How to Install Arduino IDE on Ubuntu

The Arduino software or IDE (Integrated Development Environment) contains a text editor that is generally used for writing, compiling and uploading code in Arduino hardware. It helps to connect and communicate with the Arduino hardware. Arduino IDE can be run on all major operating system platforms like Linux, Windows, and Mac OS. It is available for both 32-bit and 64-bit OS platforms.

In this article, we will walk through the steps for installing the Arduino IDE on Ubuntu. I will use Ubuntu 18.04 LTS for describing the procedure. However, you can use the same procedure for installation in older releases of Ubuntu.

Download Arduino Software

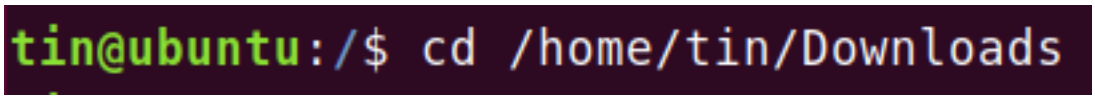
First, you will need to download Arduino IDE package from the Download page of Arduino official website. Make sure to download the right version 32-bit or 64-bit depending upon your operating system. This is the official link of Arduino IDE downloads page:

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

Install Arduino IDE

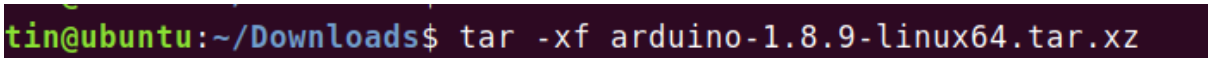
Now you will need to install the Arduino IDE. To prepare for the installation, navigate to the **Downloads** folder. You will need to uncompress the downloaded Arduino archived folder. It can be done by launching the Terminal by pressing **Ctrl+Alt+T** key combinations then running the following command to navigate to **Downloads** folder:

```
$ cd /home/username/Downloads
```



To uncompress the archived folder, run the following command in Terminal:

```
$ tar –xf [Compressed-filename]
```



Then run the following command in Terminal to navigate to the Arduino folder that you have just uncompressed:

```
$ cd [Uncompressed-foldername]
```

```
tin@ubuntu:~/Downloads$ cd arduino-1.8.9
```

You can type ls –l in Terminal to view the list of files in the Arduino folder and find out the **install.sh**installation file that we will be going to install.

```
tin@ubuntu:~/Downloads/arduino-1.8.9$ ls -l
total 13704
-rwxr-xr-x  1 tin tin      882 Mar 15 07:16 arduino
-rwxr-xr-x  1 tin tin 13877879 Mar 15 07:16 arduino-builder
-rwxr-xr-x  1 tin tin     5161 Mar 15 07:16 arduino-linux-setup.sh
drwxr-xr-x 13 tin tin     4096 Mar 15 07:15 examples
drwxr-xr-x  4 tin tin     4096 Mar 15 07:16 hardware
-rwxr-xr-x  1 tin tin    10786 Mar 15 07:16 install.sh
drwxr-xr-x  6 tin tin     4096 Oct  6  2018 java
drwxr-xr-x  4 tin tin     4096 Mar 15 07:16 lib
drwxr-xr-x 21 tin tin     4096 Mar 15 07:15 libraries
drwxr-xr-x  6 tin tin     4096 Mar 15 07:15 reference
-rw-r--r--  1 tin tin    88826 Mar 15 07:15 revisions.txt
drwxr-xr-x  4 tin tin     4096 Mar 15 07:16 tools
drwxr-xr-x  4 tin tin     4096 Mar  7 02:10 tools-builder
-rwxr-xr-x  1 tin tin       86 Mar 15 07:16 uninstall.sh
```

Now we are prepared for installing Arduino. Run the following command in Terminal as sudo to install Arduino.

```
$ sudo ./install.sh
```

Wait for a while until the installation completes.

```
tin@ubuntu:~/Downloads/arduino-1.8.9$ sudo ./install.sh
[sudo] password for tin:
Adding desktop shortcut, menu item and file associations for Arduino IDE...
rm: cannot remove '/usr/local/bin/arduino': No such file or directory
Removing symlink failed. Hope that's OK. If not then rerun as root with sudo.

rm: cannot remove '/usr/local/bin/arduino': No such file or directory
Removing symlink failed. Hope that's OK. If not then rerun as root with sudo.

 done!
```

Verify the Arduino installation

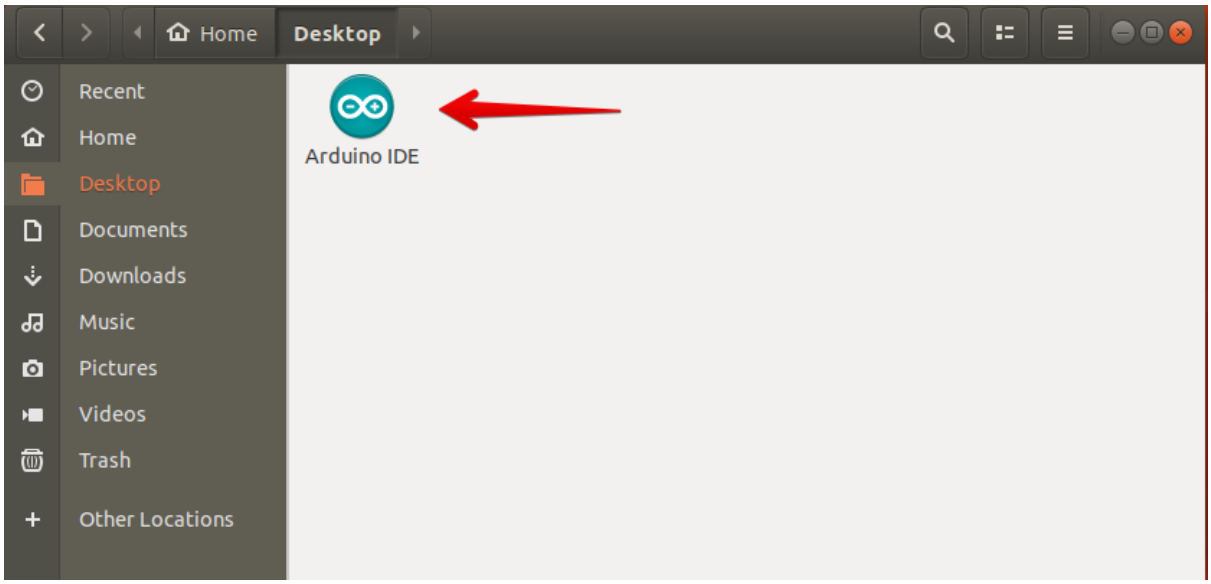
When the installation completes, look for Arduino IDE icon on Desktop. If it is there, your installation is completed. However, in some cases, you may notice a shortcut of Arduino IDE but not a proper icon and when you will try to open; it will not launch the application.

There is a way to get around that by running the below command as sudo in Terminal. It will change the ownership of the Arduino file on the desktop:

```
$ sudo chown [username] [path/to/file]
```

```
tin@ubuntu:~/Downloads/arduino-1.8.9$ sudo chown tin /home/tin/Desktop/arduino-arduinoide.desktop
```

After running the above command, you will notice the proper Arduino icon on Desktop as shown in the below image.



You can also verify if the Arduino application has successfully installed, launch it via Desktop icon, Ubuntu Dash menu or from Application Launcher.

That was the simplest method using which you could install Arduino IDE on Ubuntu 18.04 LTS. Now you can configure and integrate it with your Arduino hardware.

Setting permission to access serial ports:

```
$ sudo usermod -a -G dialout $USER
```

```
$ sudo chmod a+rw /dev/ttyACM0
```