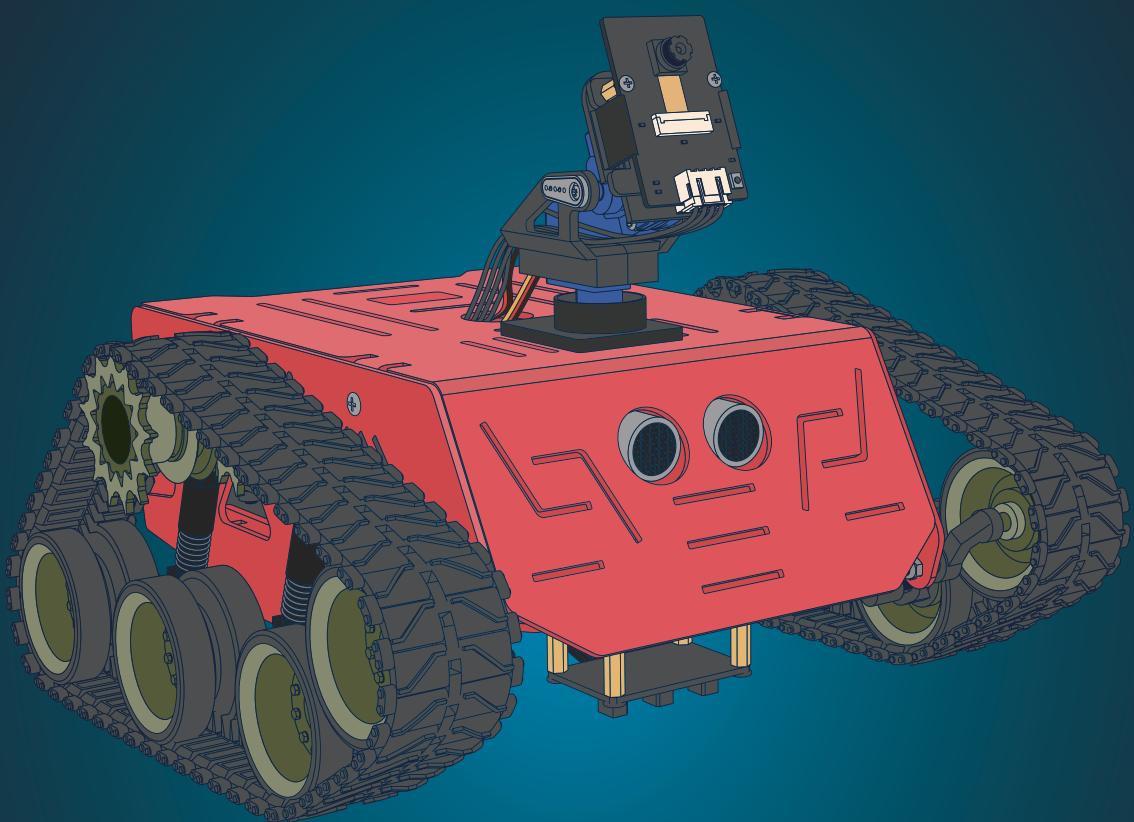


F or Mac and Ubuntu

Building a Developed Environment



Arduino IDE

As an open source **software**, Arduino IDE, based on going 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?

Upload program for MacOS

STEP 1:

- Download the Arduino Software (IDE) Open the URL:<https://www.arduino.cc/en/Main/Software> with browser. Click “Mac OSX 10.8 Lion or newer”.

The version available at this website is usually the latest version, and the actual version may be newer than the version in the picture.



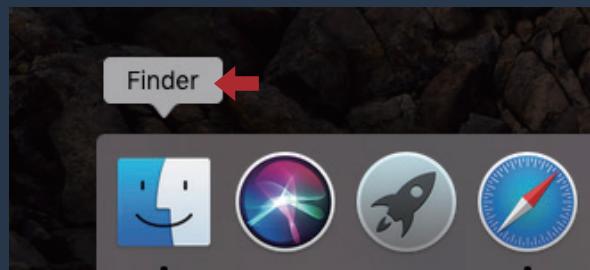
STEP 2:

- Click “JUST DOWNLOAD”



STEP 3:

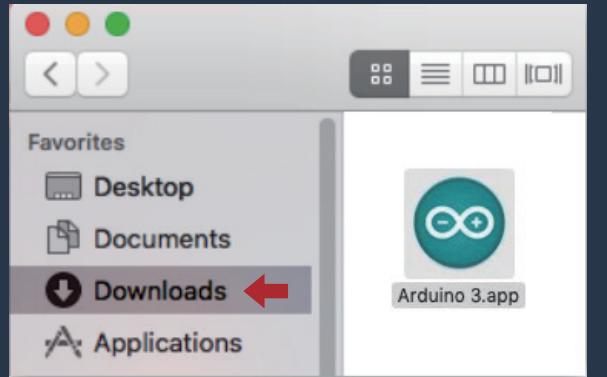
- Open Finder.



STEP 4:

- After the download is complete, an installation package will appear in the download directory.

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



Upload program for Ubuntu

STEP 1:

- Go to <https://www.arduino.cc/en/Main/Software> and you will see the below page.

The version available at this website is usually the latest version, and the actual version maybe newer than the version in the picture.

Download the Arduino IDE

A screenshot of the Arduino Software download page. On the left, there is a large teal circular logo with a white infinity symbol containing a minus and plus sign. To the right of the logo, the text "ARDUINO 1.8.12" is displayed. Below this, there is a brief description of what the Arduino Software does. Further down, there are download links for Windows, Mac OS X, and Linux. The Linux section is highlighted with a red box around the "Linux 32 bits", "Linux 64 bits", "Linux ARM 32 bits", and "Linux ARM 64 bits" links. Other links shown include "Windows Installer, for Windows XP and up", "Windows ZIP file for non admin install", "Windows app Requires Win 8.1 or 10", "Get", "Mac OS X 10.8 Mountain Lion or newer", "Release Notes", "Source Code", and "Checksums (sha512)".

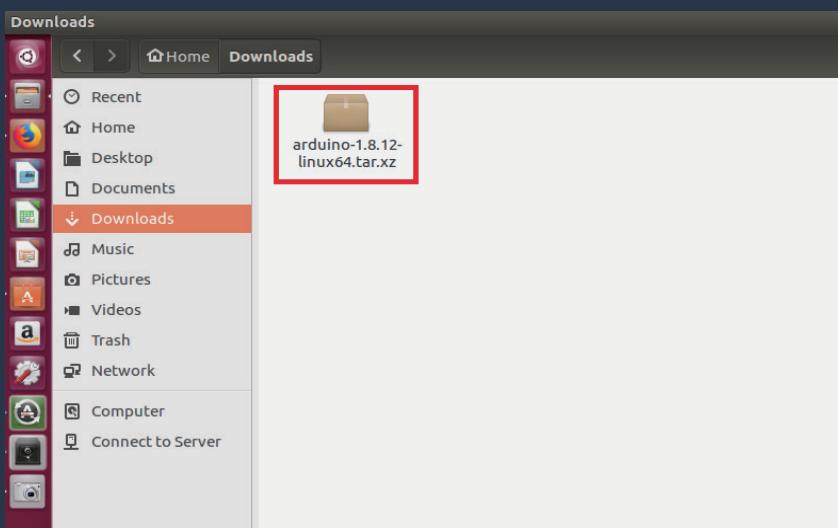
STEP 2:

- Click “JUST DOWNLOAD”.



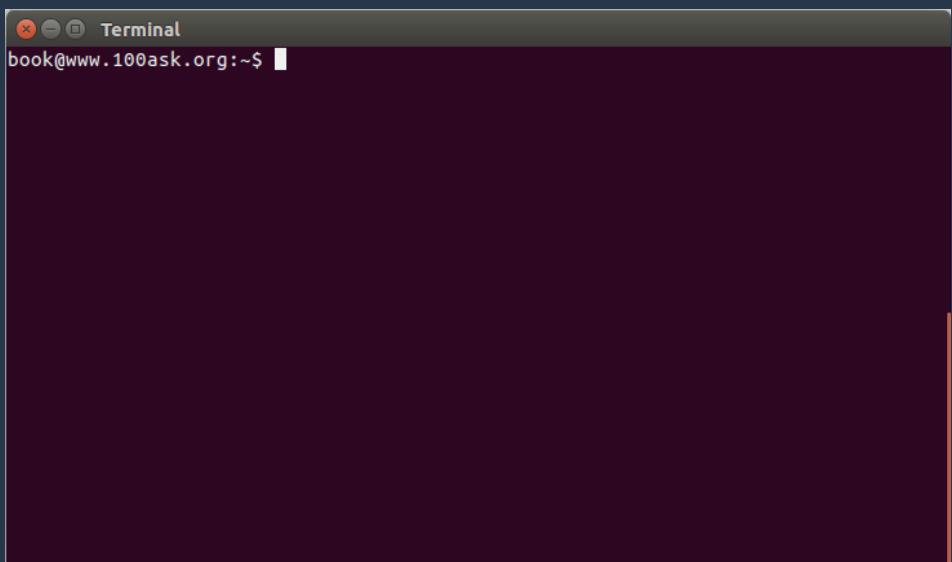
STEP 3:

- Check that the download was successful.



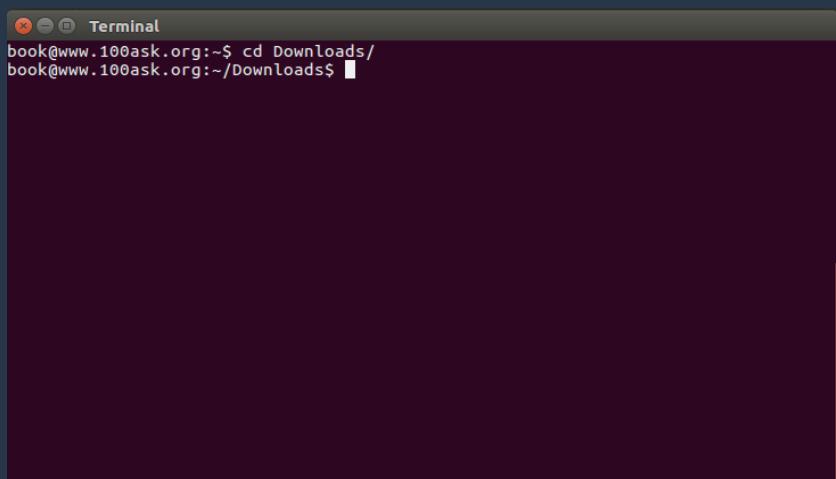
STEP 4:

- Press “CTRL + ALT + T” at the same time to open the command



STEP 5:

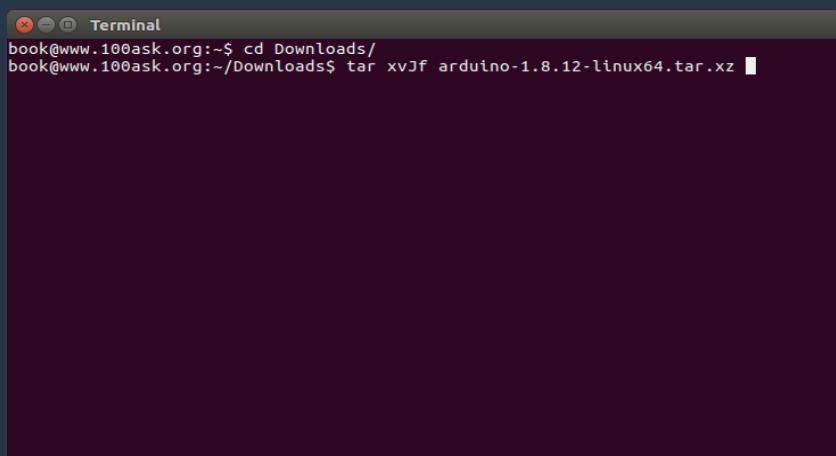
- Enter “cd Downloads/”.



```
Terminal
book@www.100ask.org:~$ cd Downloads/
book@www.100ask.org:~/Downloads$
```

STEP 6:

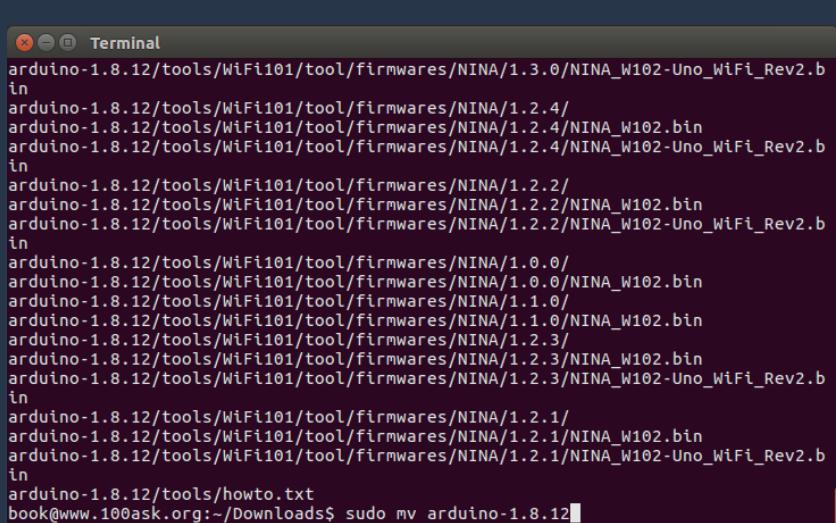
- Enter “tar xvjf arduino-1.8.12-linux64.tar.xz” to unzip the files.



```
Terminal
book@www.100ask.org:~$ cd Downloads/
book@www.100ask.org:~/Downloads$ tar xvJf arduino-1.8.12-linux64.tar.xz
```

STEP 7:

- Enter “sudo mv arduino-1.8.12 /opt” to move the unzipped files to the “opt” folder.



```
Terminal
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.3.0/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.2/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.2/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.2/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.1.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.1.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.1/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.1/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.1/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/howto.txt
book@www.100ask.org:~/Downloads$ sudo mv arduino-1.8.12
```

STEP 8:

- Enter “cd /opt/arduino-1.8.12/” to go to the arduino folder.

```
Terminal
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.4/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.2/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.2/NTNA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.2/NTNA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.1.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.1.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.1/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.1/NTNA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.1/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/howto.txt
book@www.100ask.org:~/Downloads$ sudo mv arduino-1.8.12 /opt
[sudo] password for book:
book@www.100ask.org:~/Downloads$ cd /opt/arduino-1.8.12/
```

STEP 9:

- Enter “sudo chmod +x install.sh” and “sudo chmod +x install.sh” to complete the installation.

```
Terminal
in
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.0.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.1.0/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.1.0/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.3/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NINA/1.2.1/
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.1/NTNA_W102.bin
arduino-1.8.12/tools/WiFi101/tool/firmwares/NTNA/1.2.1/NINA_W102-Uno_WiFi_Rev2.bin
arduino-1.8.12/tools/howto.txt
book@www.100ask.org:~/Downloads$ sudo mv arduino-1.8.12 /opt
[sudo] password for book:
book@www.100ask.org:~/Downloads$ cd /opt/arduino-1.8.12/
book@www.100ask.org:/opt/arduino-1.8.12$ sudo chmod +x install.sh
book@www.100ask.org:/opt/arduino-1.8.12$ sudo ./install.sh
Adding desktop shortcut, menu item and file associations for Arduino IDE...

done!
book@www.100ask.org:/opt/arduino-1.8.12$
```

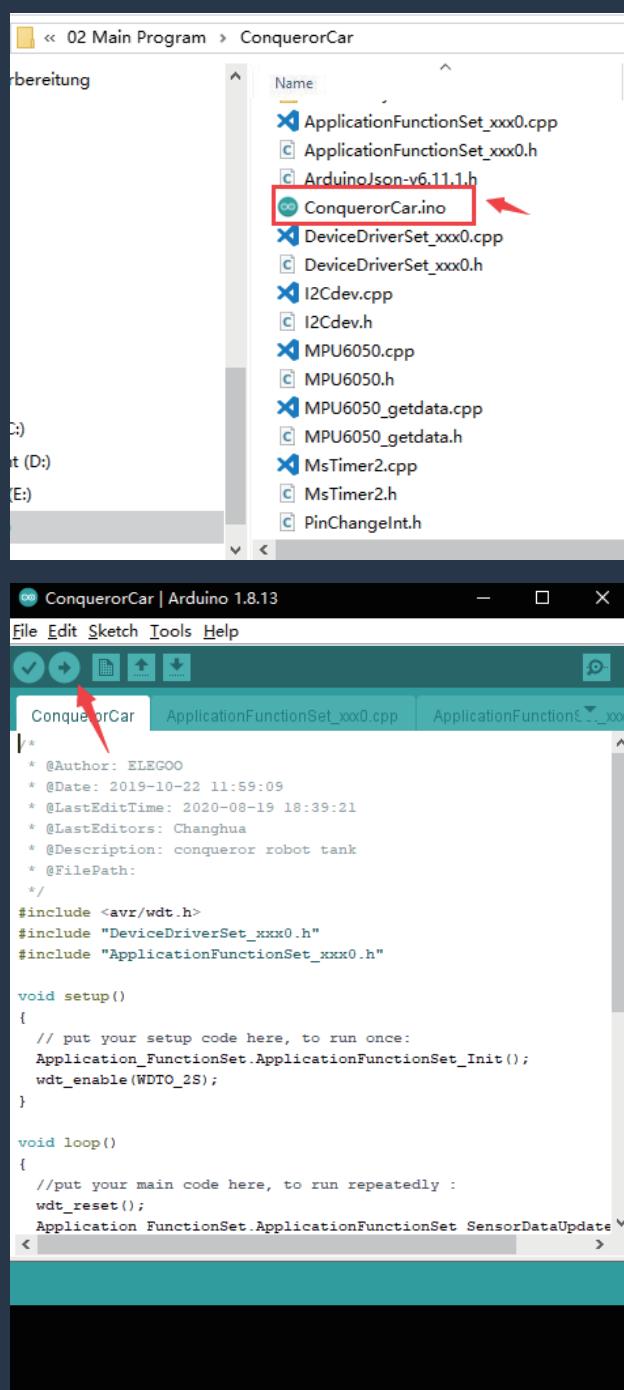


STEP 10:

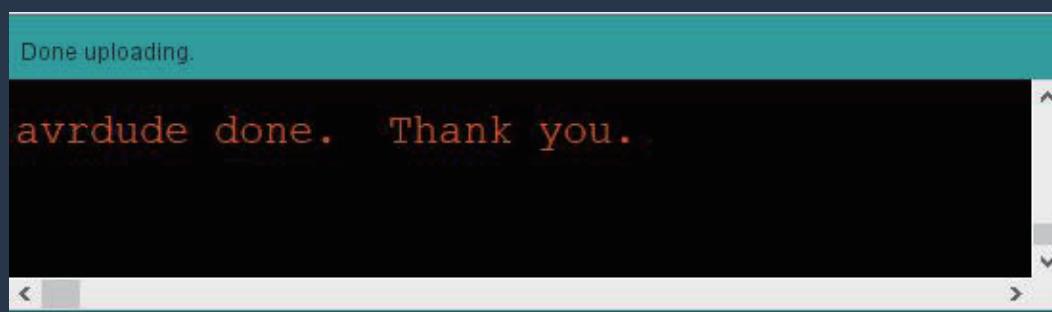
- In this step, I will show you how to upload program to the UNO controller board.

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 teal header bar containing the text "Done uploading.". Below the header, the main text area displays the message "avrduude done. Thank you." in white font on a black background. At the bottom of the window, there is a small scroll bar and a light gray footer bar.

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

ELEGOO
<http://www.elegoo.com>