

Part 1

Lesson

4

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?

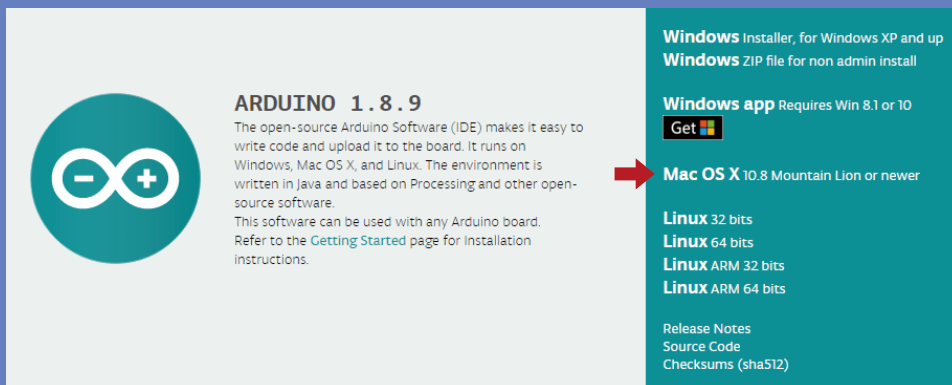
Uplaod program for MacOS

STEP 1:

- Download the Arduino Software (IDE) Open the URL:<https://www.arduino.cc/en/Main/Software> with browser.

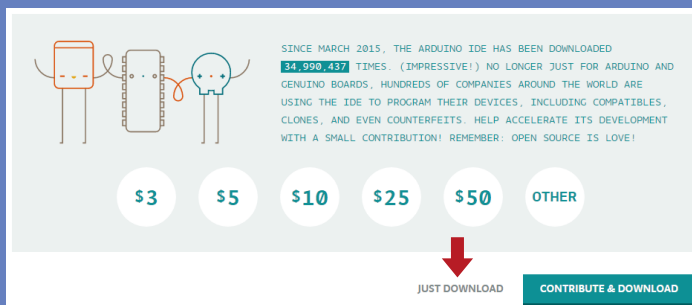
Click “Mac OSX 10.8 Lion or newer”.

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”.

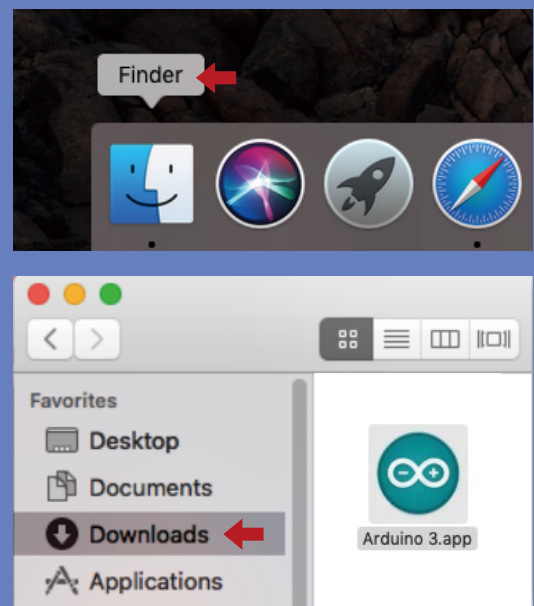


STEP 4:

- 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!

STEP 3:

- Open Finder.



Uplaud 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



ARDUINO 1.8.12

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other open-source software. This software can be used with any Arduino board. Refer to the [Getting Started](#) page for installation instructions.

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

Linux 32 bits
Linux 64 bits
Linux ARM 32 bits
Linux ARM 64 bits

[Release Notes](#)
[Source Code](#)
[Checksums \(sha512\)](#)

STEP 2:

- Click **“JUST DOWNLOAD”**.



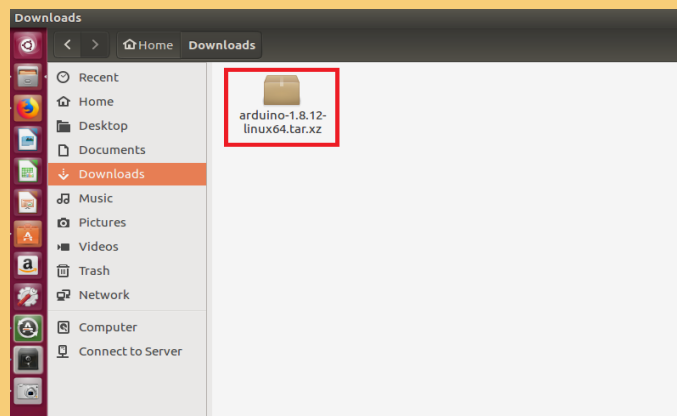
SINCE MARCH 2015, THE ARDUINO IDE HAS BEEN DOWNLOADED **40,523,101** TIMES. (IMPRESSIVE!) NO LONGER JUST FOR ARDUINO AND GENUINO BOARDS, HUNDREDS OF COMPANIES AROUND THE WORLD ARE USING THE IDE TO PROGRAM THEIR DEVICES, INCLUDING COMPATIBLES, CLONES, AND EVEN COUNTERFEITS. HELP ACCELERATE ITS DEVELOPMENT WITH A SMALL CONTRIBUTION! REMEMBER: OPEN SOURCE IS LOVE!

\$3 \$5 \$10 \$25 \$50 OTHER

JUST DOWNLOAD **CONTRIBUTE & DOWNLOAD**

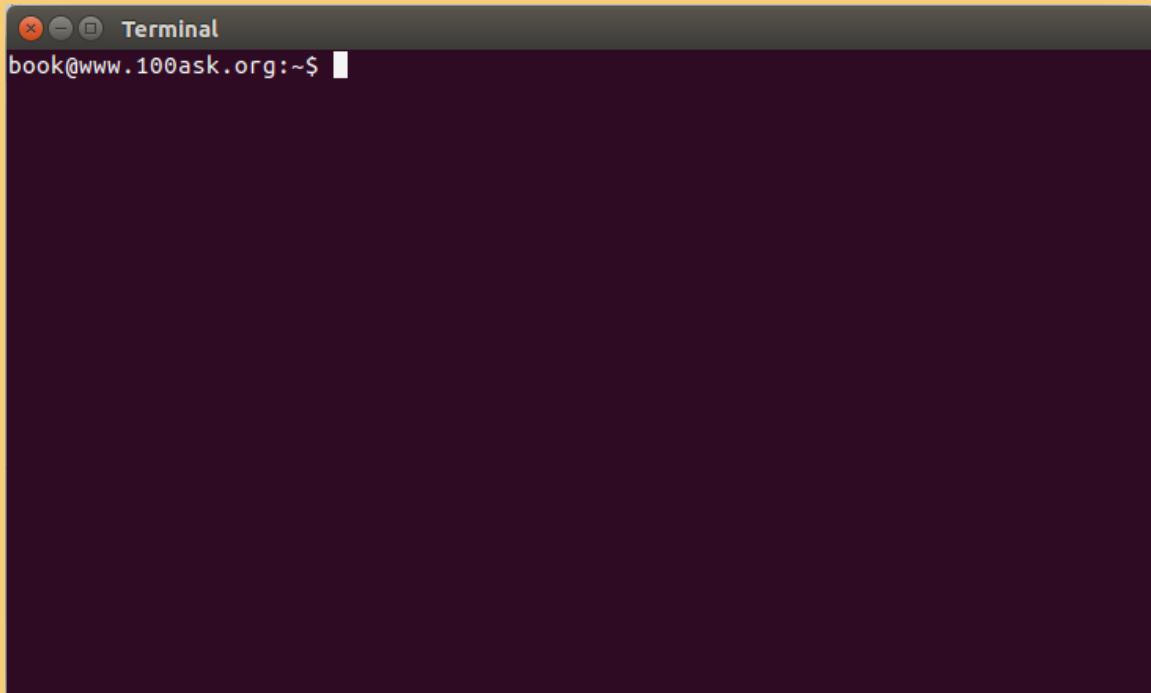
STEP 3:

- Check that the download was successful.



STEP 4:

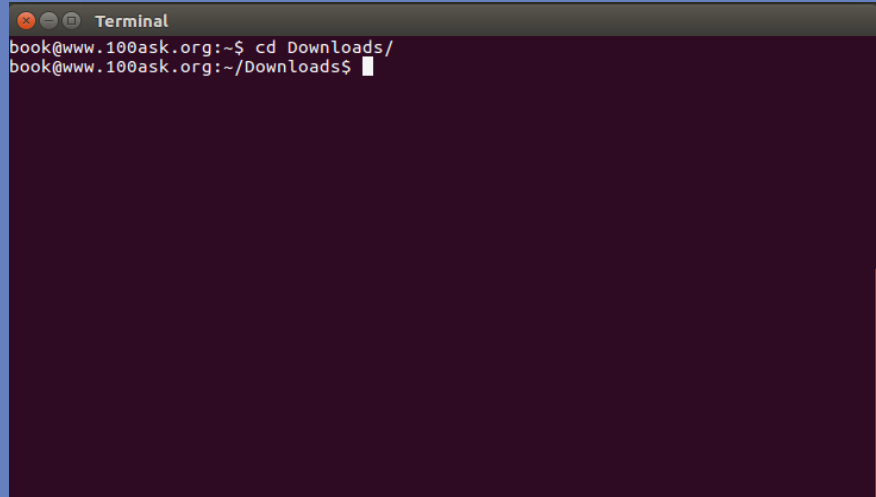
- Press “**CTRL + ALT + T**” at the same time to open the command



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

STEP 5:

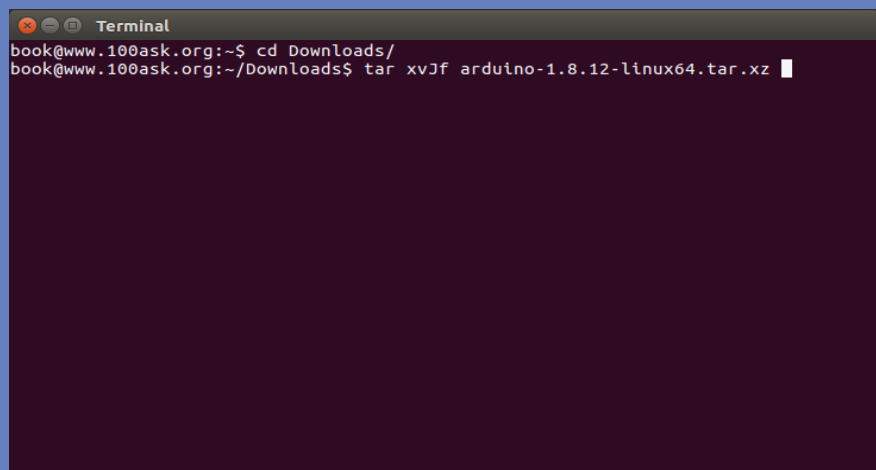
- Enter “**cd Downloads/**”.



```
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.b
in
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.b
in
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.b
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/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.b
in
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.b
in
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.b
in
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.b
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/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.b
in
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.b
in
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/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.b
in
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.b
in
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$
```

