

The tutorial for installing Arduino IDE on Windows.

I .Arduino IDE

As an open source software, Arduino IDE is developed based on Processing IDE, which is the integrated development environment officially launched by Arduino.

With Arduino IDE, you just write the program code in the IDE and then upload it to the Arduino board and the program will tell the Arduino board what it needs to do.

II .Download the Arduino IDE for Windows

1.Download Arduino IDE

①Download the Arduino IDE's website address:

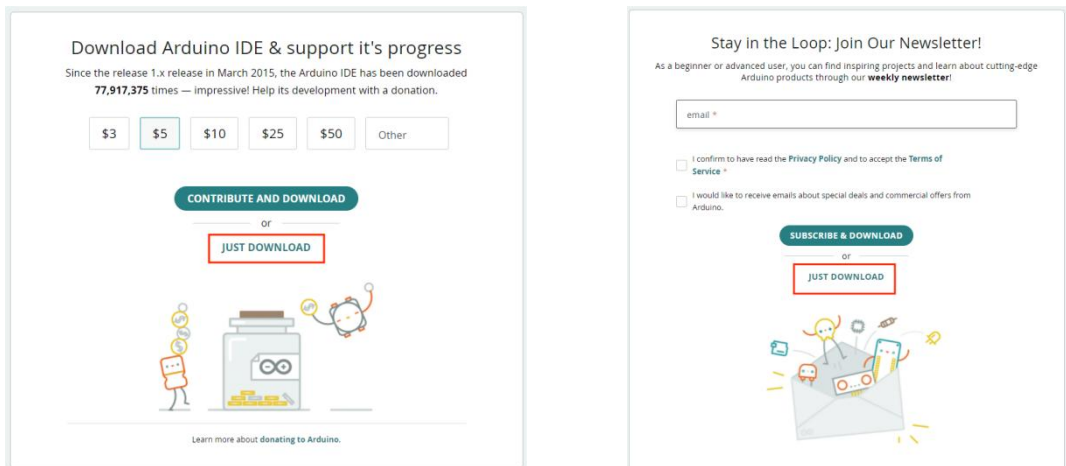
<https://www.arduino.cc/en/Main/Software>, open the url according to the following chart to select the corresponding version in the future.



The screenshot shows the Arduino IDE 2.2.1 download page. On the left, there's a section for Arduino IDE 2.2.1 with a description, a link to documentation, and a link to source code on GitHub. On the right, there's a 'DOWNLOAD OPTIONS' section with a table of download links for Windows, Linux, and macOS. The 'Windows Win 10 and newer, 64 bits' link is highlighted with a red box.

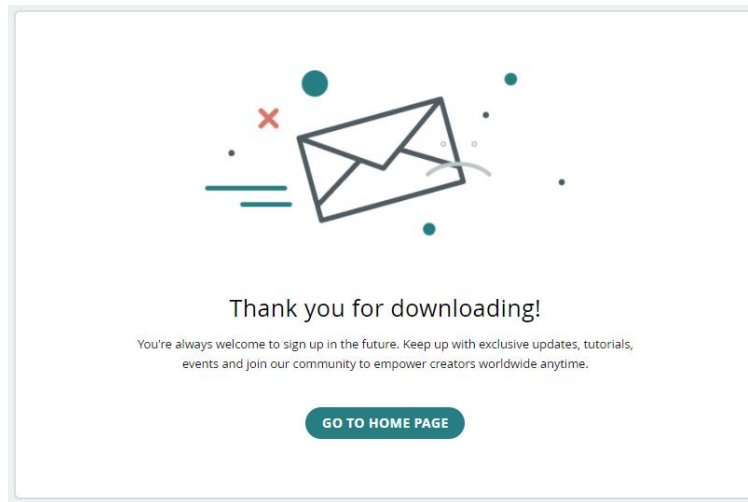
DOWNLOAD OPTIONS	
Windows	Win 10 and newer, 64 bits
Windows	MSI installer
Windows	ZIP file
Linux	AppImage 64 bits (X86-64)
Linux	ZIP file 64 bits (X86-64)
macOS	Intel, 10.14: "Mojave" or newer, 64 bits
macOS	Apple Silicon, 11: "Big Sur" or newer, 64 bits

②Select JUST DOWNLOAD.



The screenshot shows the Arduino IDE download and newsletter sign-up page. It has two main sections. The left section is titled 'Download Arduino IDE & support it's progress' and features a donation form with buttons for \$3, \$5, \$10, \$25, \$50, and 'Other'. Below the donation form is a 'CONTRIBUTE AND DOWNLOAD' button, and below that is a 'JUST DOWNLOAD' button, which is highlighted with a red box. The right section is titled 'Stay in the Loop: Join Our Newsletter!' and features a newsletter sign-up form with an email input field and checkboxes for confirming the privacy policy and accepting terms of service. Below the sign-up form is a 'SUBSCRIBE & DOWNLOAD' button, and below that is a 'JUST DOWNLOAD' button, which is also highlighted with a red box.

- ③When the following screen appears, the Arduino IDE is downloading.

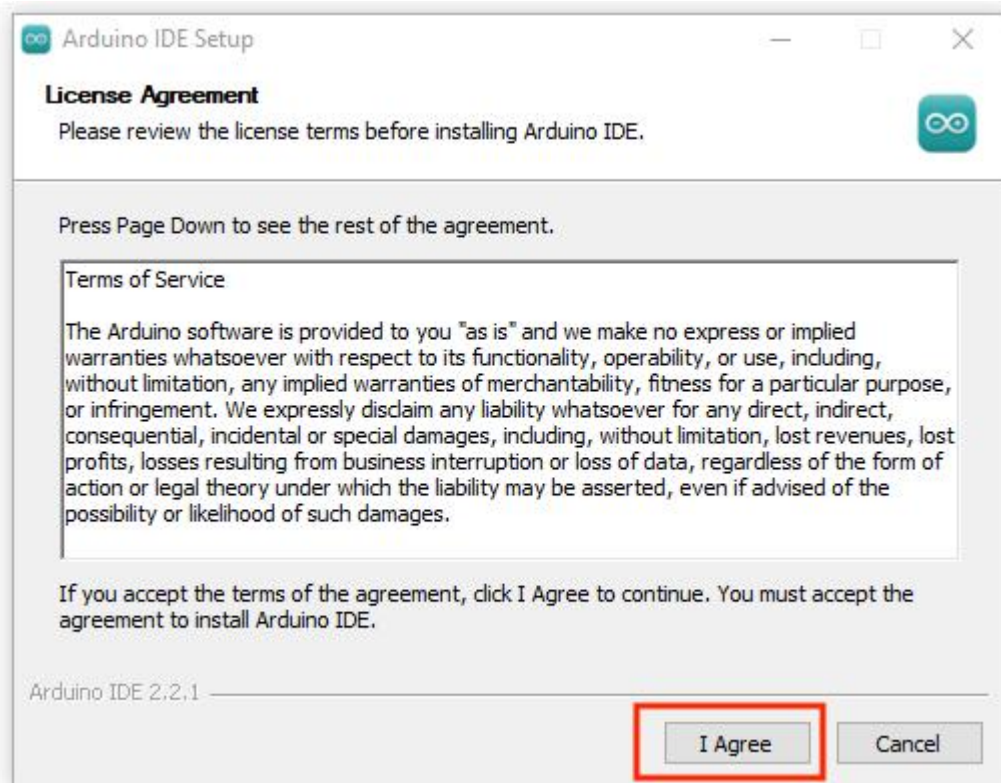


2.Install the Arduino IDE

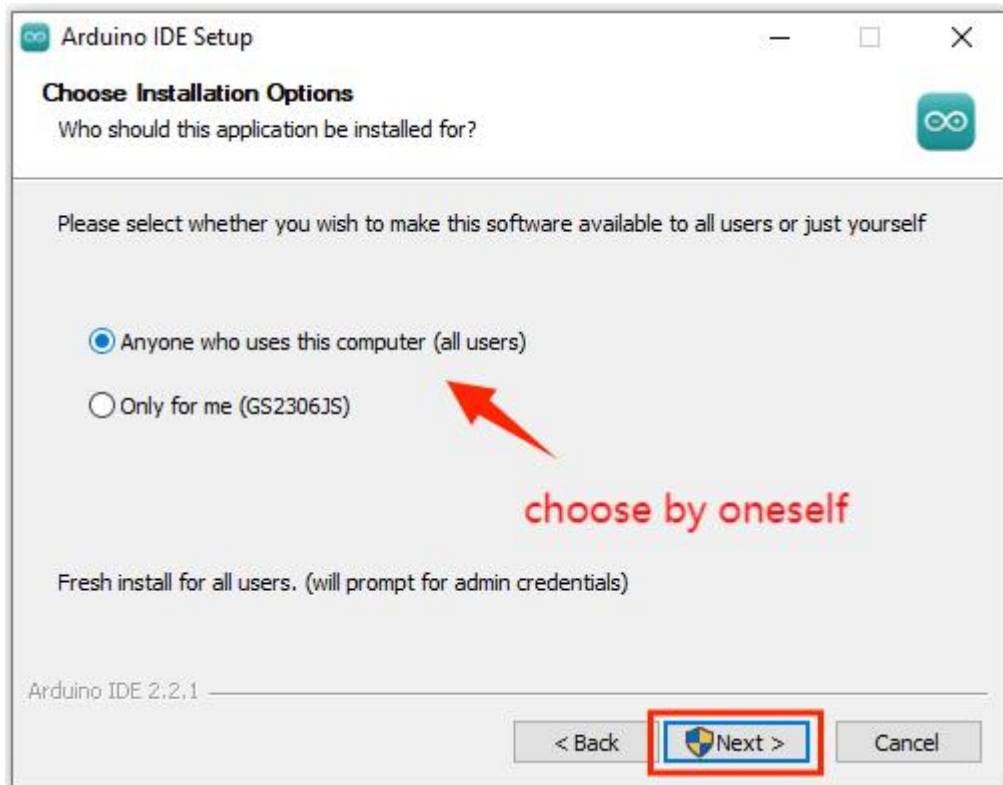
- ①When the download is complete, the icon file will appear. Click Install software.



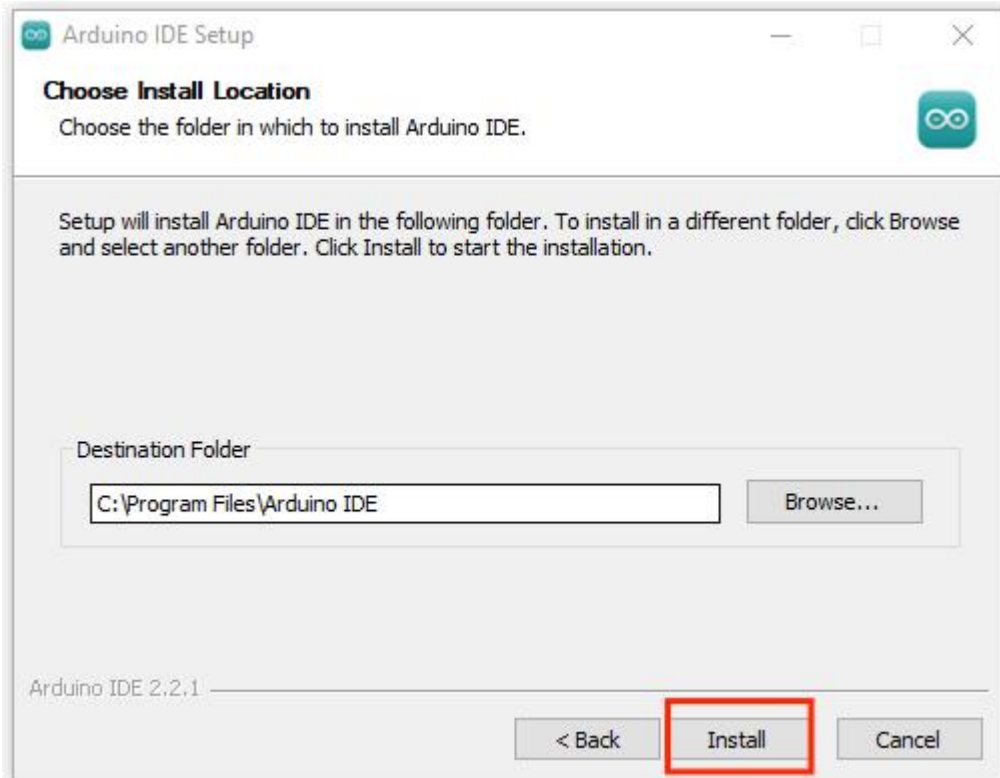
- ②After installation, the following screen appears and select "I Agree".



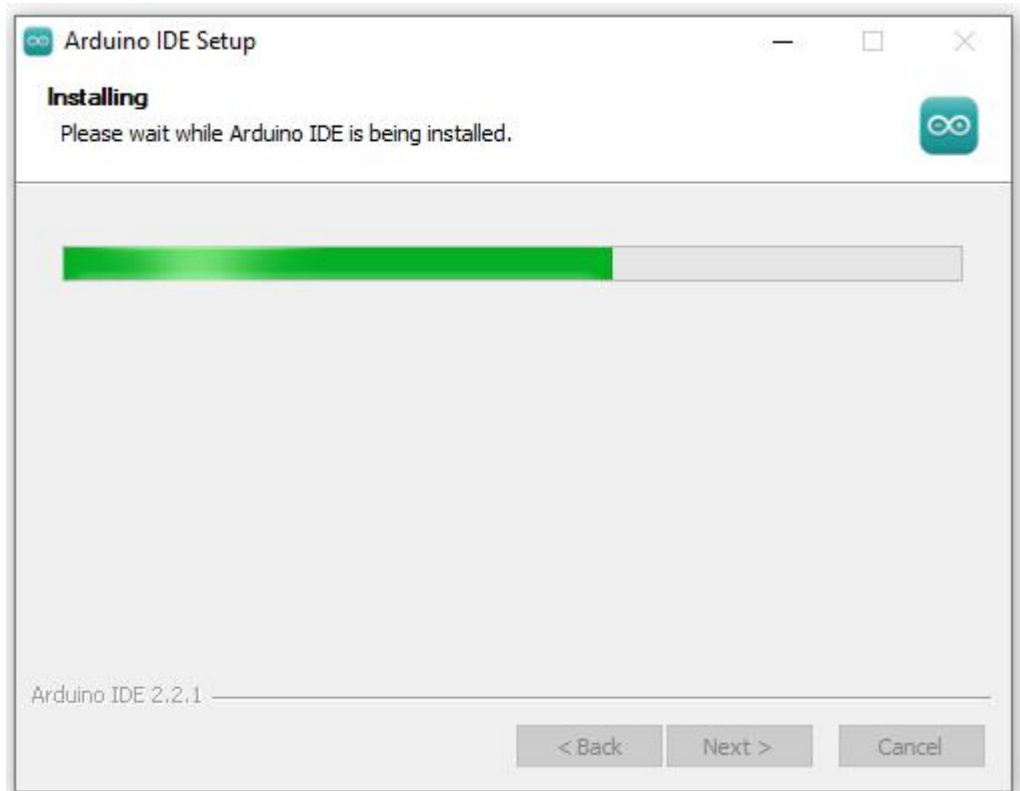
- ③After selecting "I Agree", the following screen will appear and select "Next".



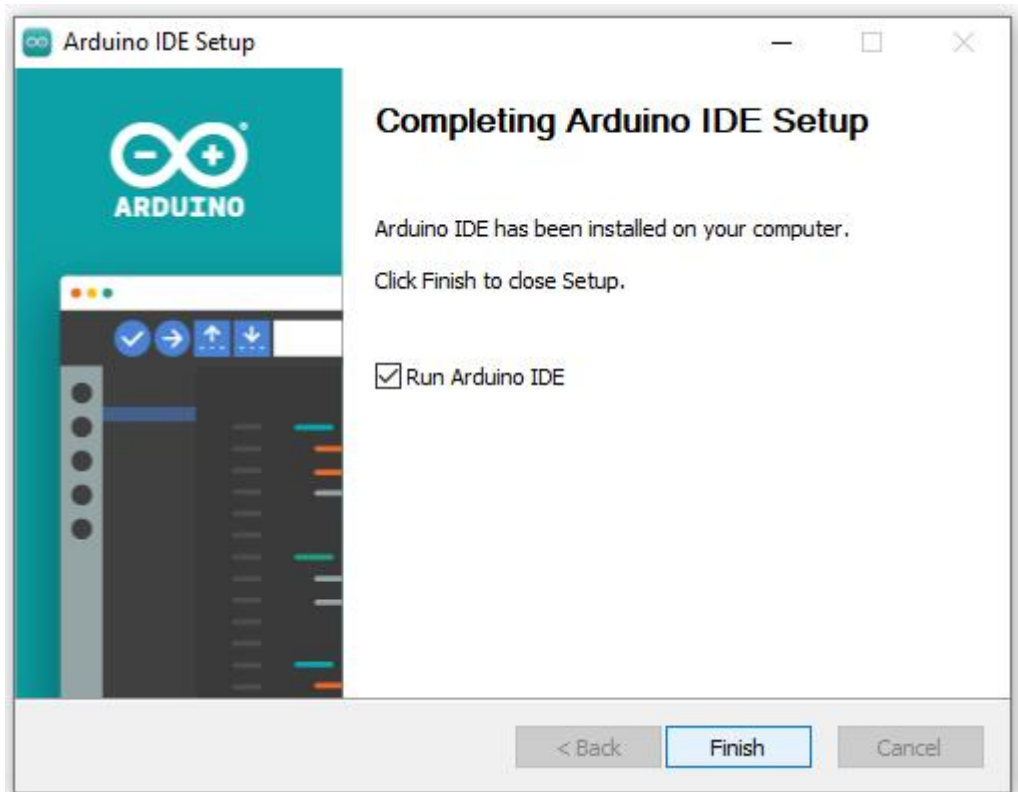
④ Select "Next" and the following screen will appear. Select "Install".



⑤ Arduino IDE software installed.



⑥ Installation is complete.

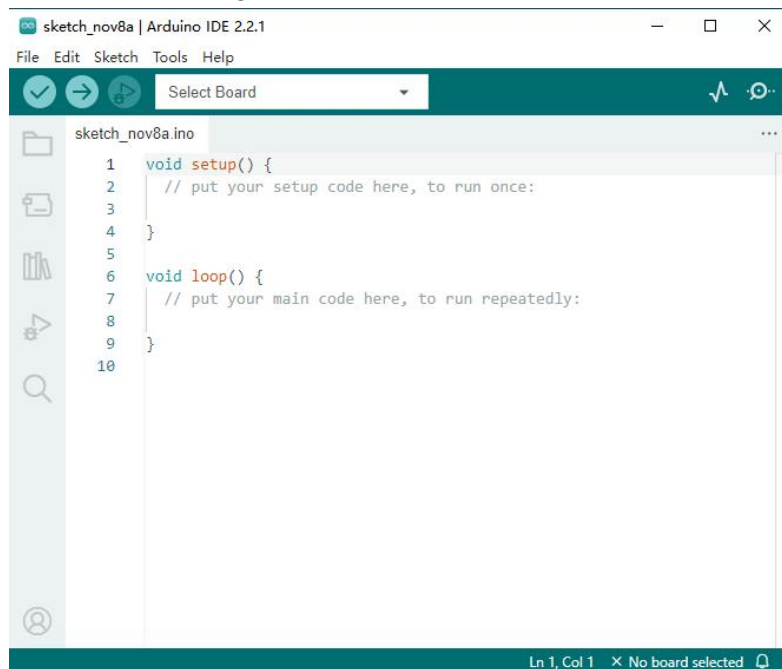


3.The Arduino IDE installation is complete

① After installation, a shortcut icon of Arduino IDE will appear on your desktop.



②When opened, the following screen will appear.



III.How to install CH340 serial port driver

Connect the main control board to your computer with a USB cable, and the driver will be installed automatically on MacOS and Windows systems. If the driver installation fails, you need to install the driver manually.

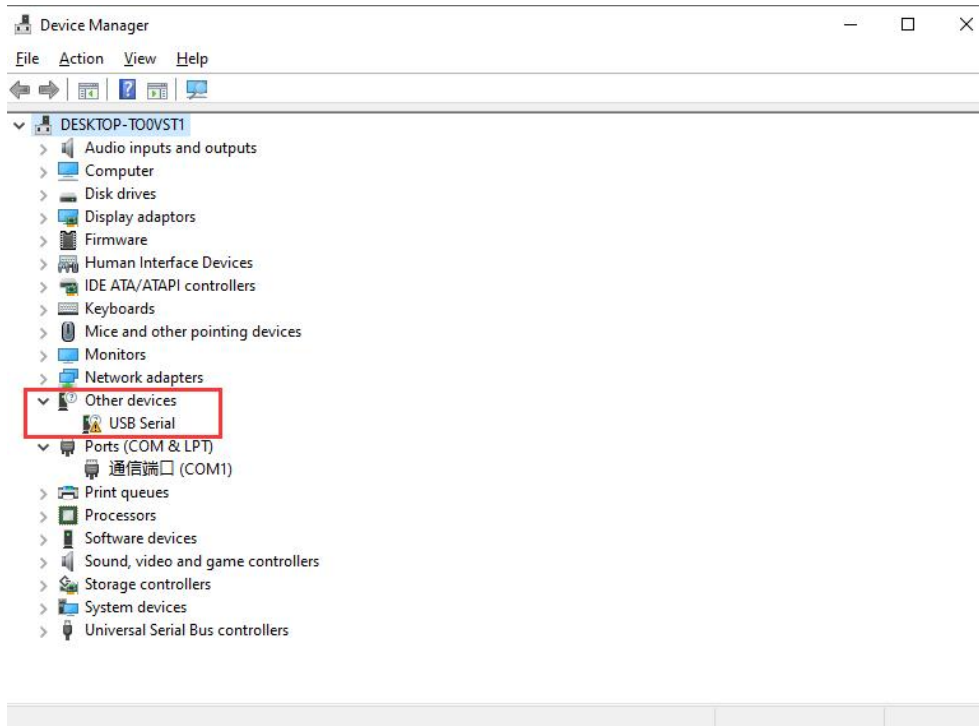
The USB to serial port chip of ESP32 control board is CH340C. Therefore, you need to install the driver for the chip.

The driver installation process is much the same on different systems. Here, we demonstrate the driver installation on a Win10 system. You can find the "[USB_Drive_CH341_3_1](#)" folder in the resources package we provided. This is the driver file we want to install.

1.Check whether CH340 serial port driver is installed (if it is installed, skip it)

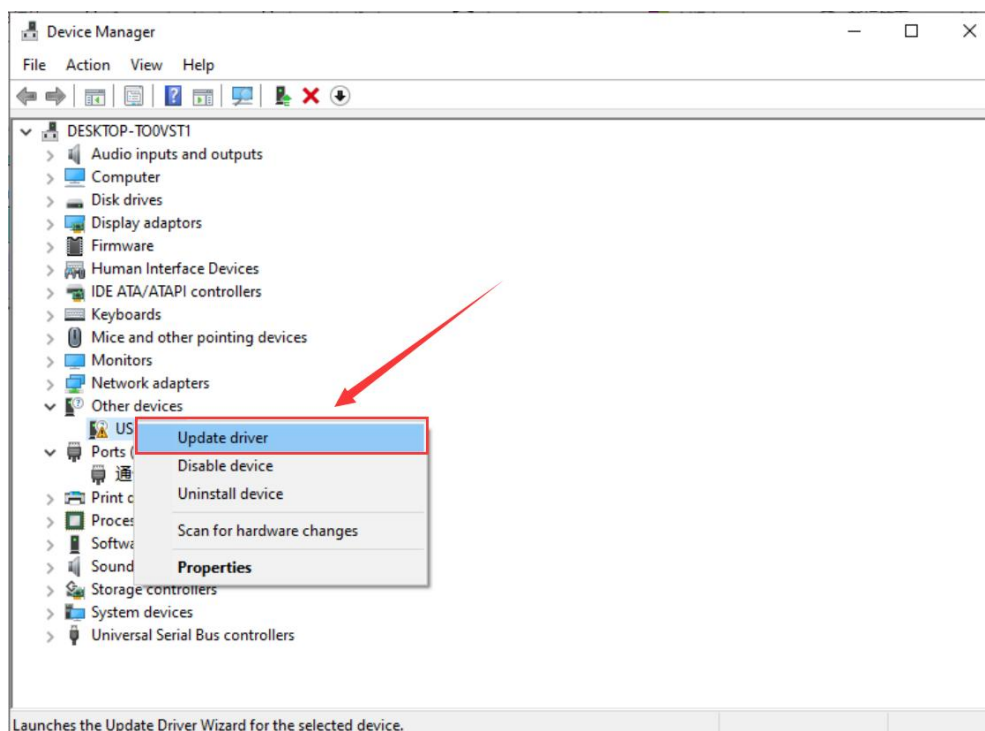
①Plug one end of the USB cable into the ESP32 control board and the other end into the USB port on the computer.

②The first time you connect the ESP32 console to your computer, right-click "My Computer" -> "Attribute" -> Click Device Manager, and under Other Devices, you will see either USB-Serial or Unknown Device.

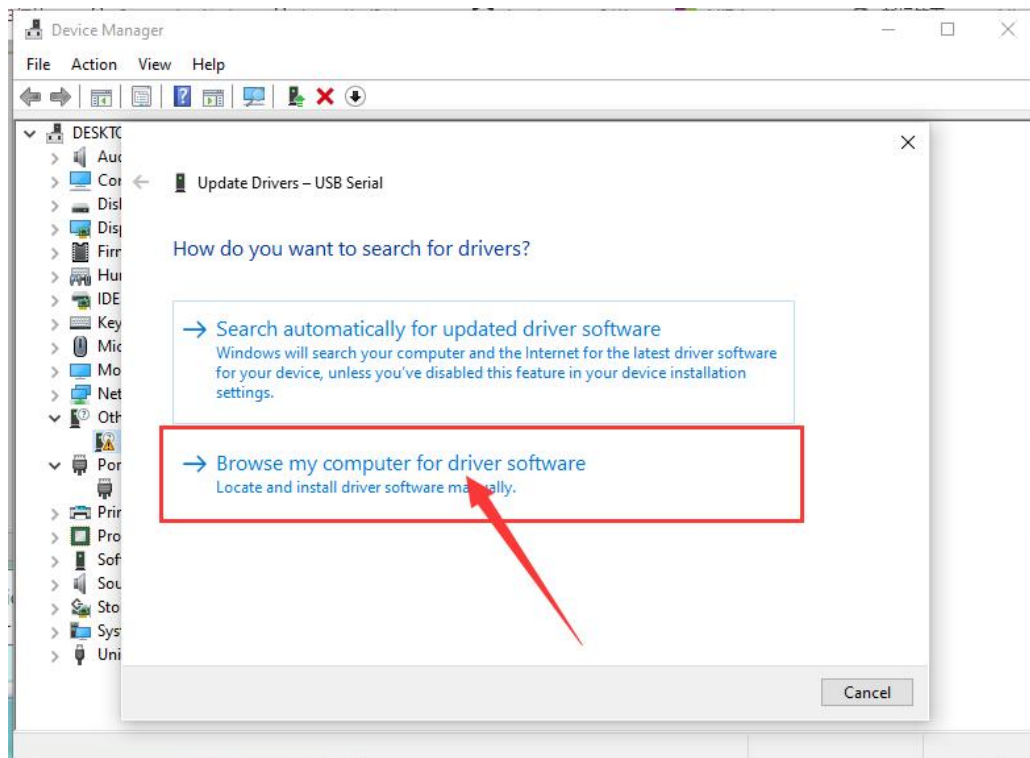


2.Install CH340 serial port driver

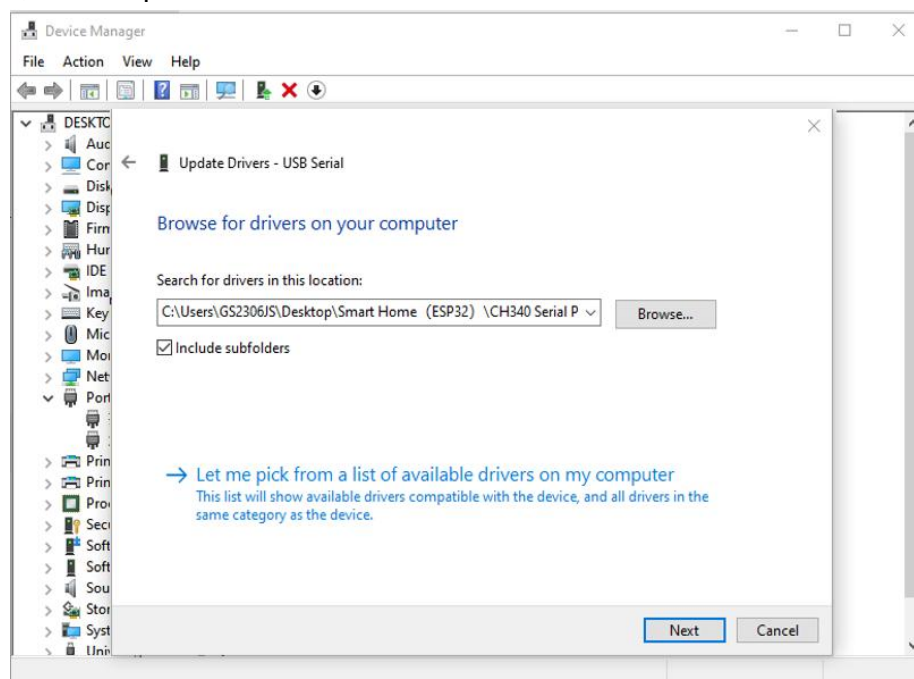
①First right click on the device and select the top menu option (Update Driver Software) as shown below.



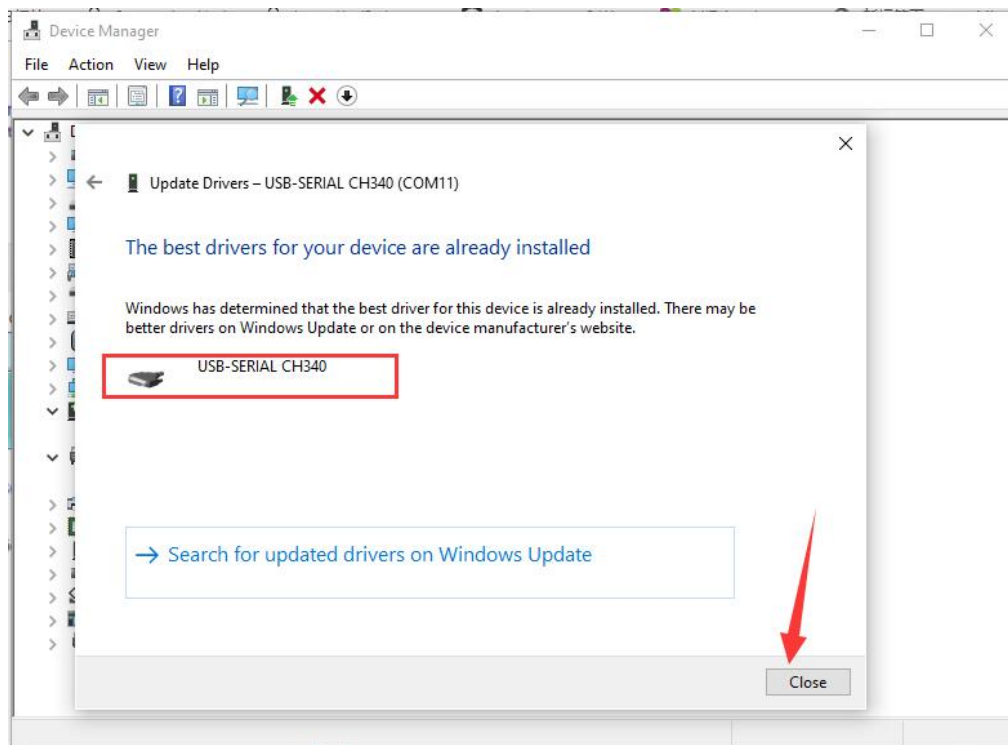
②Then you will be prompted to "Automatically search for updated driver software" or "Browse my computer to find driver software" as shown below. On this page, select "Browse My Computer to find driver software".



③ Then, add the path to the driver file.



④ You will receive a confirmation message after the software installation is complete. Once the installation is complete, click "Close".



3. Confirm that the CH340 serial port driver has been installed successfully

Plug one end of the USB cable into the ESP32 control board and the other end into the USB port on the computer. Right click "My Computer" -> "Attribute" -> Click "Device Manager" and connect to the control panel. The following picture shows that the installation is successful.

