

# Arduino IDE installation and configuration guide

## Note

In the following sections you'll find guides for Windows, macOS and most known GNU/Linux distros (we recommend it).

You can start with Ubuntu (<https://www.ubuntu.com>), it's a pretty easy one. The hard thing about the switch is getting used to the new OS. We recommend the latest one. You need the following things to get started:

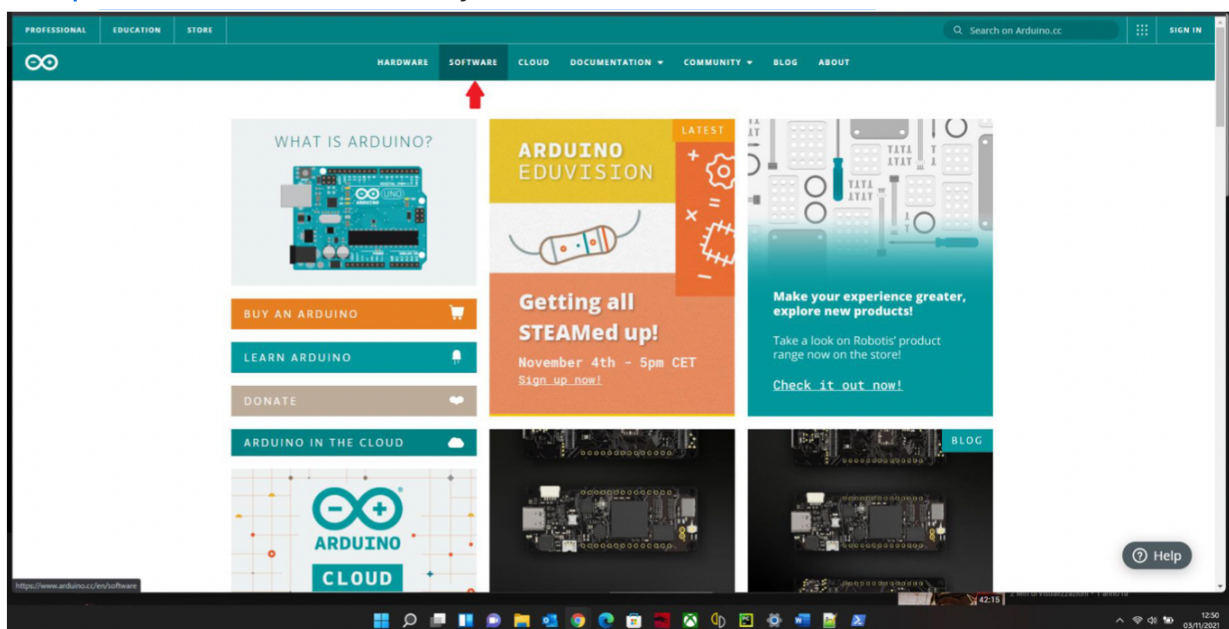
- Preparing an USB stick ([Create a bootable USB stick on Windows | Ubuntu](#))
- Installing Ubuntu (<https://tutorials.ubuntu.com/tutorial/tutorial-install-ubuntu-desktop>)

## Synopsis

In this guide you'll understand how to install Arduino IDE, an open source platform used to develop and load instructions on compatible boards. We'll use the ESP32 during this workshop

## Windows

Go to "<https://www.arduino.cc/>" from your browser and click on "Software":



In the "Downloads" section, choose "Windows 7 and newer" as shown in the image. DO NOT select "Windows 8.1 or 10" even if you have one of those versions.



**Arduino IDE 1.8.16**

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**

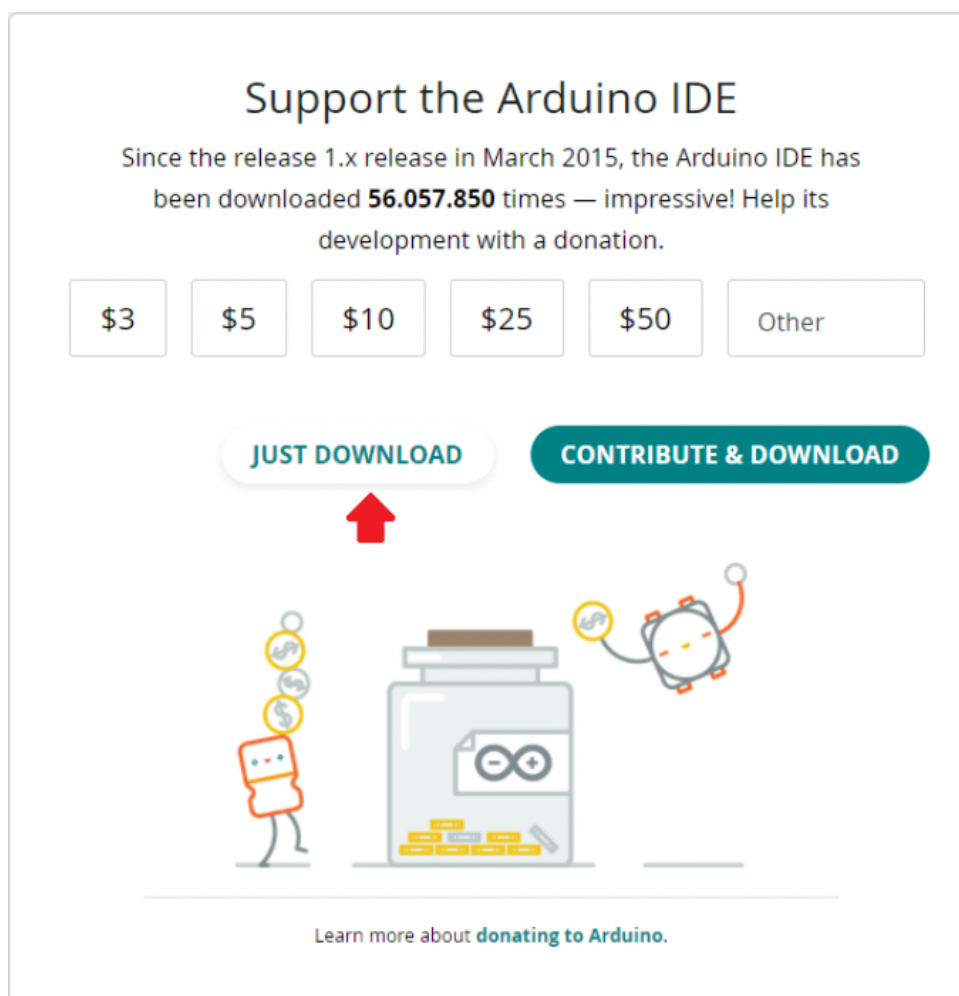
Active development of the Arduino software is [hosted by GitHub](#). See the instructions for [building the code](#). Latest release source code archives are available [here](#). The archives are PGP-signed so they can be verified using [this](#) gpg key.

**DOWNLOAD OPTIONS**

- Windows** Win 7 and newer 
- Windows** ZIP file
- Windows app** Win 8.1 or 10 
- Linux** 32 bits
- Linux** 64 bits
- Linux** ARM 32 bits
- Linux** ARM 64 bits
- Mac OS X** 10.10 or newer

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

Now select "Just Download" if you don't wanna support the project; select the other option otherwise




**Support the Arduino IDE**

Since the release 1.x release in March 2015, the Arduino IDE has been downloaded **56.057.850** times — impressive! Help its development with a donation.

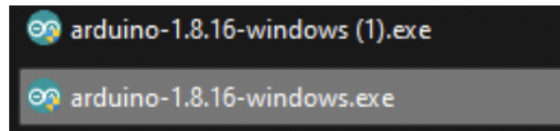
[\\$3](#) [\\$5](#) [\\$10](#) [\\$25](#) [\\$50](#) [Other](#)

[JUST DOWNLOAD](#) [CONTRIBUTE & DOWNLOAD](#)



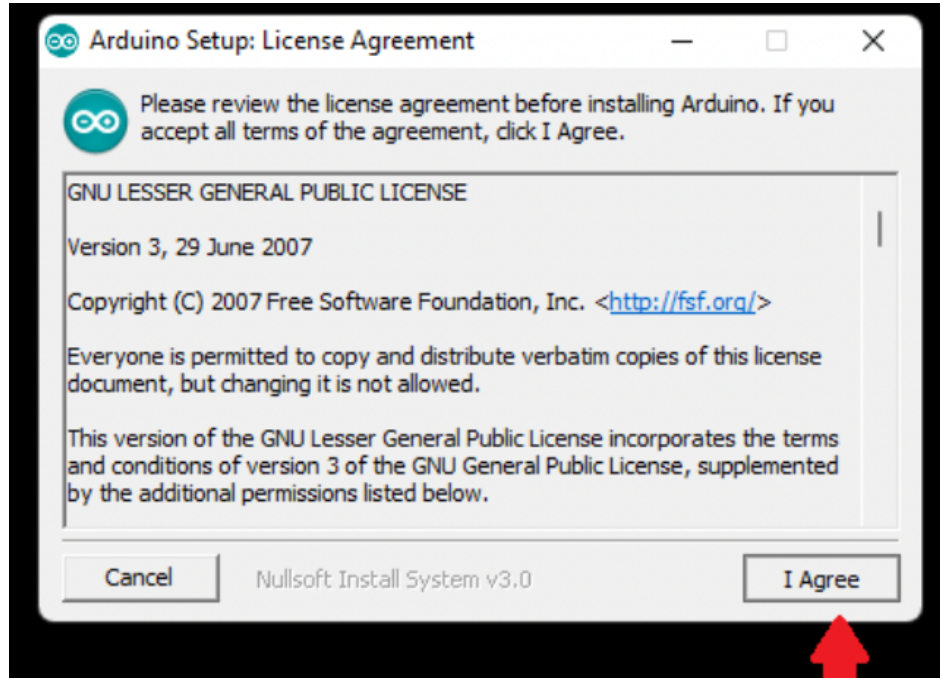
[Learn more about donating to Arduino.](#)

If the browser asks for it, select the download folder (if you don't know where the folder is, click Win+R and type "C:\Users[username]\Downloads", where [username] is your username) and open the executable file

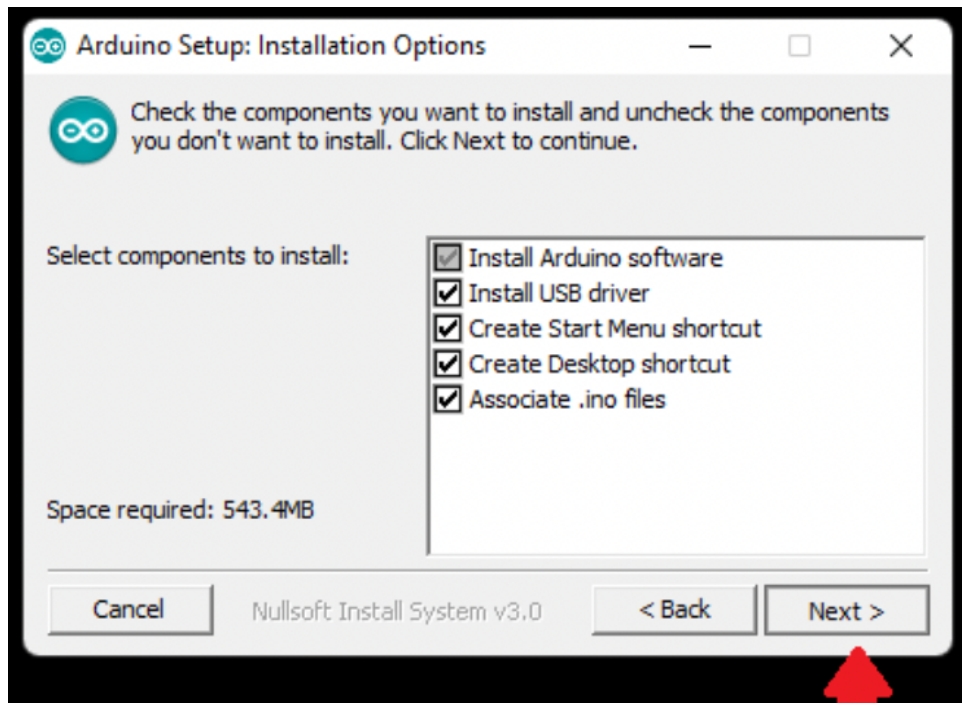


Now the installation procedure has started:

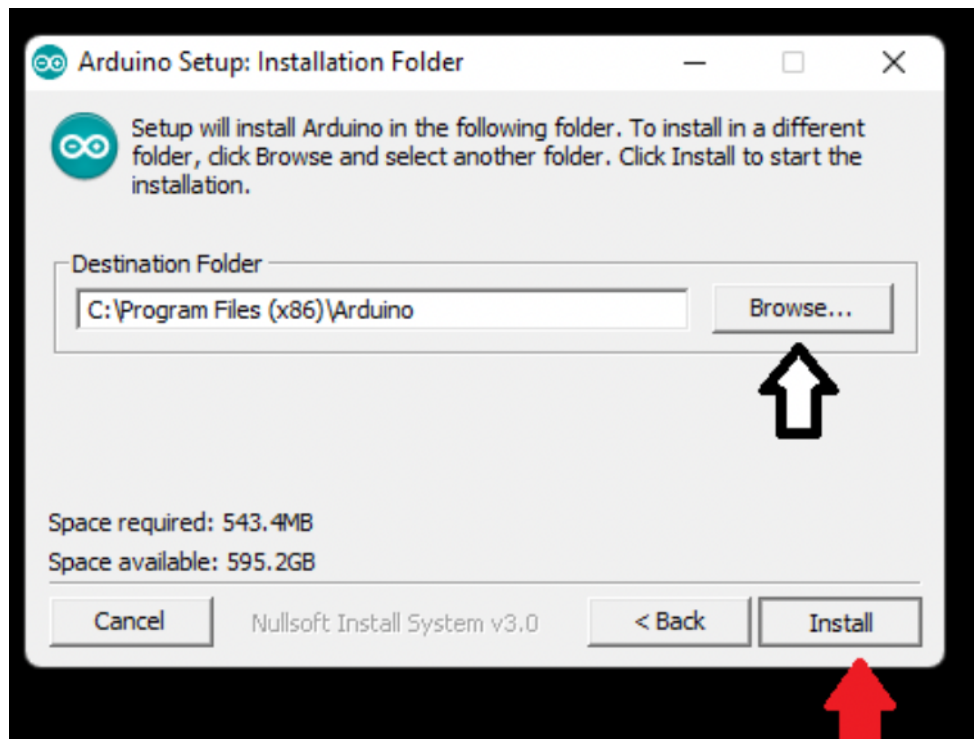
- Accept the terms & conditions and click on "I Agree":



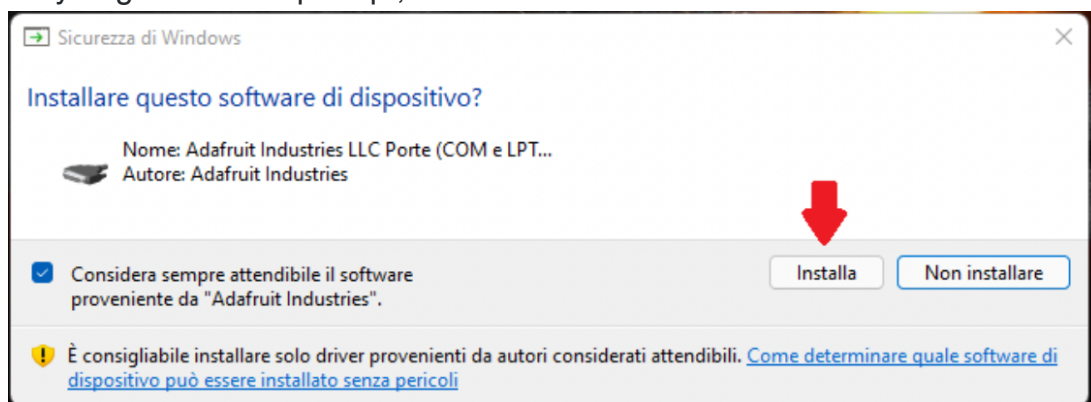
- Make sure that all the boxes are ticked and click on "Next":



- Select the installation path (don't do it if you don't know what you are doing). Click on "Install" and wait for it to end:



- Everytime you get a similar prompt, click on "Install":



- Now you should have on the desktop a shortcut of "Arduino IDE"

## GNU/Linux

Arduino IDE requires some dependencies. Here are listed the commands needed in order to install them

### Installation based on distro

Note: always say "yes" to every prompt

**Debian-based (Ubuntu,Pop!\_OS, Debian, Linux Mint, etc.)**

```
sudo apt update
sudo apt install python3
sudo pip install pyserial
sudo apt install arduino
```

## Arch-based (Arch Linux, Manjaro)

```
sudo pacman -Syu python
sudo pip install pyserial
sudo pacman -S arduino
```

## Fedora

```
sudo dnf install python3
sudo pip install pyserial
sudo dnf install arduino
```

## CentOS

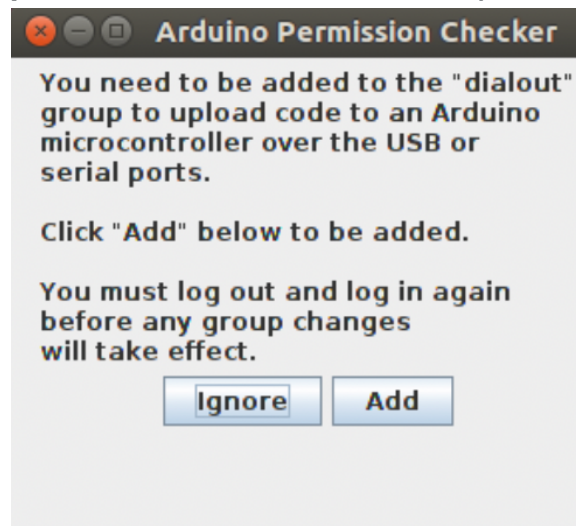
```
yum install centos-release-scl
yum install rh-python36
scl enable rh-python36 bash
sudo yum install epel-release
sudo yum install snapd
#Riavviare il sistema per accertarsi che snap sia installato correttamente sudo
pip install pyserial
sudo snap install arduino
```

## Red Hat

```
sudo rpm -ivh https://dl.fedoraproject.org/pub/epel/epel-release-
latest7.noarch.rpm
sudo subscription-manager repos --enable "rhel-*-optional-rpms" --enable"rhel-
*-extras-rpms"
sudo yum update
sudo yum install snapd #Riavviare il sistema
yum install centos-release-scl
yum install rh-python36
scl enable rh-python36 bash
sudo pip install pyserial
sudo snap install arduino
```

## Serial communication permissions

Debian-based (Ubuntu, Pop!\_OS, Debian, Linux Mint, etc.)



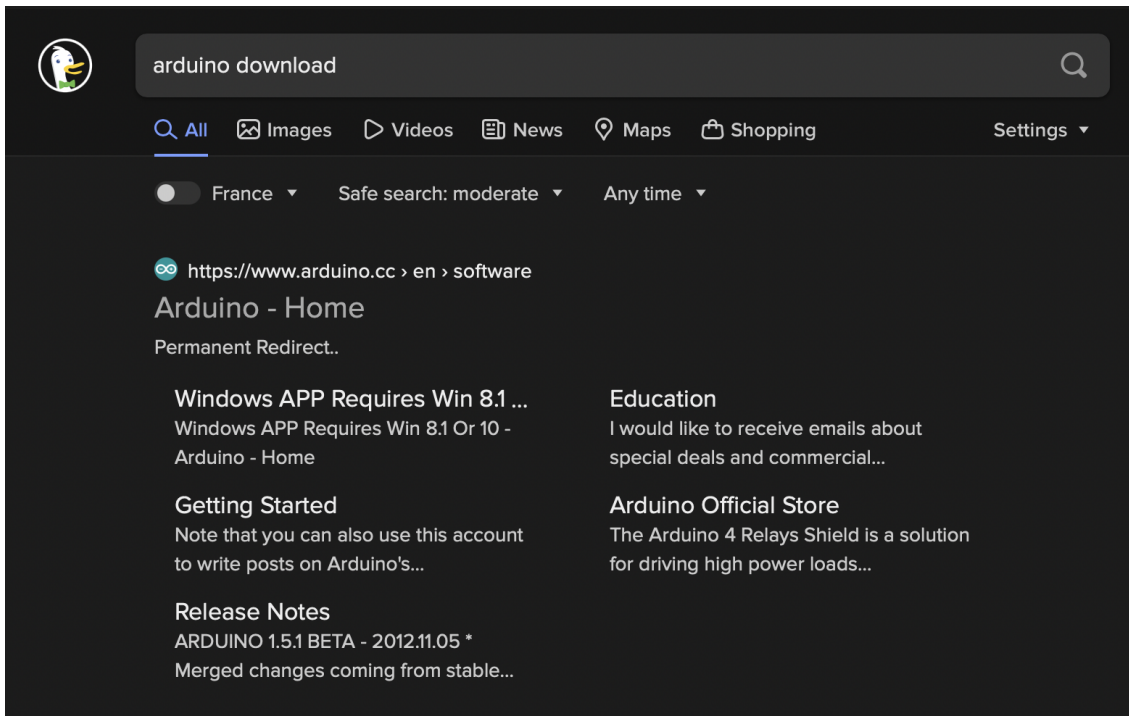
Arch-based (Arch Linux, Manjaro)

```
sudo usermod -aG uucp [username]  
#sostituire a [username] il vostro username
```



## macOS

Lookup on your browser "Arduino Downloads" and click on the first link. Look for "Mac OS X" near "Hourly builds" (even if you have M1).



## Hourly Builds

Download a **preview of the incoming release** with the most updated features and bugfixes.

### DOWNLOAD OPTIONS

**Windows**

**Mac OS X** 10.10 or newer

Linux: **32 bits**, **64 bits**, **ARM**, **ARM64**

**LAST UPDATE:** 08 Apr 2021, 14:37:23 GMT

Now select "Just Download" if you don't wanna support the project; select the other option otherwise.

# Support the Arduino IDE

Since the release 1.x release in March 2015, the Arduino IDE has been downloaded **56,218,235** times — impressive! Help its development with a donation.

\$3

\$5

\$10

\$25

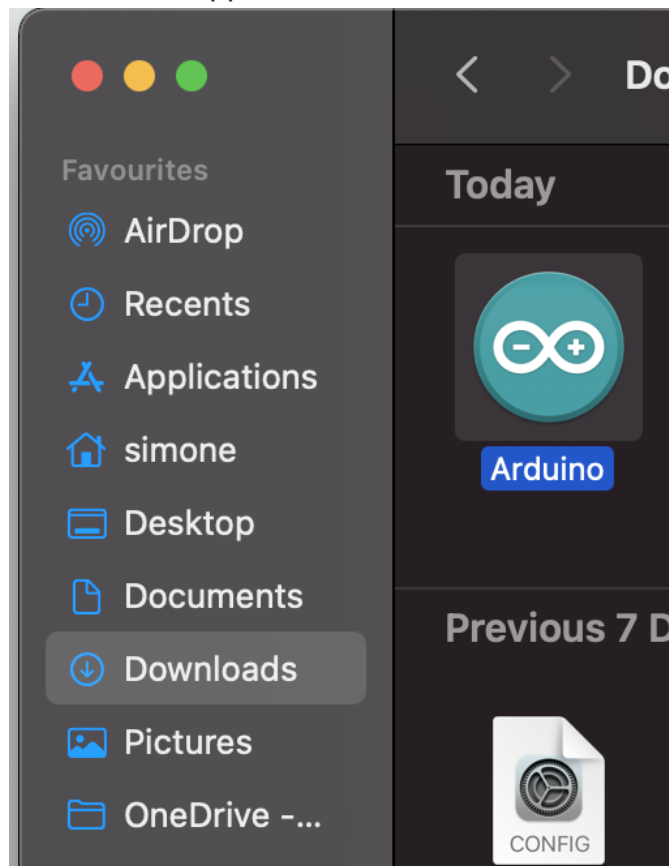
\$50

Other

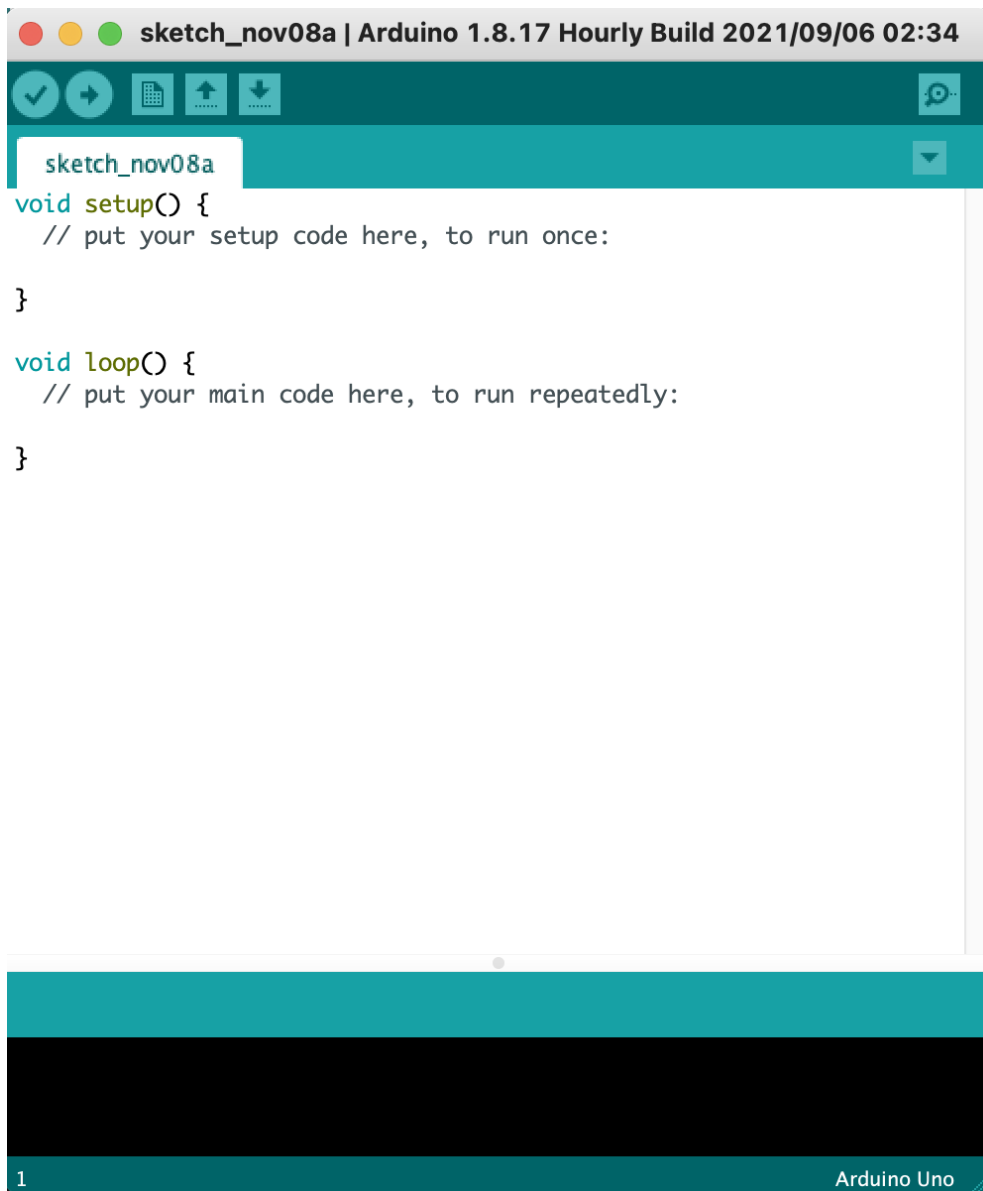
[JUST DOWNLOAD](#)

[CONTRIBUTE & DOWNLOAD](#)

Wait for a bit and drag the file inside "Applications" once downloaded



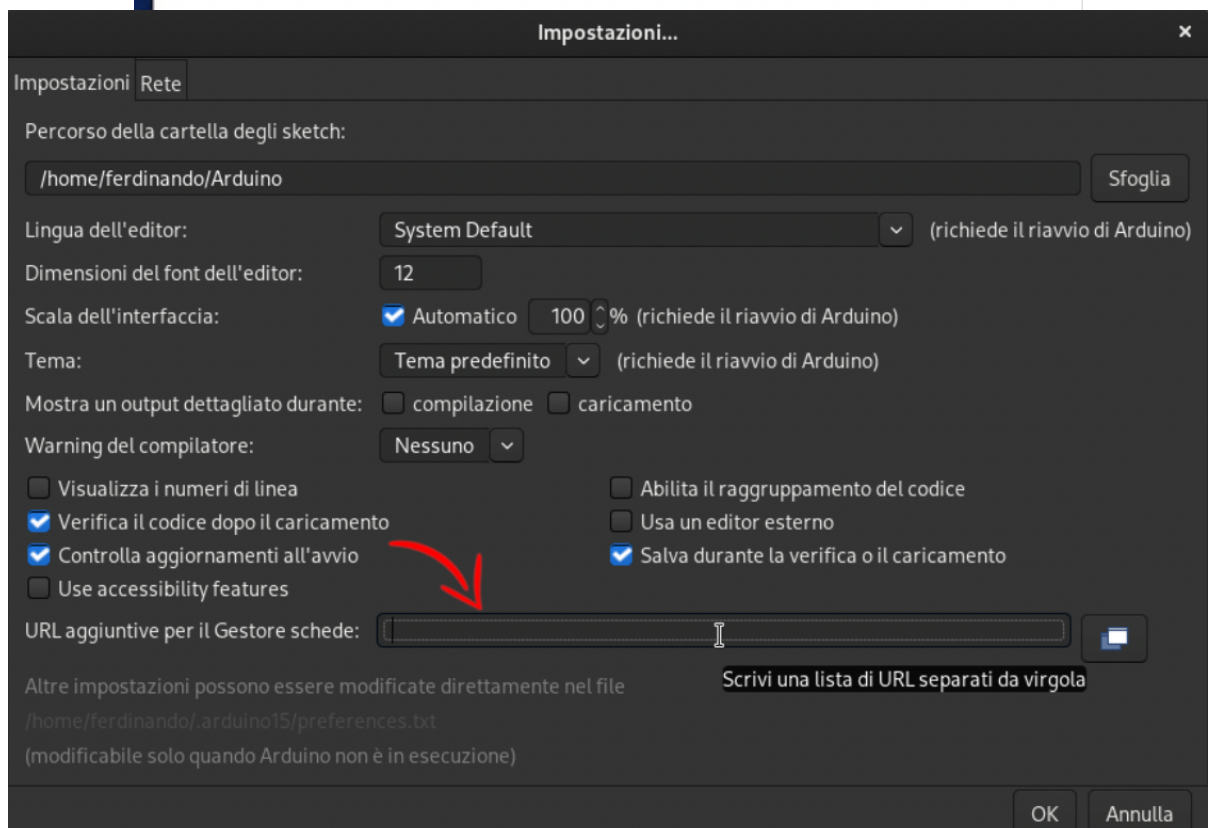
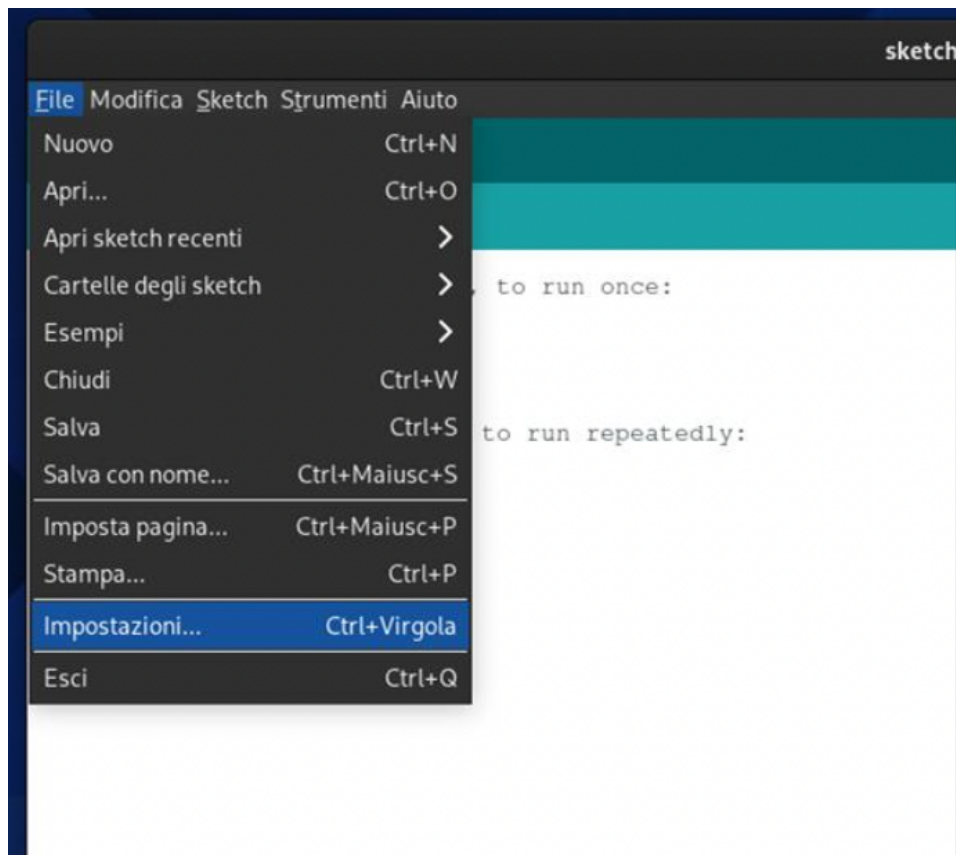
Now you have correctly installed Arduino IDE!



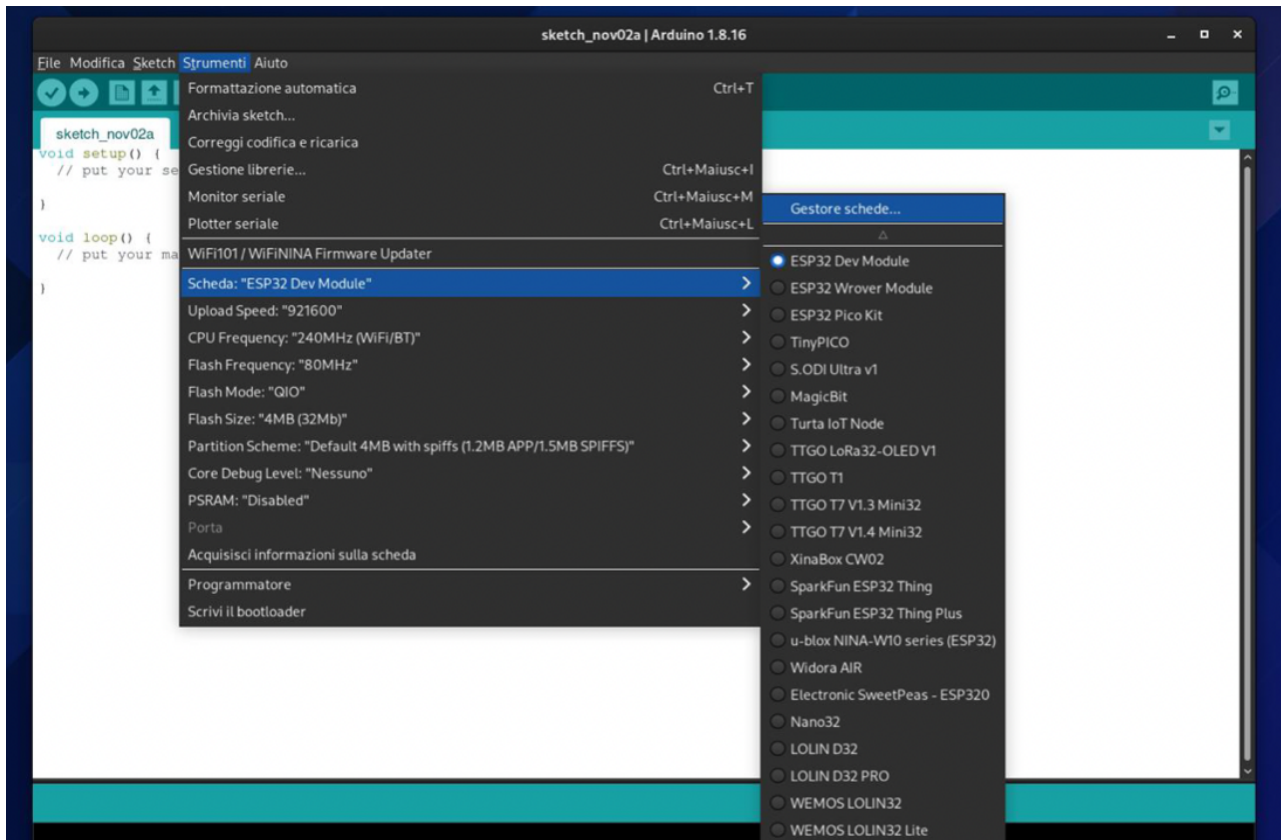
## Additional support for ESP32 (for all OS)

Open Arduino IDE and go to "File"->"Settings". Copy

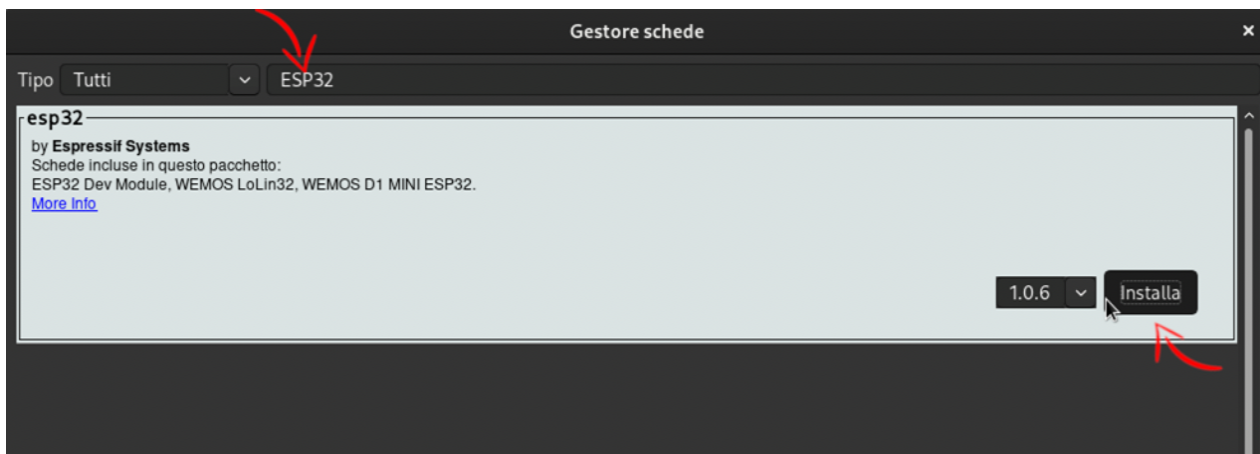
[https://dl.espressif.com/dl/package\\_esp32\\_index.json](https://dl.espressif.com/dl/package_esp32_index.json) and paste it like so:



Click on "OK" and go to "Tools"->"Boards"->"Boards Manager" like so:

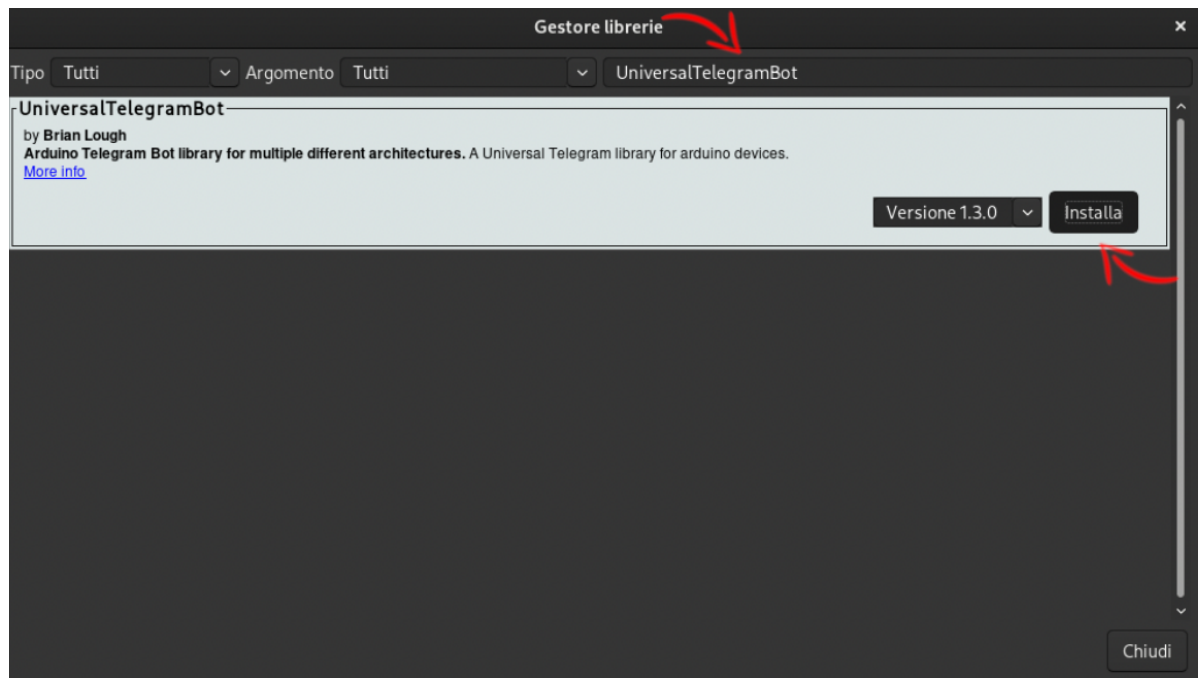


Look for "ESP32" and install it:

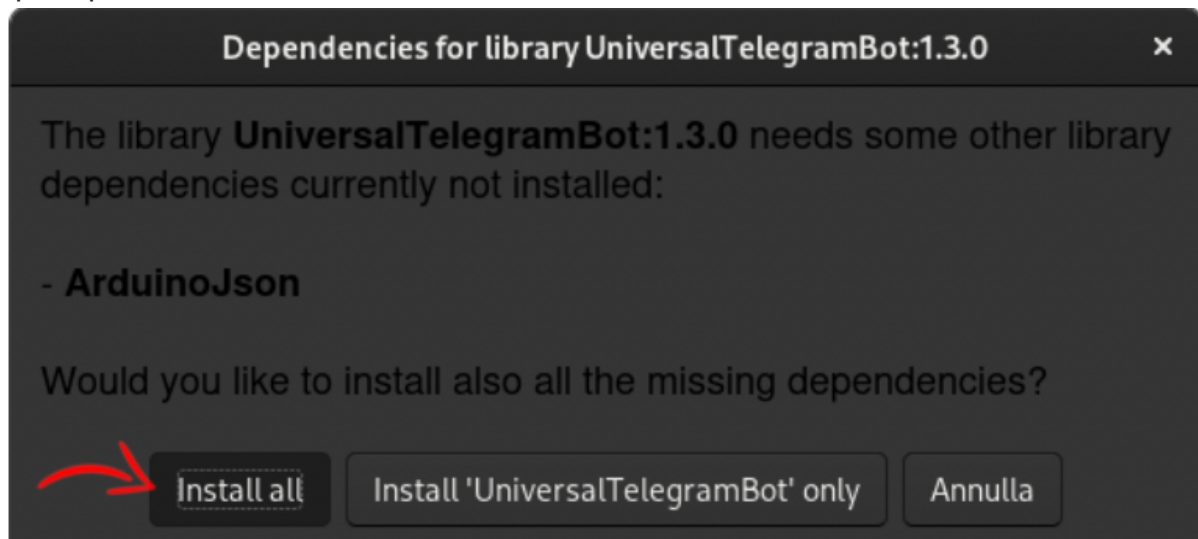


## Telegram support library (all OS)

Go to "Tools"->"Manage Libraries"; look for "UniversalTelegramBot" and install it:



When prompted click on "Install all":



Now you're done and ready to go!