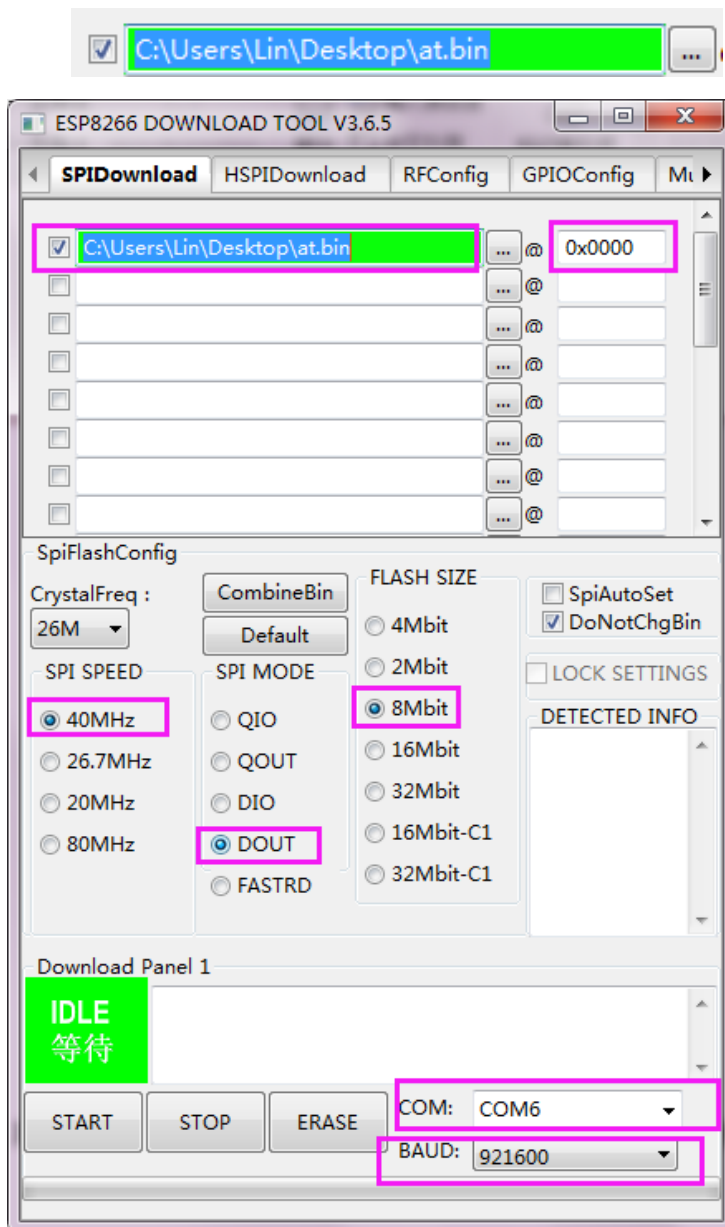
<https://drive.google.com/open?id=1JkBDPF3J11g5cMhsGxDjxbBYEHvqzJ-K>



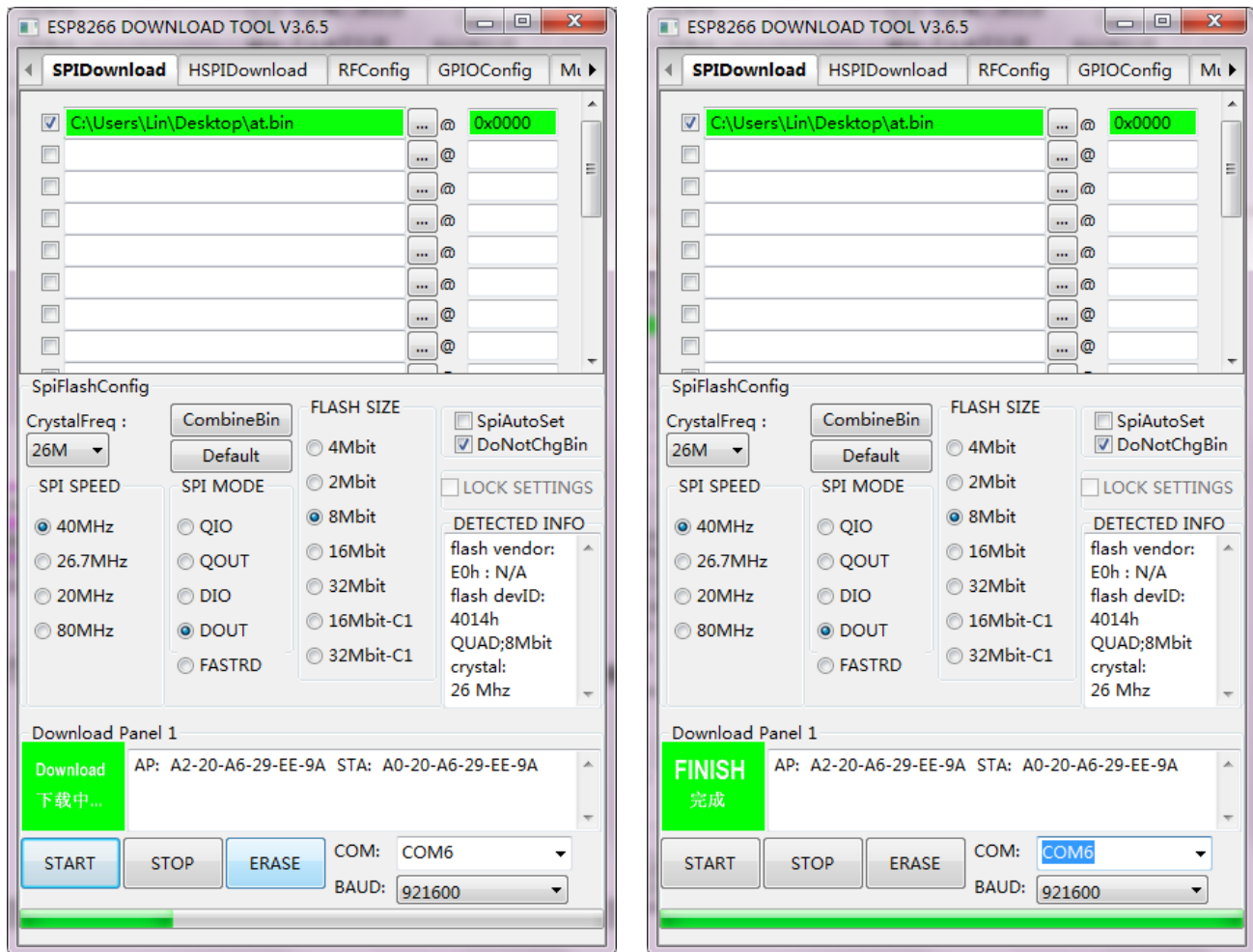
Wait for a minute, pop up the below interface, click the **ESP8266 Download Tool**.



Enter the interface to set the firmware burning. This is the address of firmware burning.

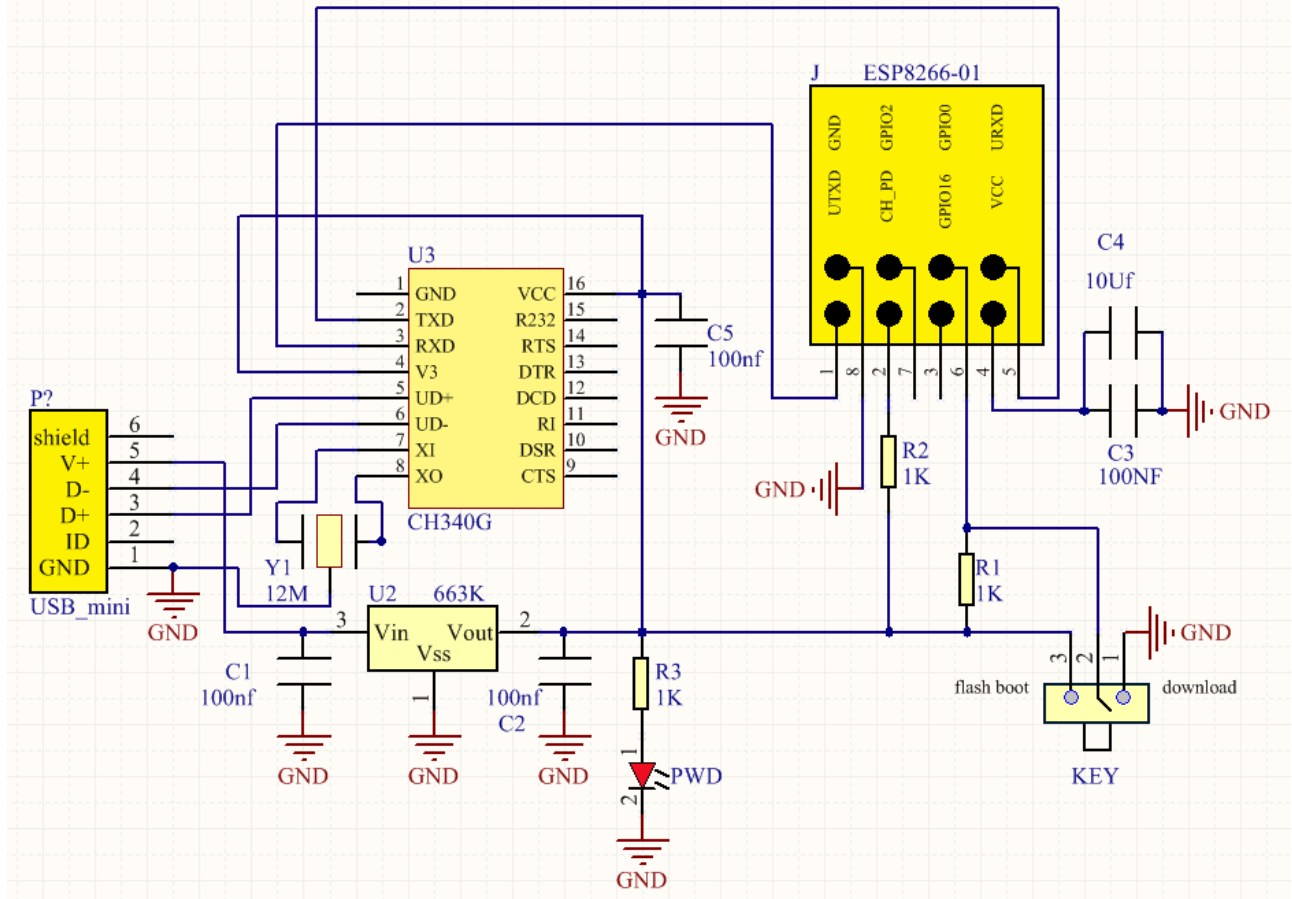


Tap **START** button, the module will enter the download mode. Shown below.



Firmware download completed, can enter the corresponding software to program the firmware.

## 5) Schematic Diagram



**6) Resources Download:**

<https://drive.google.com/open?id=1aH42tUFPPDNQI-MwqrtvIAvEwBb7RWFM>