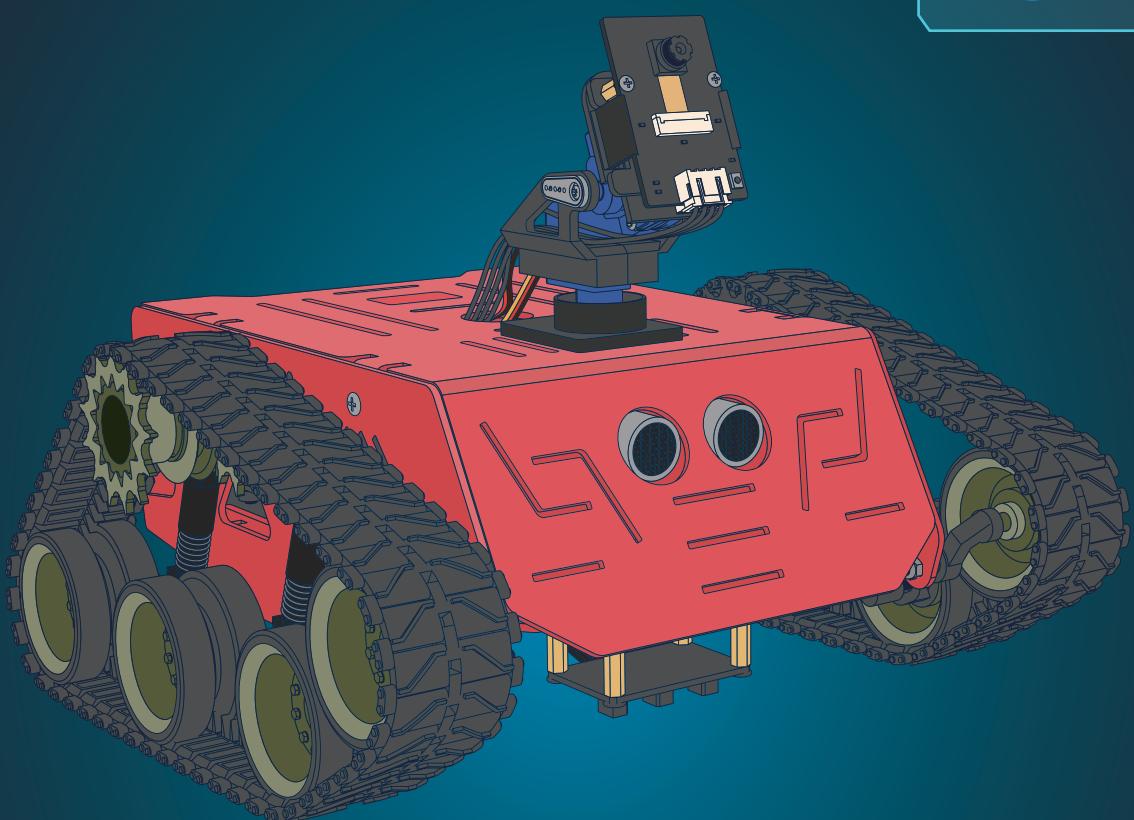


F OR WINDOWS

**Setting up
development 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 01 For Mac** and **Ubuntu Building a Developed 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:



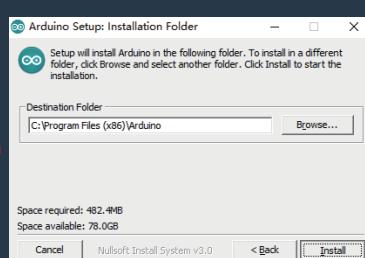
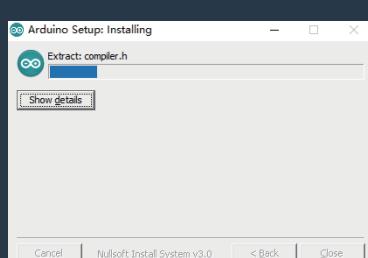
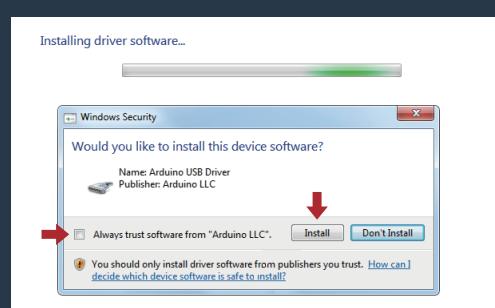
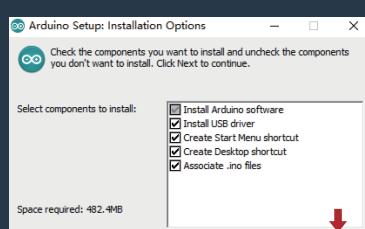
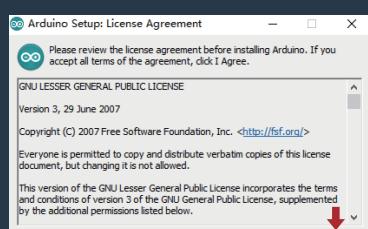
STEP 4:

- 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.

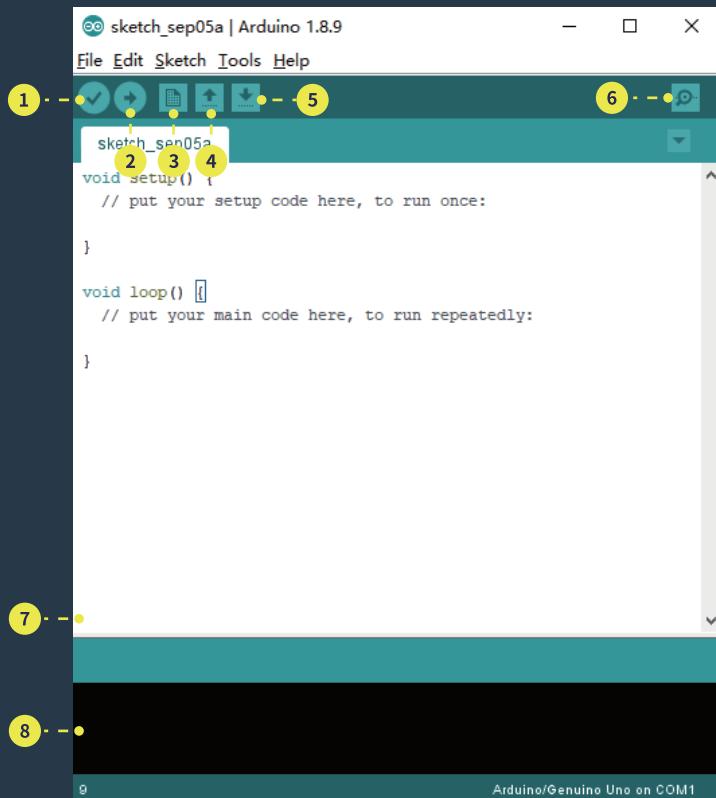
STEP 5:

- Next, the following icon appears on the desktop.



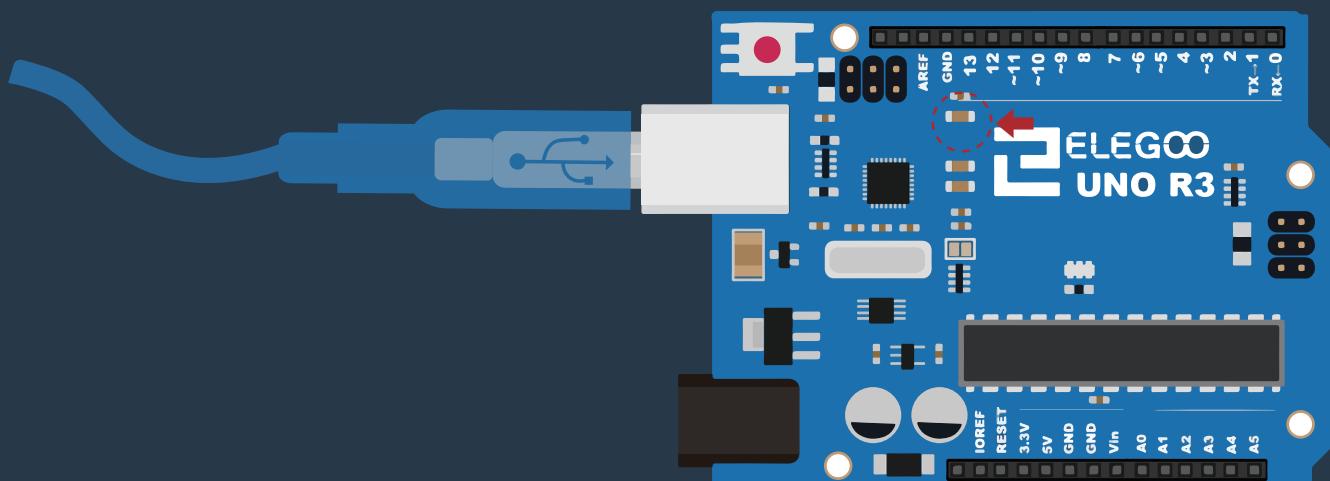
Double-click to enter the desired development environment.

- ① verification
- ② upload
- ③ new file
- ④ open
- ⑤ save
- ⑥ serial monitor
- ⑦ code writing area
- ⑧ information bar



STEP 6:

- Connect development board to the computer.



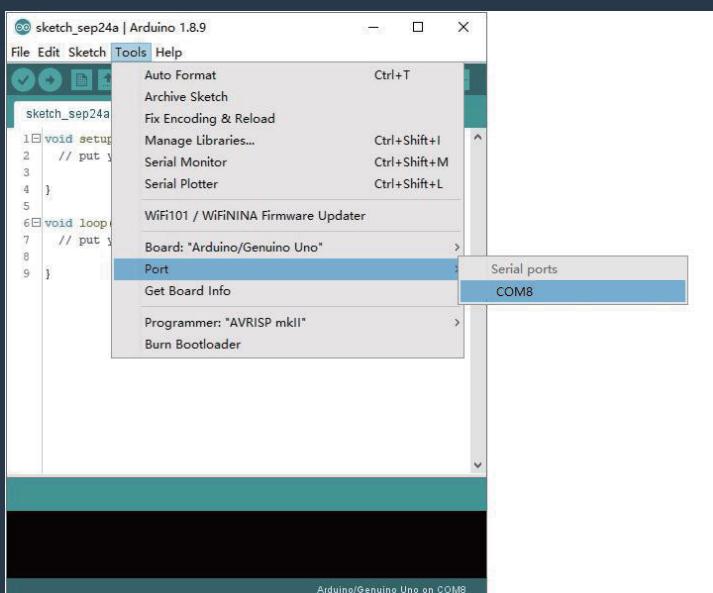
STEP 7:

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

Each Arduino Uno board has a different COM number on the same computer . You should choose the COM port than is latest shown.

Tips:

- The controller board on the robot car does not need to install the driver software on Windows 10, Linux, and macOS operating systems. If you can not find the robot car device on the device manager, please use another USB cable and connect the robot car to another USB port. Please connect the robot car to other computers to make sure this is not a computer issue.

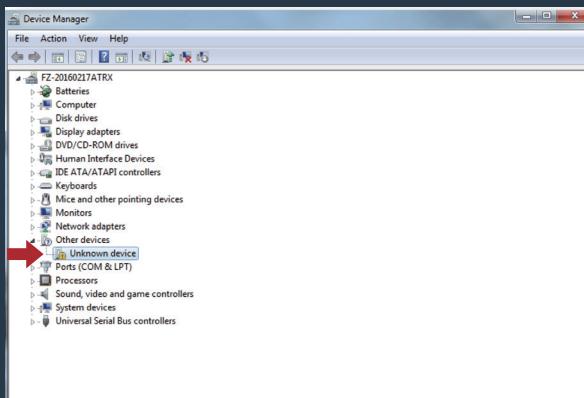


If you see the COM port ,
your automatic installation is
complete and working,
go to Step 9.

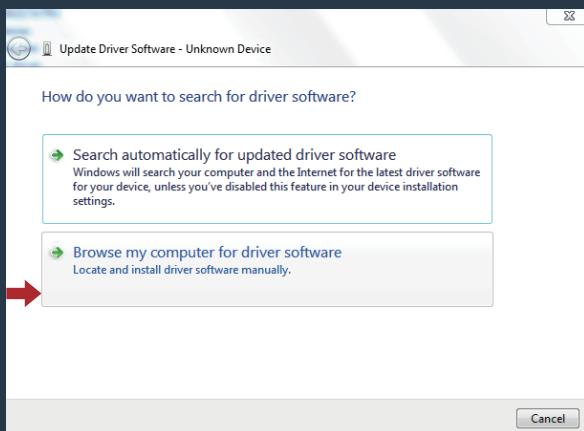
Otherwise, you need to install
the driver in the following way
manually.

STEP 8:

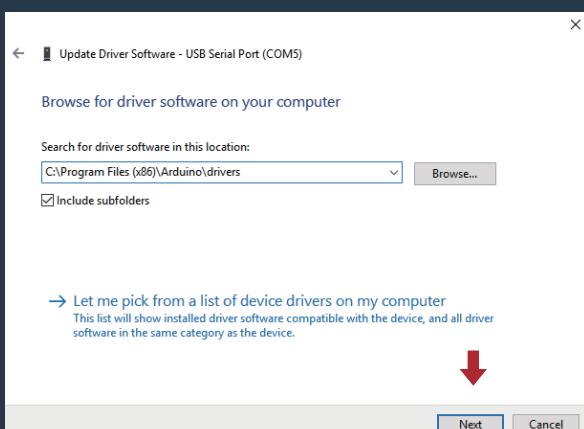
- Open Device Manager by right clicking My Computer—Management —Device Manager.



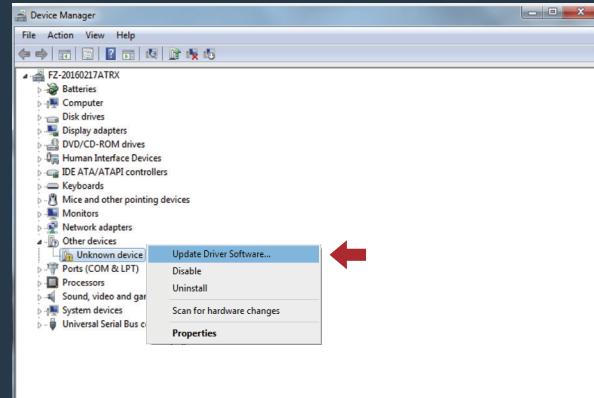
It shows that the driver has not been installed, and you need to click Browse my computer for driver software to find the drivers. The driver is in the Arduino folder. Normally you will install the folder in C:\Program Files (x86)\Arduino.



Select the Arduino driver folder.



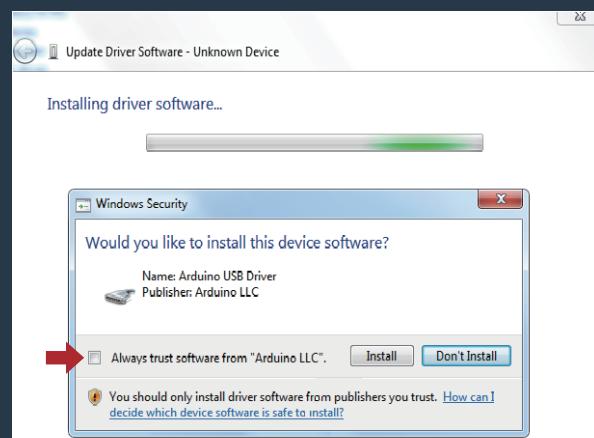
Right click unknown device -- Update Driver Software.



Arduino install folder.

Name	Date modified	Type	Size
drivers	1/16/2017 9:18 AM	File folder	
examples	1/16/2017 9:18 AM	File folder	
hardware	1/16/2017 9:18 AM	File folder	
java	1/16/2017 9:18 AM	File folder	
lib	1/16/2017 9:18 AM	File folder	
libraries	1/16/2017 9:18 AM	File folder	
reference	1/16/2017 9:18 AM	File folder	
tools	1/16/2017 9:18 AM	File folder	
tools-builder	1/16/2017 9:18 AM	File folder	
arduino.exe	1/9/2017 7:35 PM	Application	395 KB
arduino.I4j.ini	1/9/2017 7:35 PM	Configuration sett...	1 KB
arduino_debug.exe	1/9/2017 7:35 PM	Application	392 KB
arduino_debug.I4j.ini	1/9/2017 7:35 PM	Configuration sett...	1 KB
arduino-builder.exe	1/9/2017 7:32 PM	Application	3,192 KB
libusb0.dll	1/9/2017 7:32 PM	Application extens...	43 KB
msvcp100.dll	1/9/2017 7:32 PM	Application extens...	412 KB
msvcr100.dll	1/9/2017 7:32 PM	Application extens...	753 KB
revisions.txt	1/9/2017 7:32 PM	Text Document	81 KB
uninstall.exe	1/16/2017 9:18 AM	Application	404 KB
wrapper-manifest.xml	1/9/2017 7:35 PM	XML Document	1 KB

Install Arduino USB device.



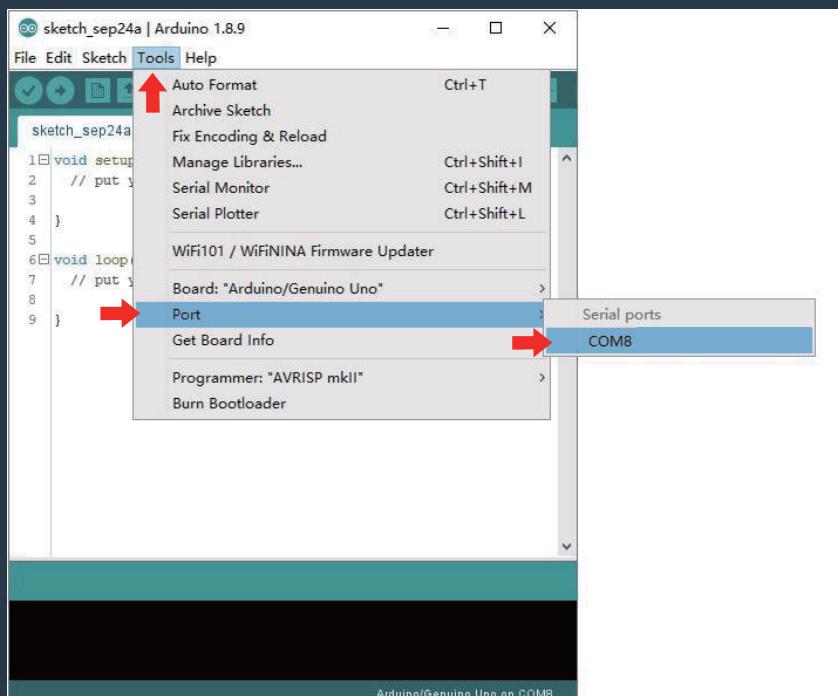
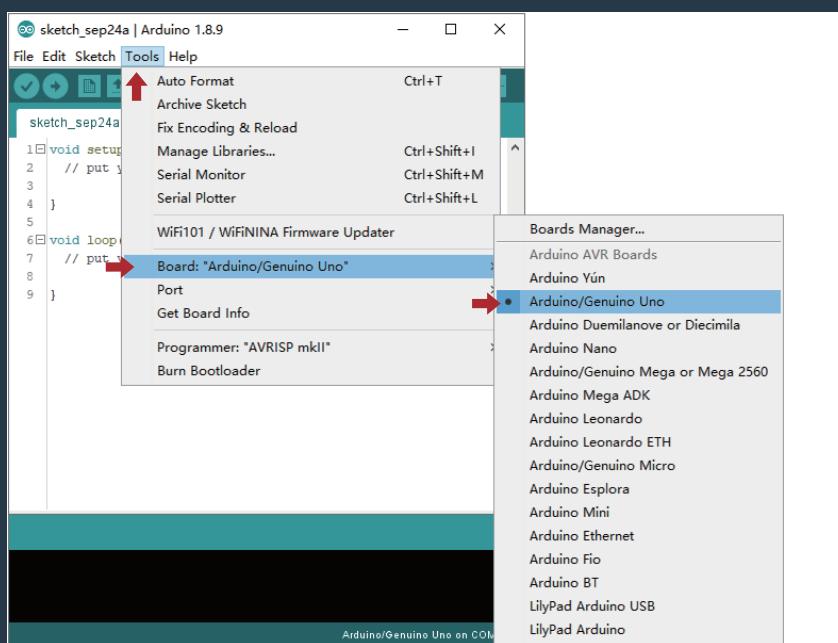
STEP 9:

- 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”.

Each Arduino Uno board has a different COM number on the same computer Arduino 1.8.9. You should choose the COM number that is shown.

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

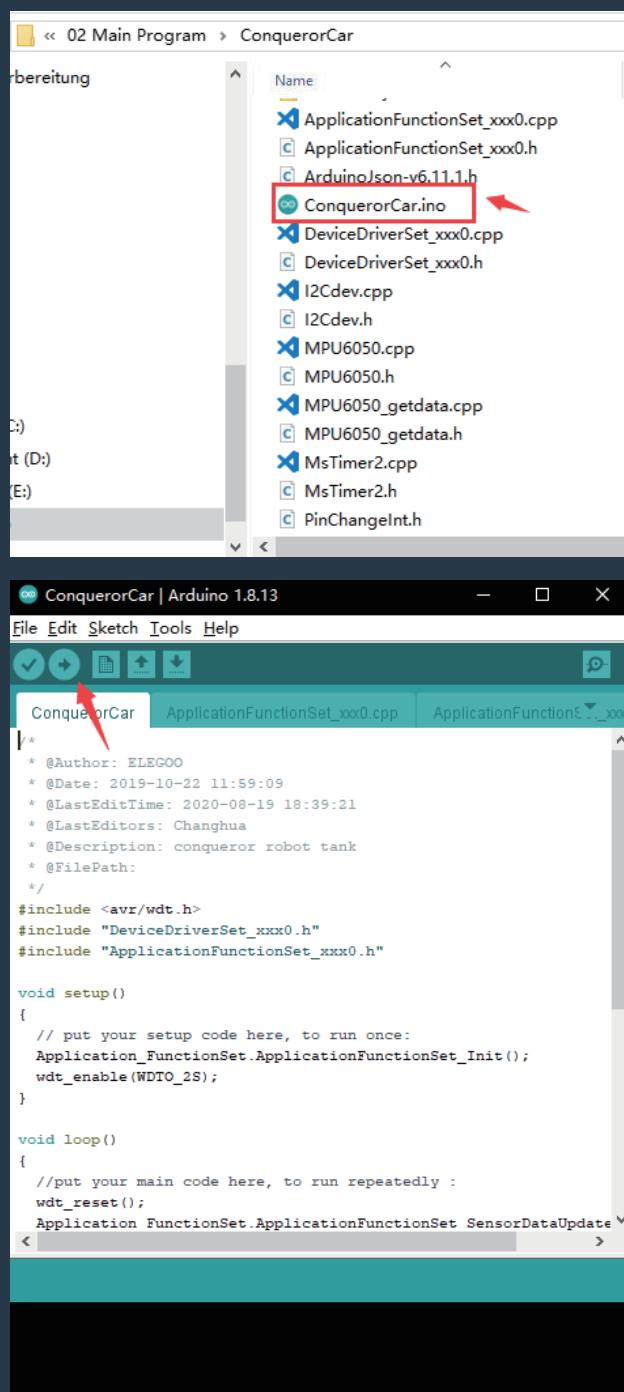


STEP 10:

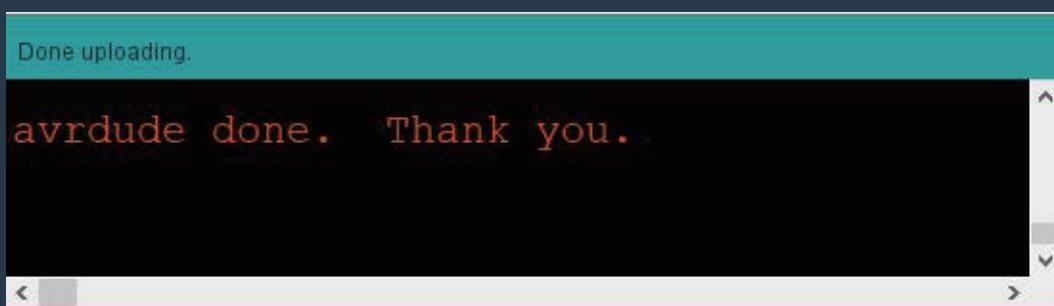
- In this step, I will show you how to upload program to the UNO controller board.

Open the code file in the directory "\02 Manual & Main Code & APP\02 Main Program\ConquerorCar\ConquerorCar.ino" and click "upload" button to upload the code to the UNO controller board.

Tips: Please toggle the button on the robot car to “Upload” when uploading the program and toggle to “Cam” when using the app.



- The picture below shows that the program is uploaded successfully.



The screenshot shows a terminal window with a dark background and light-colored text. At the top, a green header bar displays the text "Done uploading.". Below this, the main terminal area shows the message "avrdu~~e~~ done. Thank you." in white text. The window has scroll bars on the right side and a small title bar at the bottom.

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

ELEGOO

<http://www.elegoo.com>