Part 1

lesson 3

Building a Developed Environment

Arduino IDE

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

By using Arduino IDE, you just write the program code in the IDE and upload it to the Arduino circuit board. The program will tell the Arduino circuit board what to do.

So,Where can we download Arduino IDE?

STEP 1:

- [ ] Go to https://www.arduino.cc/en/Main/Software and you will see the following page.
  The version available at this website is usually the latest version, and the actual version may be newer than the version in the picture.

STEP 2:

- [ ] Download the development software that is suited for the operating system of your computer. Take Windows as an example here.

  If you are MacOS, please open 04 For Mac Setting up development environment

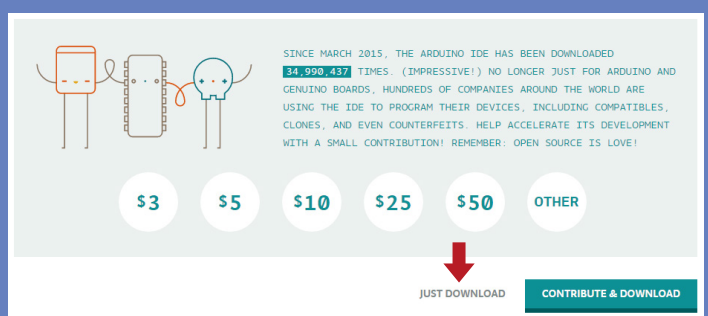
  You can install it using the EXE installation package or the green package.
  The following is the exe implementation of the installation procedures. Press the option "Windows Installer".

STEP 3:

- [ ] Press the button "JUST DOWNLOAD" to download the software.

  The download file:

  arduino-1.8.9-windows



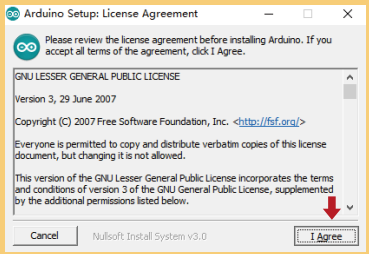
STEP 4:

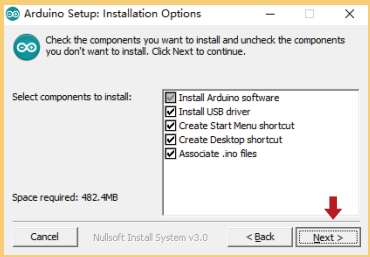
- These are available in the materials we provide, and the versions of our materials are the latest versions when this course was made.

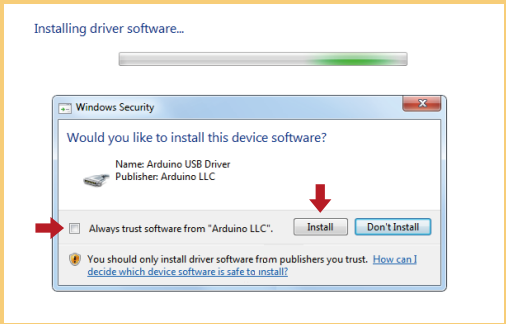
  Choose "I Agree" to see the following interface.

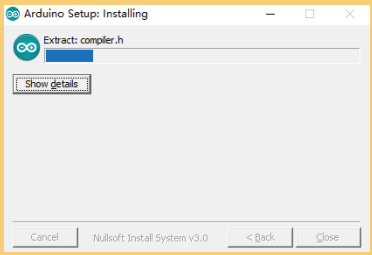
  Choose "Next" to see the following interface.

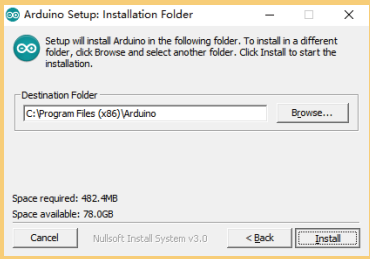
  Press "Install" to initiate installation.











Finally,the following interface appears, you should choose Install to ensure the correct installation.

The installation is required to work with the UNO board. If you don't install the software, the computer would not be able to talk to the board.

STEP 5:

- Next, the following icon appears on the desktop.

Double-click to enter the desired development environment.

① verification

② upload

③ new file

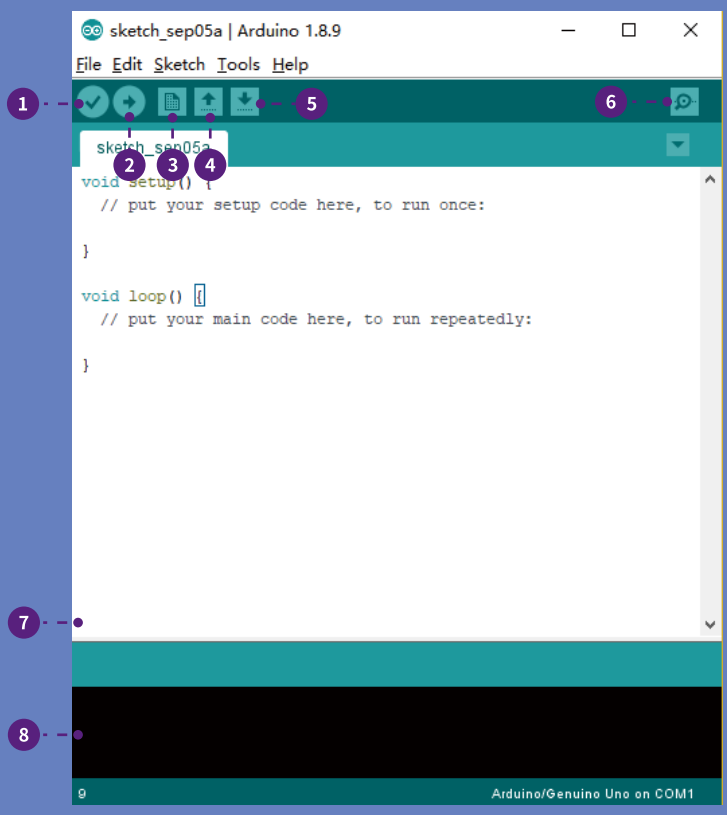
④ open

⑤ save

⑥ serial port

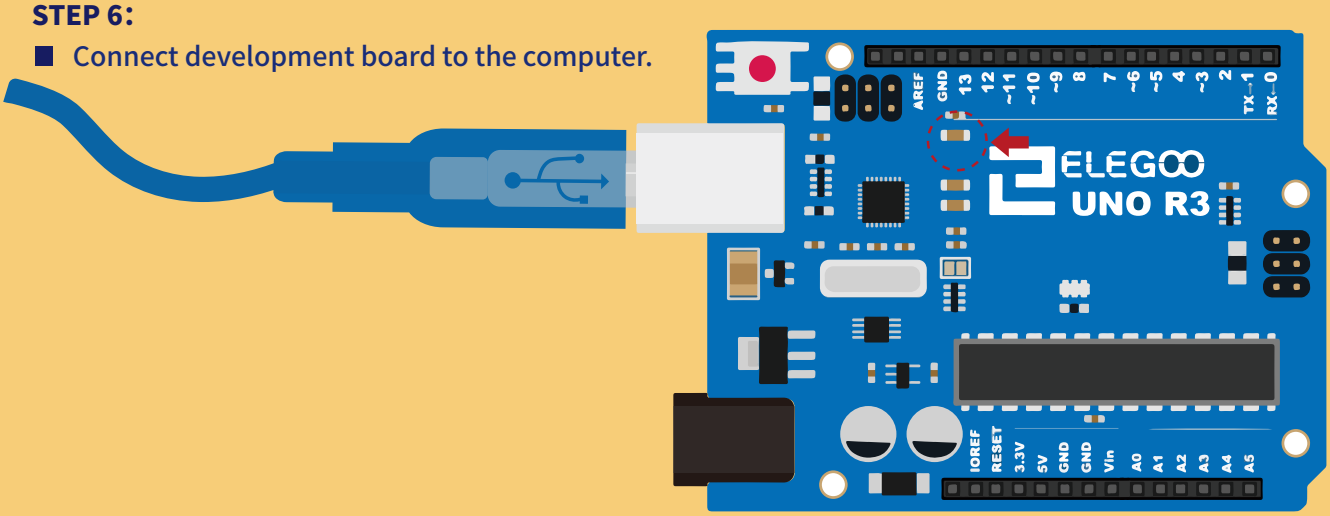
⑦ code writing area

⑧ information bar



STEP 6:

- Connect development board to the computer.

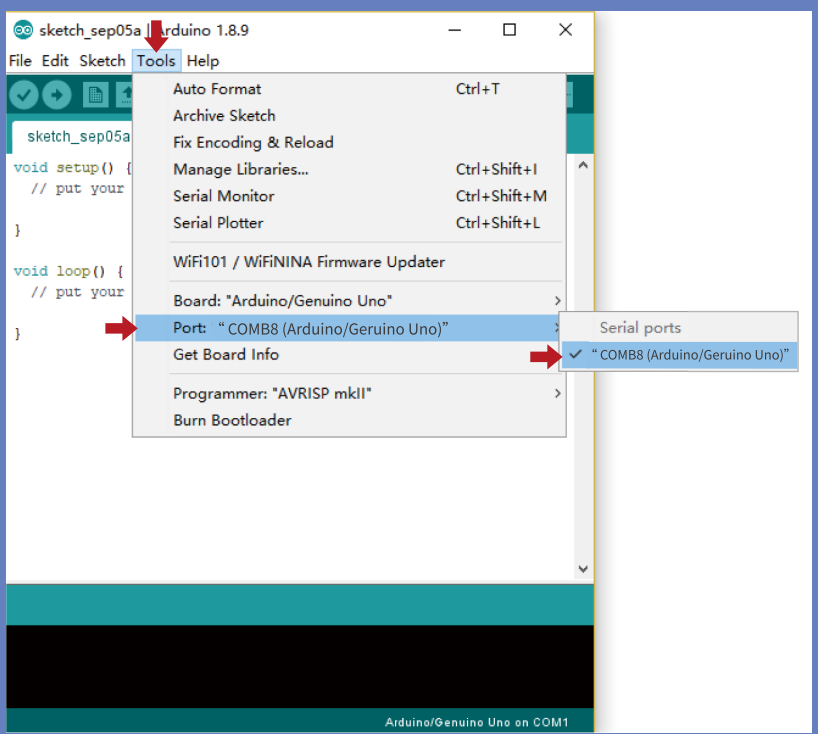


STEP 7:

- Open the Arduino IDE. Select “ Tool ”→ “ Board ”→ “ Arduino/Genuino Uno ”.
  Select “ Tool ”→ “ Port ”→“ COM (Arduino/Genuino Uno) ”.

  Each Arduino Uno board has a different COM number on the same computer and usually the COM number is associated with a suffix name “(Arduino/Genuino Uno)” in Arduino 1.8.9. You should choose the COM number that is shown.

- **Tips:**
  If you see the port “COM (Arduino/Genuino Uno)”, it means that the board has been connected correctly to the computer. At this time, the Arduino development environment has been successfully built.

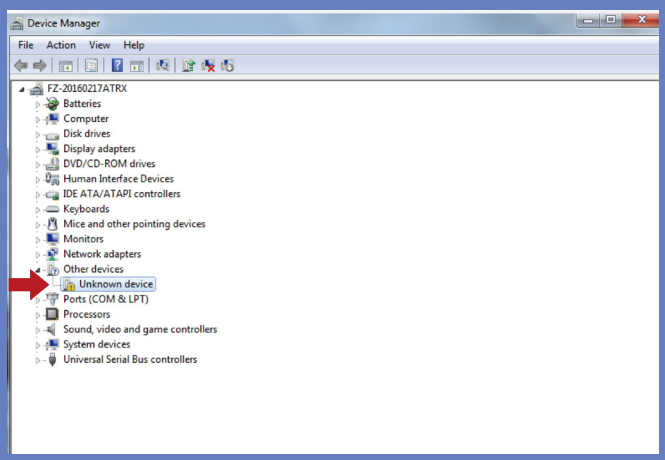


If you see the COM port associated with Arduino/Genuino UNO, your automatic installation is complete and working, go to Step 9.

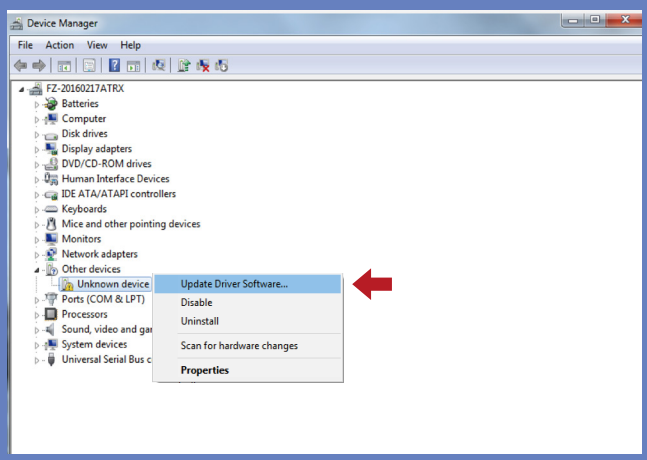
Otherwise, you need to install the driver in the following way manually.

STEP 8:

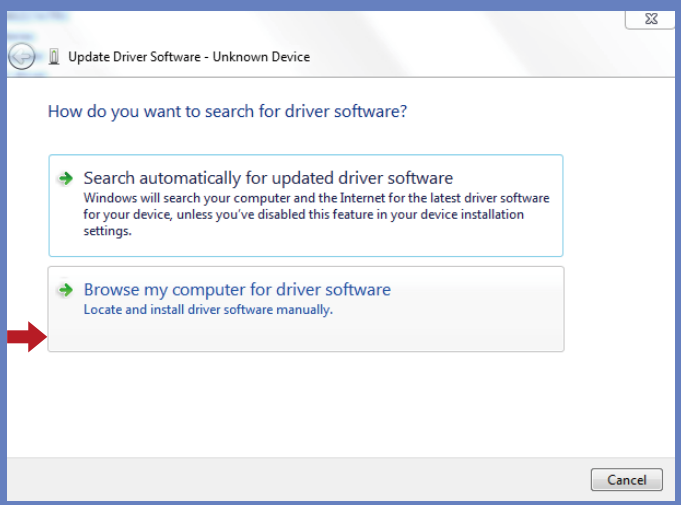
Open Device Manager by right clicking My Computer——Management——Device Manager.



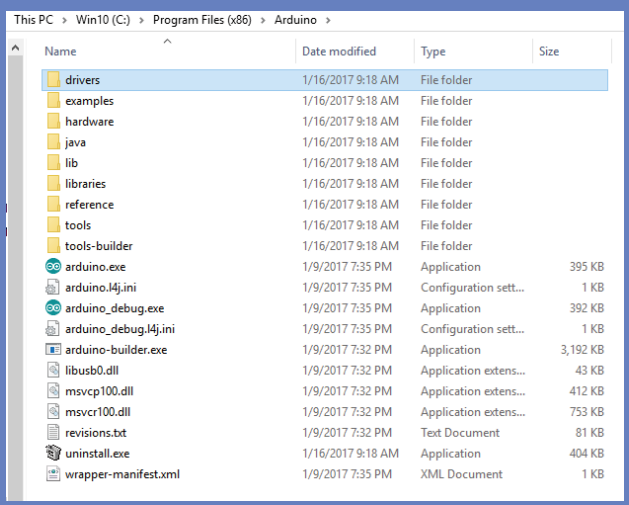
Right click unknown device -- Update Driver Software.



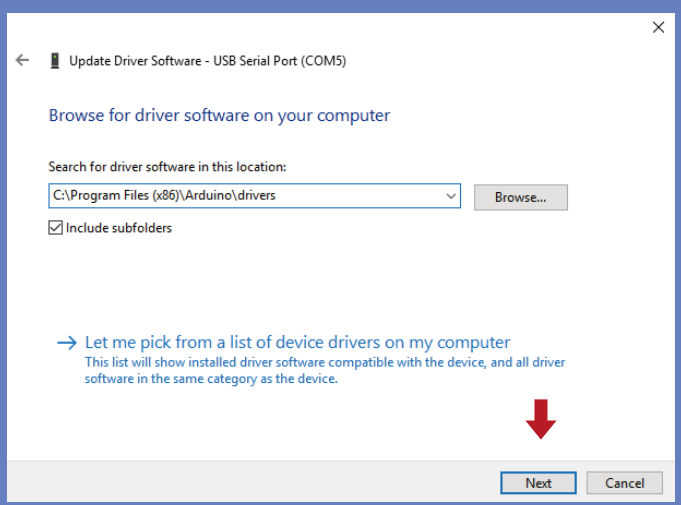
It shows that the driver has not been installed, and you need to click Browse my computer for driver software to find the drivers. The driver is in the Arduino folder. Normally you will install the folder in C:\Program Files (x86)\Arduino.



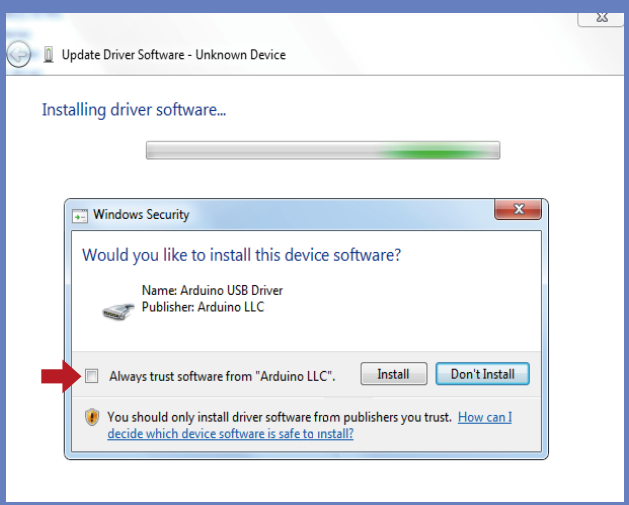
Arduino install folder.



Select the Arduino driver folder.



Install Arduino USB device.



STEP9:

- After the driver is installed, please open the IDE and then click “ Tools ” →“ Board ”→ “ Arduino/Genuino Uno ”.

  And then Select “ Tool ”→“ Select ” → “ Tool ” → “ Port: ” → “ COM (Arduino/Genuino Uno) ”.

  Each Arduino Uno board has a different COM number on the same computer and usually the COM number with a suffix name “(Arduino/Genuino Uno)” in Arduino 1.8.9. You should choose the COM number that is shown.

  At this time, the Arduino development environment has been successfully built !