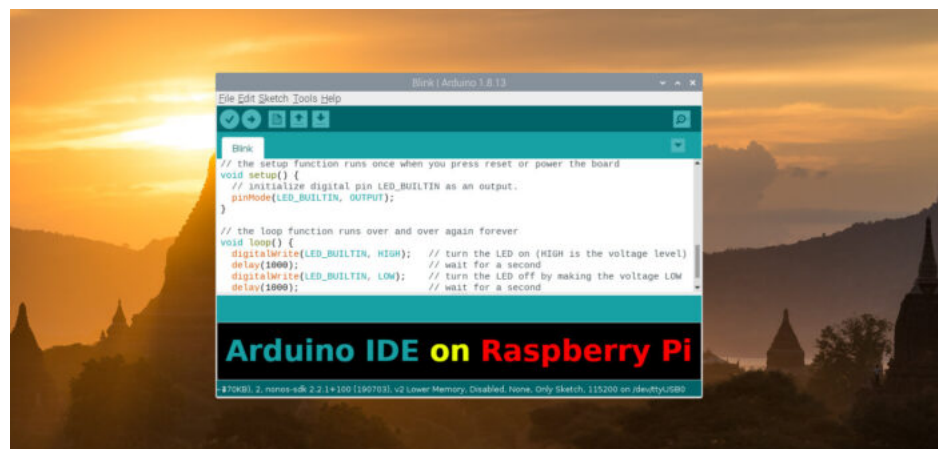


Install Arduino IDE on Raspberry Pi

2

BY MATT ON DECEMBER 28, 2020

GENERAL



The Arduino IDE is a vital tool for flashing Arduino devices. You can install Arduino IDE on Raspberry Pi OS using these easy steps.

You could use apt:

```
sudo apt install arduino
```

but this results in the installation of Arduino IDE version 1.6. This is an extremely outdated version which makes it difficult to use or impossible to flash certain devices.

So I recommend manually installing the Arduino IDE using the software available from the official Arduino site.

I'm assuming you have a working installation of a recent [Raspberry Pi OS](#) image.

Download Arduino IDE Software

Search ...

Search

RECENT POSTS



FEBRUARY 26, 2022

0

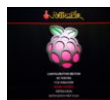
Disable Auto-login in Raspberry Pi OS



FEBRUARY 2, 2022

0

Raspberry Pi Cloud Storage with MEGA



JANUARY 7, 2022

0

RetroPie Temperature Monitor from Menu



JANUARY 24, 2021

0

Pi Pico Pinout and Power Pins



DECEMBER 28, 2020

2

Install Arduino IDE on Raspberry Pi

Systems Engineering Program

Architecture & Systems Engineering - Online MIT xPRO Program starts soon. Register today.

MIT xPRO

Then click on the download labelled “Linux ARM 32 bits”. This should download a file that is named something like this “arduino-####-linuxarm.tar.xz” where #### is the version number.

Version Number

In the commands that follow you **will** need to replace #### with the version number. At the time of writing the version number is “1.8.13”.

Install Arduino IDE

Open a terminal window and ensure you are in the home directory:

```
cd ~
```

Navigate to the Downloads folder:

```
cd Downloads
```

List the files in the Downloads folder using:

```
ls
```

You should see the Arduino IDE archive:

```
arduino-####-linuxarm.tar.xz
```

Note the version number.

Extract the contents of the downloaded file:

```
tar -xf arduino-####-linuxarm.tar.xz
```

This should create a folder named “arduino-####” full of files.

Move the folder to /opt using:

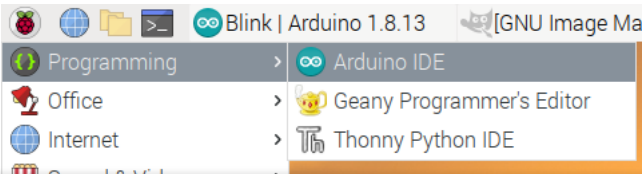
```
sudo mv arduino-#### /opt
```

Finally complete the installation by running:

```
sudo /opt/arduino-####/install.sh
```

Running Arduino IDE

The installation process adds an entry into the Raspberry Pi OS menu. You can find the Arduino IDE entry under the “Programming” heading.



- 1-wire
- 3D Printing
- Add-ons
- BBC Micro:bit
- BerryClip
- Books
- Camera Module
- Cases
- Events
- General
- Hardware
- I2C
- Infographics
- Interfaces
- Minecraft
- Model A+
- Model B+
- News
- Pi Models
- Pi Zero
- Power
- Programming
- Python
- Raspberry Pi OS
- Raspbian
- RetroGaming
- Robotics
- Sensors
- Software
- SPI
- Tutorials & Help

TAGS

3D Printing

Arduino

audio

battery

berryclip

Birthday

bluetooth

cambridge

camera

CamJam

DigiMakers

display

games

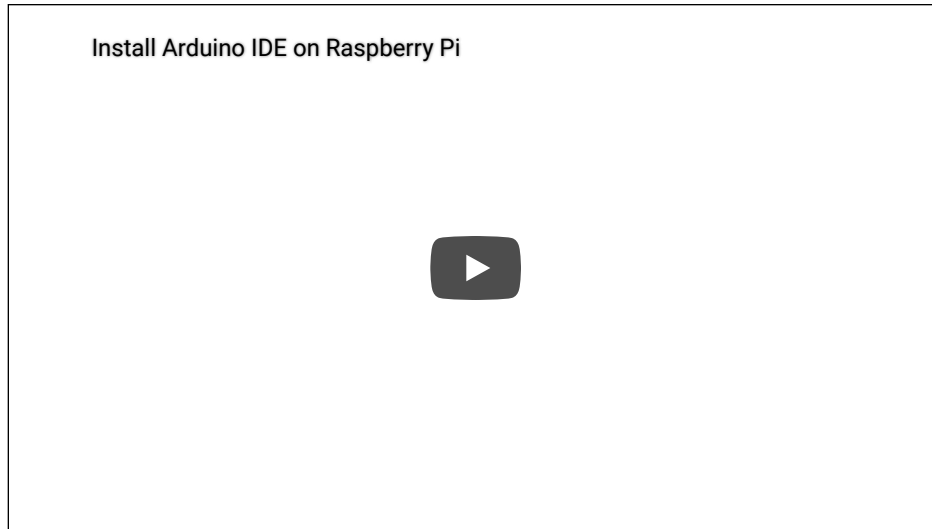
GPIO

Systems Engineering Program

Architecture & Systems Engineering - Online MIT xPRO Program starts soon.
Register today.
MIT xPRO

Video How-To

The Arduino IDE installation process is covered in this video:



Adding Support for ESP8266 Boards (optional)

One reason for manually installing the Arduino IDE is that version 1.6 doesn't allow adding support for additional devices. With the latest version we can add support for the ESP8266 family of boards.

In order to flash 8266 devices you can add a URL to the boards manager.

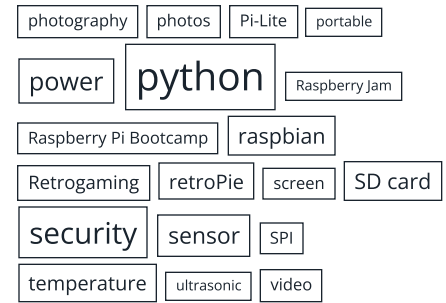
Select "Preferences" under the "File" menu:

In the "Additional Boards Manager URLs" paste in the following URL:

https://arduino.esp8266.com/stable/package_esp8266com_index.json

Click "OK" to complete the change.

Now under the "Tools" menu select "Board" followed by "Boards Manager".



RASPBERRY PI RELATED

[Adafruit Blog](#)

[Average Maker](#)

[Official RaspBerry Pi Site](#)

[Raspberry Pi Pod](#)

[RasPi.tv](#)

[RaspTut](#)

[Stuff About Code](#)

TECH RESOURCES

[MattsBits - Pi Resources](#)

[Microbit Spy](#)

[Technology Spy](#)

ARCHIVES

Select Month ▼

Systems Engineering Program

Architecture & Systems Engineering - Online MIT xPRO Program starts soon.
Register today.

MIT xPRO

Under Tools > Board you should now have an entry for "ESP8266 Boards" containing a collection of ESP8266 based boards to choose from.

SHARE.



◀ PREVIOUS ARTICLE

Raspberry Pi 400 SSD Upgrade

NEXT ARTICLE ▶

Pi Pico Pinout and Power Pins

RELATED POSTS

NOVEMBER 13, 2019

1

| Nttablet an Open-source Tablet

APRIL 11, 2018

13

| Cheap SD Cards from eBay are Fake

FEBRUARY 6, 2018

1

| Raspberry Pi TV and Film Appearances

JANUARY 14, 2018

2

| Ultimate Raspberry Pi Alexa Skill

OCTOBER 31, 2017

0

| Halloween Pumpkin with Servo Controlled Eyes

JANUARY 6, 2017

2

| Access your Raspberry Pi Remotely using Dataplicity

NOVEMBER 22, 2015

1

| Raspberry Pi microSD Card Shoot-out

DECEMBER 8, 2014

0

| Pi Wars – Saturday 6th December 2014

SEPTEMBER 19, 2014

108

| Top 5 Reasons The Raspberry Pi Sucks

2 COMMENTS

TICE REX on JANUARY 4, 2021 2:34 PM

Thank you for the detailed description.

It's possible to install the Arduino IDE in portable mode also, see the instructions here:

<https://www.arduino.cc/en/Guide/PortableIDE>

REPLY >

BRUCE PLOETZ on JUNE 4, 2021 8:09 PM

Excellent tutorial. For 64 bit PI you just have to use the ARM 64 bit download instead, everything else works the same.

REPLY >



Systems Engineering Program

Architecture & Systems Engineering - Online MIT xPRO Program starts soon. Register today.

MIT xPRO

Your Comment

Your Name

Your Email

Your Website

☐ Save my name, email, and website in this browser for the next time I comment.

POST COMMENT

This site uses Akismet to reduce spam. [Learn how your comment data is processed.](#)

ABOUT

Unofficial site devoted to the Raspberry Pi credit card sized computer offering tutorials, guides, resources, scripts and downloads. We hope to help everyone get the most out of their Pi by providing clear, simple articles on configuring, programming and operating it.

POPULAR POSTS

SEPTEMBER 19, 2014  108

Top 5 Reasons The Raspberry Pi Sucks

JULY 27, 2012  102

16x2 LCD Module Control Using Python


OCTOBER 20, 2013  100

Analogue Sensors On The Raspberry Pi Using An MCP3008

RECENT POSTS

FEBRUARY 26, 2022  0

Disable Auto-login in Raspberry Pi OS

FEBRUARY 2, 2022  0

Raspberry Pi Cloud Storage with MEGA

JANUARY 7, 2022  0

RetroPie Temperature Monitor from Menu

[Entries RSS](#) | [Comments RSS](#)

This site is not associated with the official [raspberrypi.org](https://www.raspberrypi.org) site or the Raspberry Pi Foundation. Raspberry Pi is a trademark of the Raspberry Pi Foundation.

Copyright © 2021 - All Rights Reserved - Matt Hawkins



Systems Engineering Program

Architecture & Systems Engineering - Online MIT xPRO Program starts soon. Register today.

MIT xPRO