

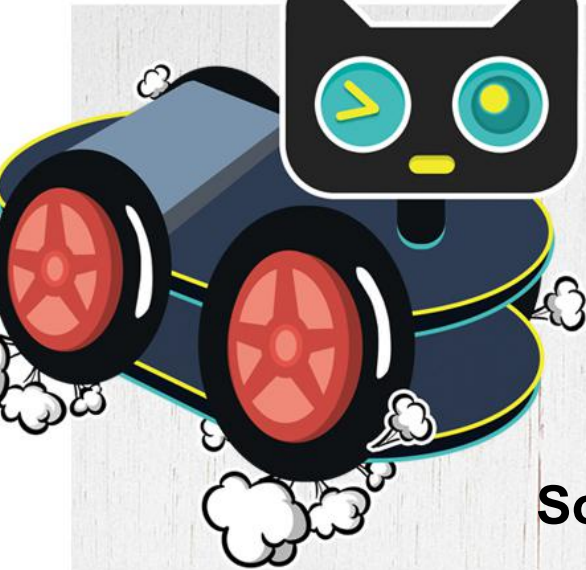


UNOBOT 3.0 SMART ROBOT CAR

Arduino IDE

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

In the next part, each movement of the vehicle is controlled by the program so it's necessary to get the program installed and set up correctly. 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.



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So, where can we download Arduino IDE?

STEP 1:

Go to

<https://www.arduino.cc/en/Main/Software>

and you will see below 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.

Downloads



Arduino IDE 1.8.13

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board.

Refer to the [Getting Started](#) page for Installation instructions.

SOURCE CODE

Active development of the Arduino software is [hosted by GitHub](#). See the instructions for [building the code](#). Latest release source code archives are available [here](#). The archives are PGP-signed so they can be verified using [this](#) gpg key.

DOWNLOAD OPTIONS

Windows Win 7 and newer

Windows ZIP file

Windows app Win 8.1 or 10 [Get](#)

Linux 32 bits

Linux 64 bits

Linux ARM 32 bits

Linux ARM 64 bits

Mac OS X 10.10 or newer

[Release Notes](#)

[Checksums \(sha512\)](#)



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STEP 2:

Download the development software that is suitable for the operating system of your computer.

Take Windows as an example here.

If you are MacOS, please close the file and open the “For Mac Lesson 0 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.



Arduino IDE 1.8.13

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STEP 3:

Press the button “JUST
DOWNLOAD” to download the
software.

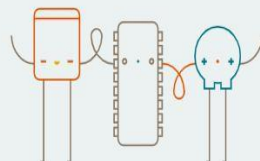
The download file:



arduino-1.8.13-windows

Contribute to the Arduino Software

Consider supporting the Arduino Software by contributing to its development. (US tax payers, please note this contribution is not tax deductible). Learn more on how your contribution will be used.



SINCE MARCH 2015, THE ARDUINO IDE HAS BEEN DOWNLOADED **33,900,847** TIMES. (IMPRESSIVE!) NO LONGER JUST FOR ARDUINO AND GENUINO BOARDS, HUNDREDS OF COMPANIES AROUND THE WORLD ARE USING THE IDE TO PROGRAM THEIR DEVICES, INCLUDING COMPATIBLES, CLONES, AND EVEN COUNTERFEITS. HELP ACCELERATE ITS DEVELOPMENT WITH A SMALL CONTRIBUTION! REMEMBER: OPEN SOURCE IS LOVE!

\$3

\$5

\$10

\$25

\$50

OTHER

JUST DOWNLOAD

CONTRIBUTE & DOWNLOAD



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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.

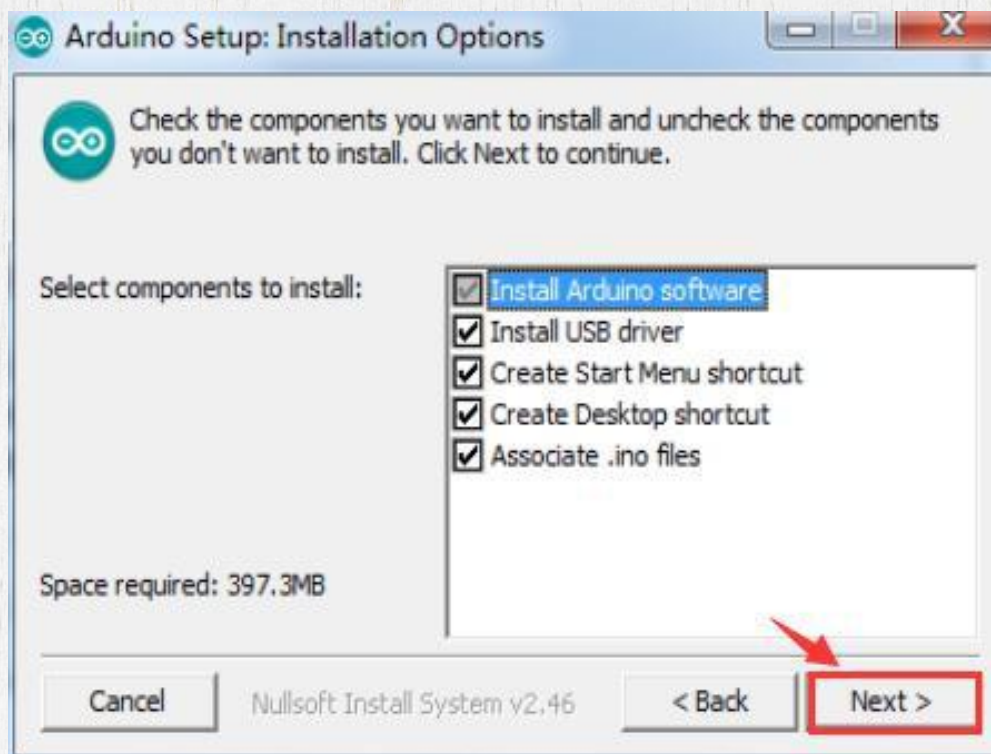


Choose **"I Agree"** to see the following interface.



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Choose "Next" to see the following interface.

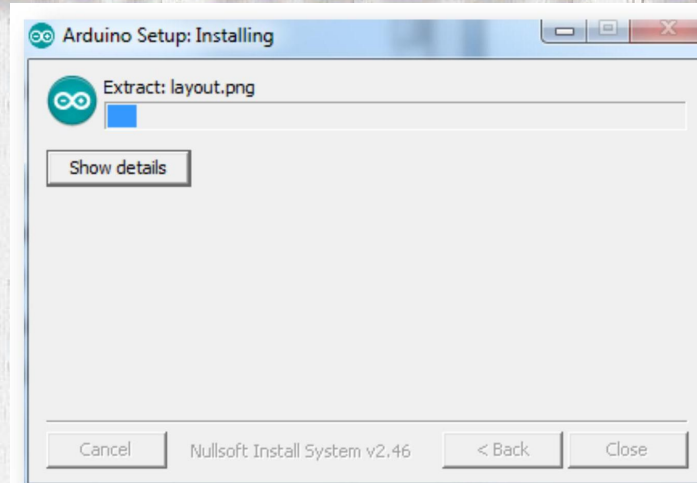




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Finally, the following interface appears, you should choose “Install” to ensure the correctness of development.





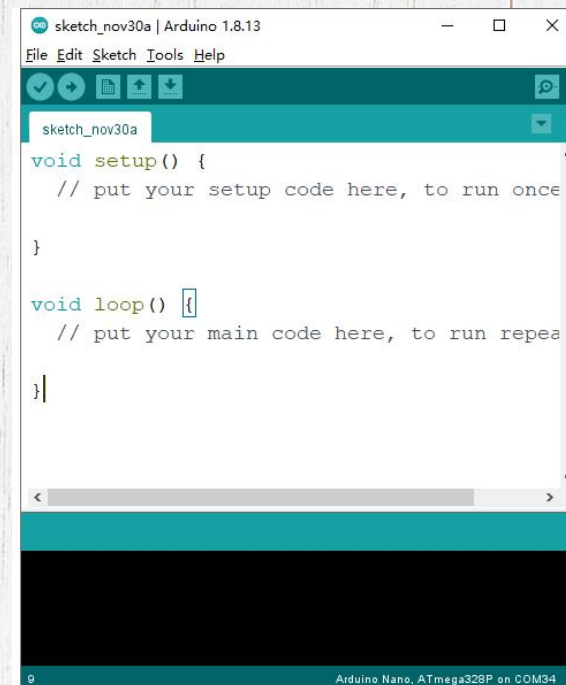
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STEP 5:

Next, the following icon appears on the desktop.

Double-click to enter the desired development environment.

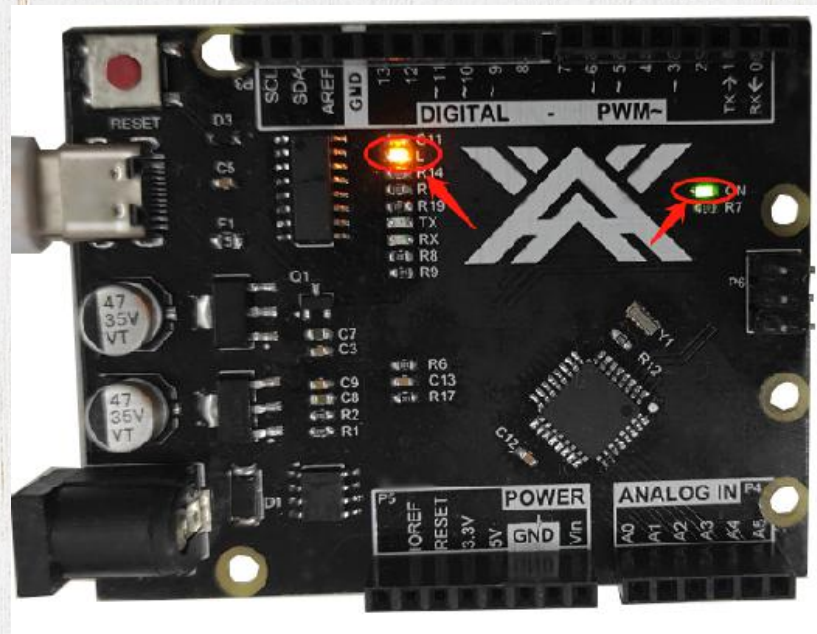




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STEP 6:

Connect development board of the car to the computer.



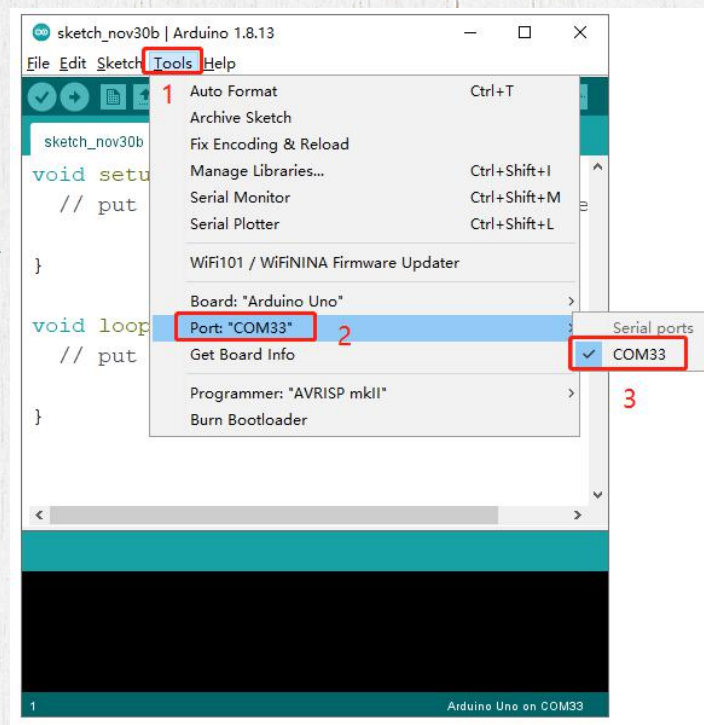


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STEP 7:

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

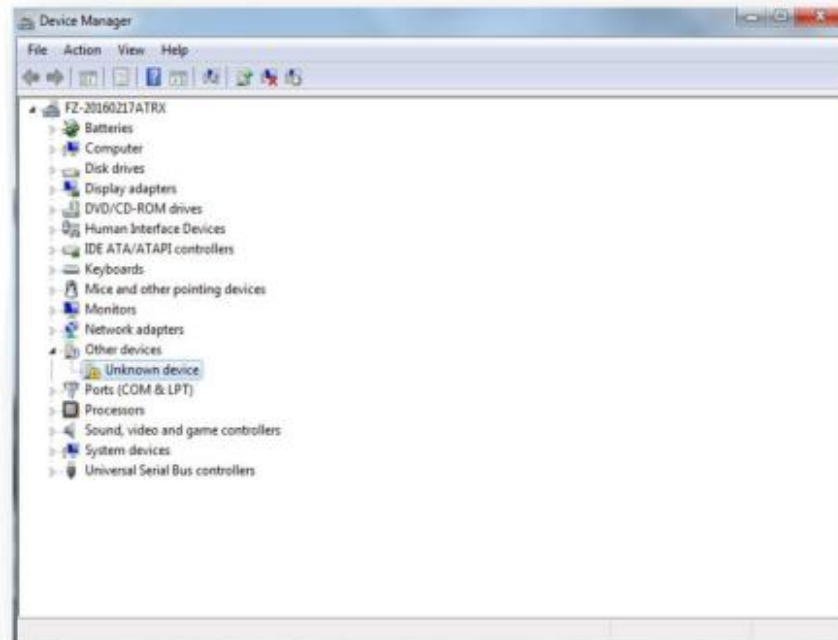
Each Arduino Uno board has a different COM number on the same computer and usually the COM number with a suffix name “(Arduino/Genuino Uno)” in Arduino 1.8.9. You should choose the COM number of the actual display.





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If you see the port “COM (XX)”, it means that the vehicle has been connected correctly to the computer. In this case, you can jump to STEP 8 directly. Otherwise, you will need to manually install the driver in the following way.



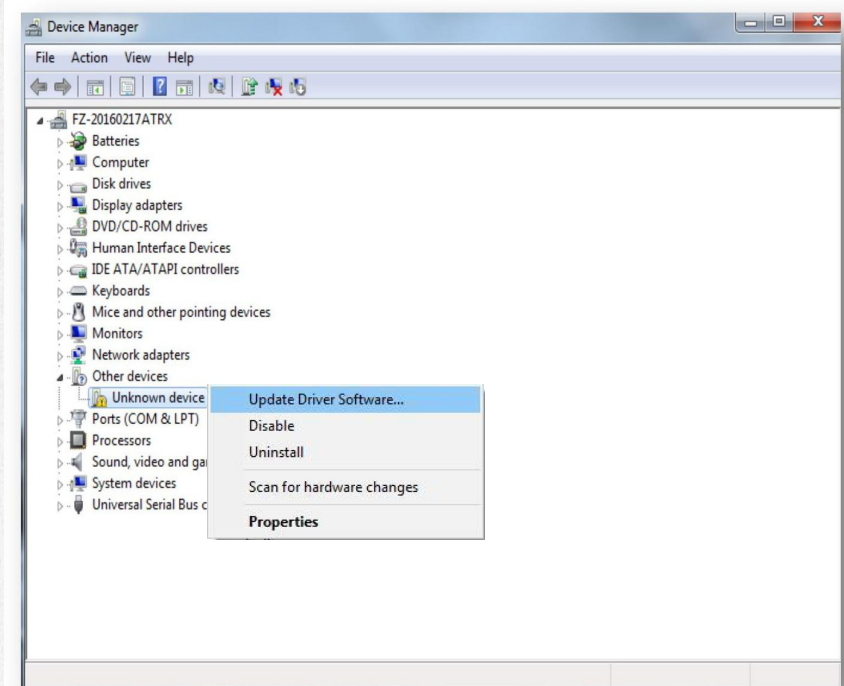


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Open Device Manager by right click **My Computer**——**Management**——**Device Manager**.

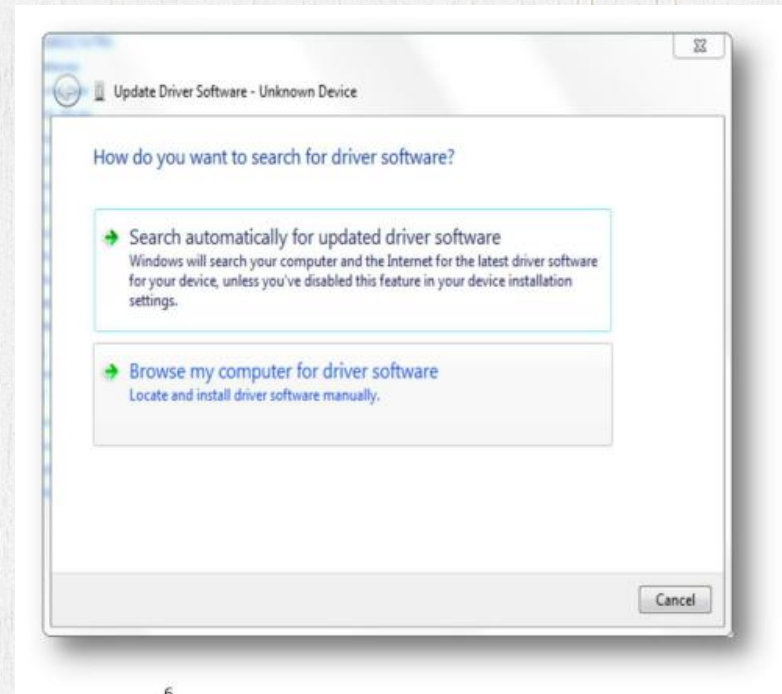
Right click unknown——device **Update Device Software**.





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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 drives is in the Arduin folder. Normally you will install the folde in [C:\Program Files \(x86\)\Arduino](#).





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Arduino install folder.

(D:) > Arduino > arduino-1.8.13-windows > arduino-1.8.13

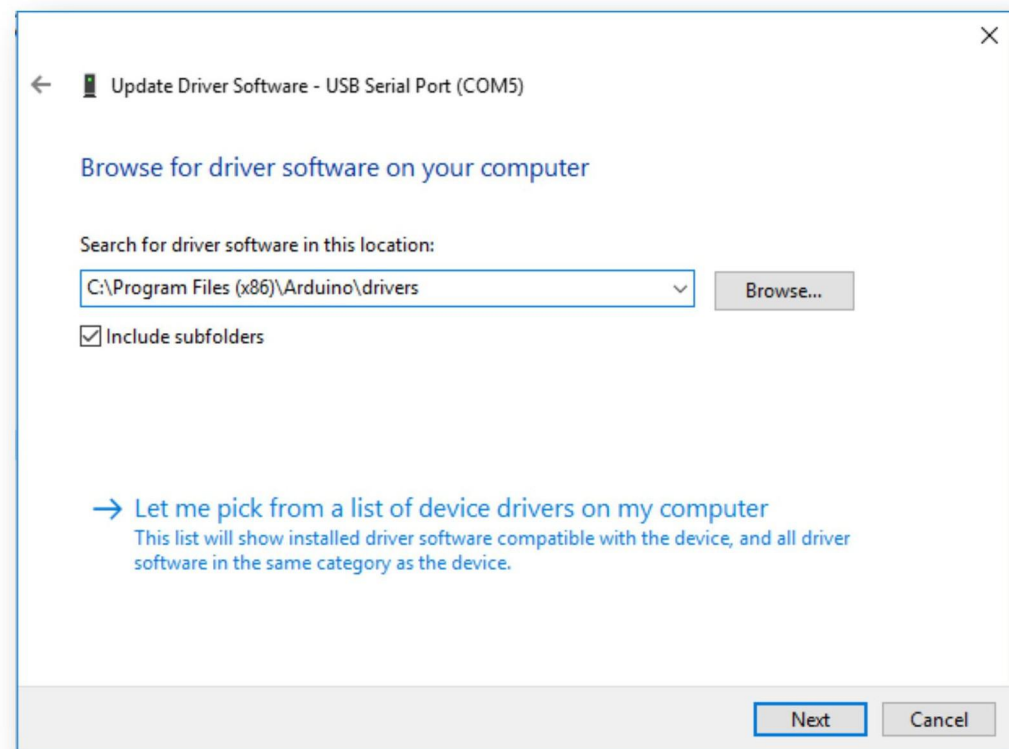
名称	修改日期	类型	大小
drivers	2020-07-13 10:03	文件夹	
examples	2020-08-16 13:59	文件夹	
hardware	2020-07-13 10:03	文件夹	
java	2020-07-13 10:03	文件夹	
lib	2020-07-13 10:03	文件夹	
libraries	2020-10-06 16:40	文件夹	
reference	2020-07-13 10:03	文件夹	
tools	2020-08-16 13:39	文件夹	
tools-builder	2020-08-16 13:52	文件夹	
arduino	2020-06-16 11:44	应用程序	72 KB
arduino.l4j	2020-06-16 11:44	配置设置	1 KB
arduino_debug	2020-06-16 11:44	应用程序	69 KB
arduino_debug.l4j	2020-06-16 11:44	配置设置	1 KB
arduino-builder	2020-06-16 11:44	应用程序	18,137 KB
libusb0.dll	2020-06-16 11:44	应用程序扩展	43 KB
msvcp100.dll	2020-06-16 11:44	应用程序扩展	412 KB
msvcr100.dll	2020-06-16 11:44	应用程序扩展	753 KB
revisions	2020-06-16 11:44	文本文档	94 KB
wrapper-manifest	2020-06-16 11:44	XML 文档	1 KB

ers only



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Select the Arduino driver folder.



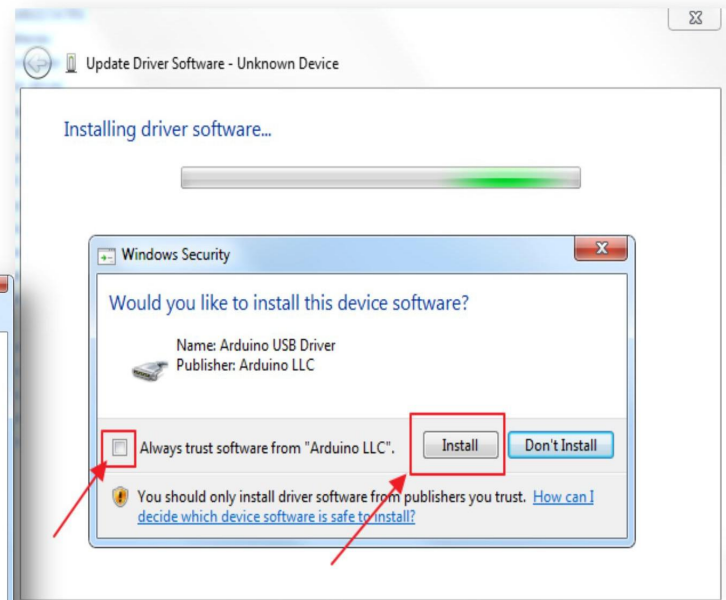
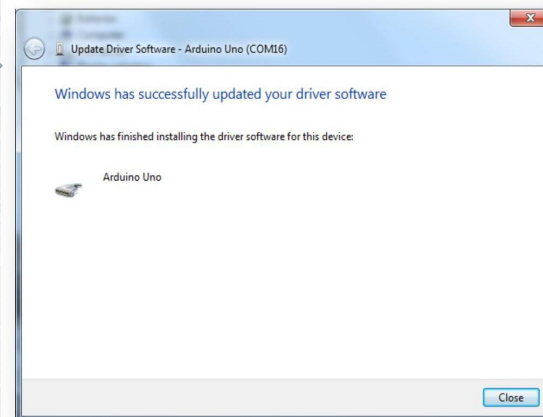


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Install Arduino USB Device.



Finally,



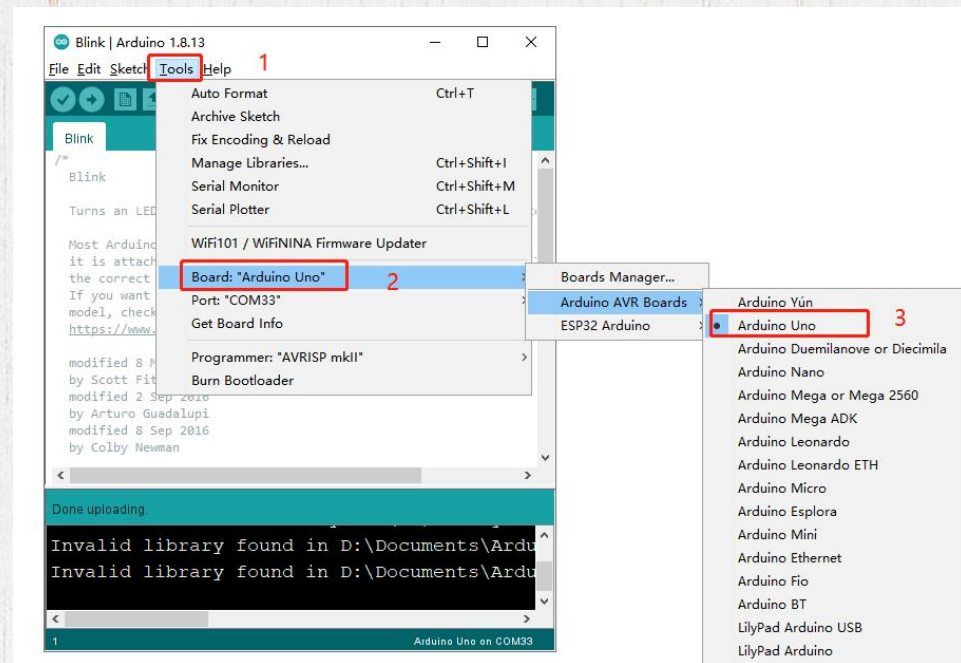


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STEP 9:

After the driver is installed,
please open the IDE and then
click

"Tools" → "Board" →
"Arduino/Genuino Uno".

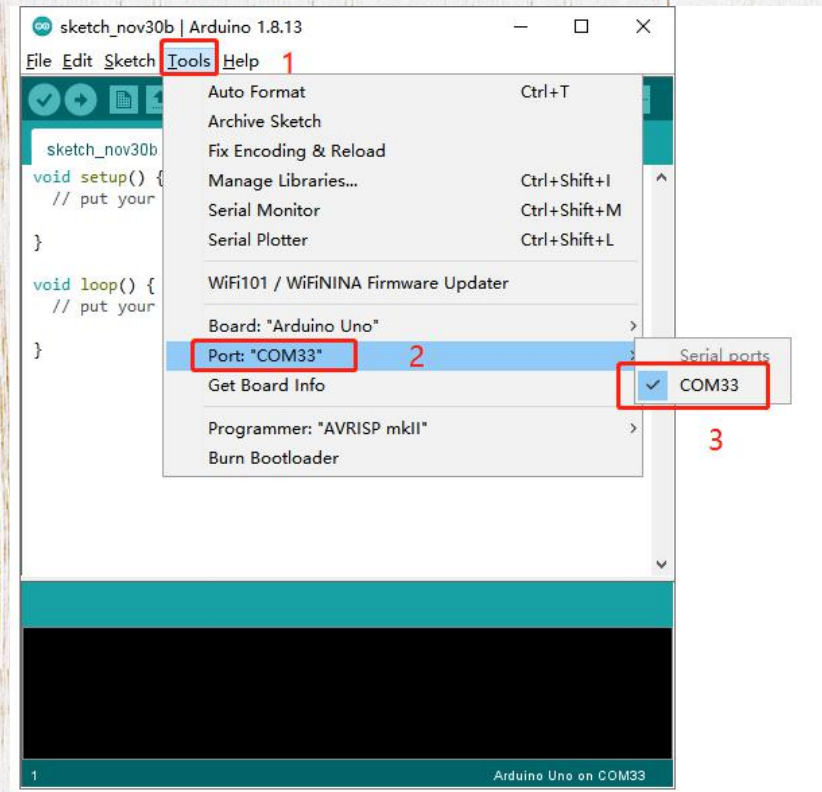




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STEP 10:
Click “Tools” → “Port” →
COM.





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Open the code file in the directory
 "\\Lesson 1 Make The Car Move \\AUTO_GO\\AUTO_GO.ino"
 upload to the UNO controller board.

名称	修改日期	类型
 AUTO_GO	2020-11-06 10:16	Arduino file



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TIPS:

When uploading codes, please remove the Bluetooth module from the IO expansion board (Because the serial port for uploading codes and Bluetooth communication is the same one and there will be conflicts). You can install the Bluetooth module after the program is uploaded.

```
AUTO_GO | Arduino 1.8.13
File Edit Sketch Tools Help
[Icons]
AUTO_GO $
/*****
 *      TIME:2020.10.27
 *   Development Team: Zhiyi Technology Co., Ltd.
 *           auto go
 *
 *****/
//define L298n module IO Pin
#define ENA 5
#define ENB 6
#define IN1 7
#define IN2 8
#define IN3 9
#define IN4 11
```

28 Arduino Uno on COM33



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The picture above shows that it is uploaded successfully.

Done uploading.

Sketch uses 2,996 bytes (9%) of program storage space. Maximum is 32,256 bytes.
Global variables use 238 bytes (11%) of dynamic memory, leaving 1,810 bytes free.



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

