



Arch Linux on the Framework Laptop 16

How to install Arch Linux on a Framework Laptop 16

Written By: Matt Hartley



INTRODUCTION

Once you have your Framework Laptop 16 set up following the [Quick Start Guide](#), you're ready to install your preferred OS. With the latest release of Arch Linux, everything works pretty smoothly. You can check our [Linux page](#) for additional Linux compatibility notes.

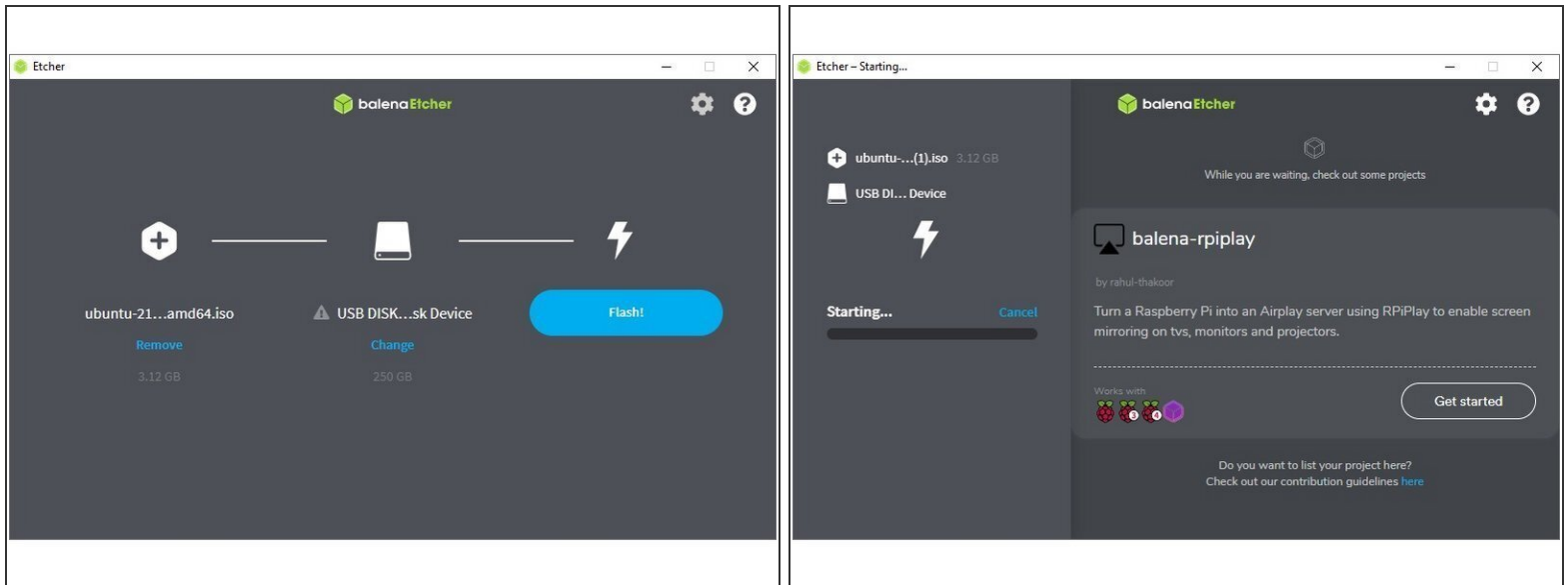
NOTE: This is a [Compatible Community Supported Linux Distribution](#). [Learn more here](#).



PARTS:

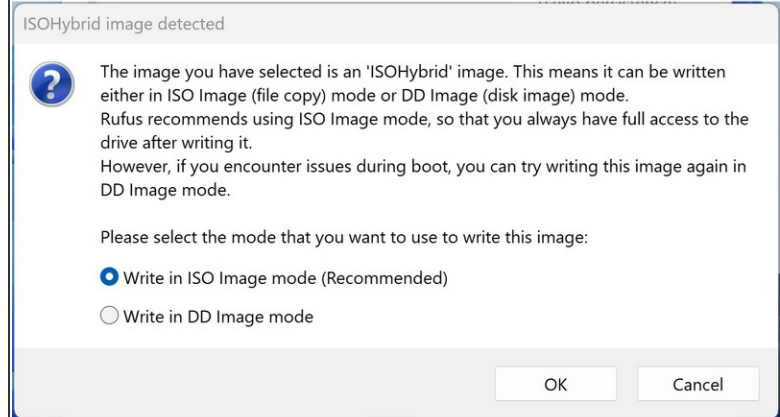
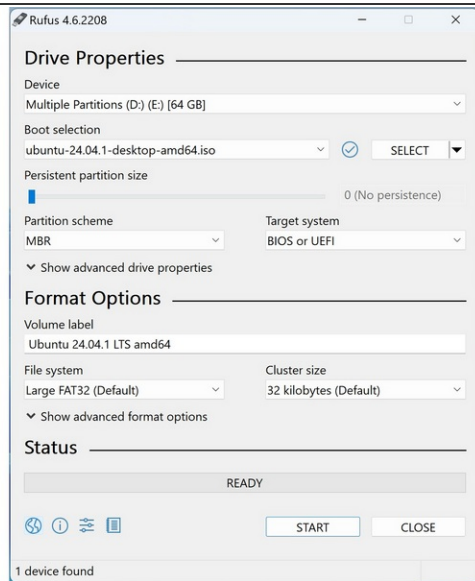
- [Storage Expansion Card](#) (1)
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Step 1 — (From macOS) Preparing USB Arch Linux Installation Media



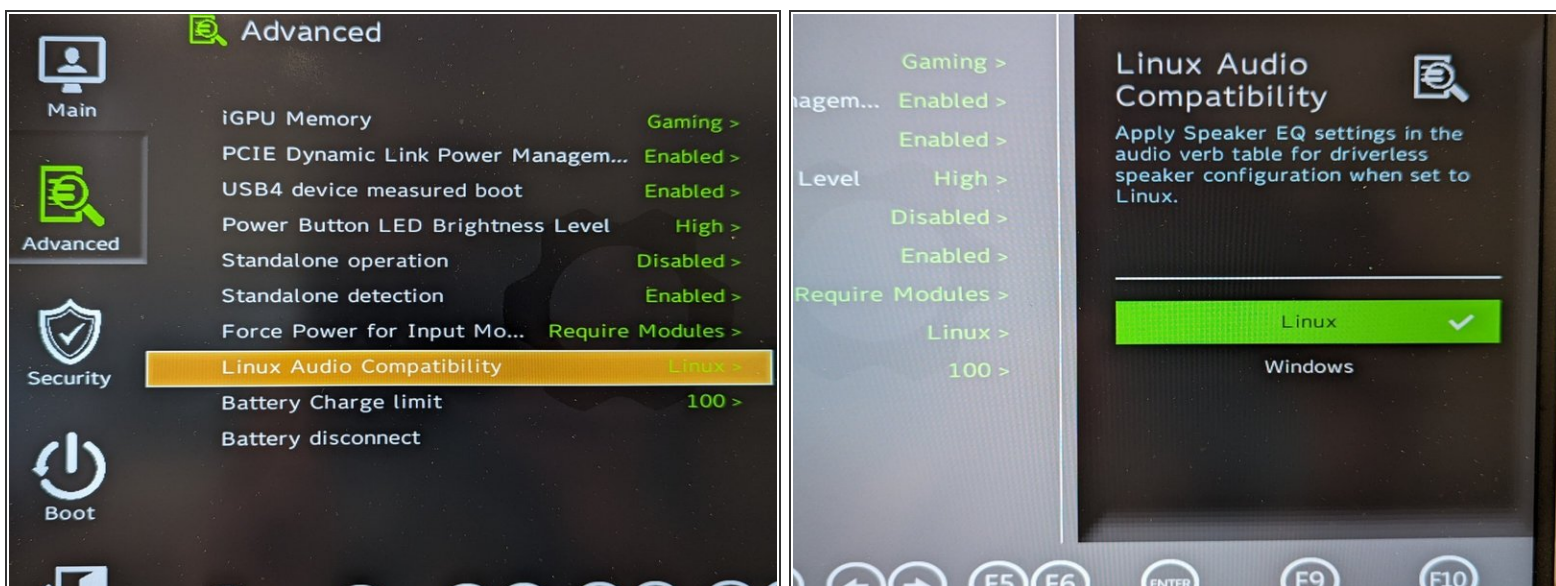
- First, download [Arch Linux](#) from Arch's website. Arch Linux has [a detailed installation guide](#) that you can follow. We'll go through the steps in this Guide assuming you have a simple installation scenario of a fresh install on a blank drive.
- Download [balenaEtcher](#) as a tool to create the USB installer from the ISO. balenaEtcher is available for MacOS. Install it.
- Launch balenaEtcher. Insert your USB drive (8GB or larger). Click on "Flash from file" and select the Arch Linux iso that you downloaded. Click on "Select target" and choose your USB drive. Click "Flash" and wait a minute or two for it to complete.
- Once the USB drive creation is complete, you can close balenaEtcher and eject the USB drive from your OS.

Step 2 — (From Windows) Preparing USB Arch Linux Installation Media



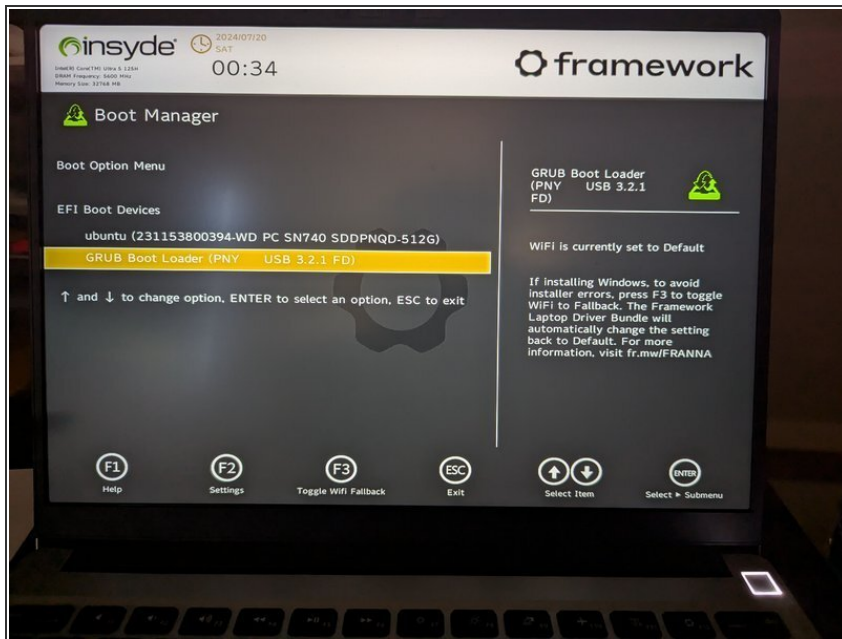
- First, download [Arch Linux](#) from Arch's website. Arch Linux has [a detailed installation guide](#) that you can follow. We'll go through the steps in this Guide assuming you have a simple installation scenario of a fresh install on a blank drive.
- New line.Download [Rufus](#) as a tool to create the USB installer from the ISO - select the top download option from the link provided. Rufus is available for Windows. Install it.
- Launch Rufus. Insert your USB drive (8GB or larger). Click on "Flash from file" and select the Arch Linux iso that you downloaded. Click on "SELECT" and choose your USB drive. Click "START" and wait a minute or two for it to complete.

Step 3 — Linux Audio Compatibility



- **Before we begin the installation process** with the Live USB, let's make sure you have your Linux Audio Compatibility set to Linux in the BIOS. Explanation as to what this does can be [found here](#).
- Power on the laptop, repeatedly tapping F2 in order to get into the BIOS. Note: If you're having trouble with this, try again, holding down the Fn key while rapidly tapping F2.
- In BIOS mode, arrow key over to Setup Utility. Press the enter key. Arrow down to Advanced. Then arrow right, then arrow down to Linux Audio Compatibility. Press enter.
- A new box for Linux Audio Compatibility will appear, arrow to Linux, then press enter. Now press F10 key to reboot.
 - ⓘ Now we don't have an OS installed yet. So the reboot won't get us to a running operating system and we fully expect to see an error to this point. Simply press the power button to shutdown.
- The next step is to install Arch Linux.

Step 4 — Installing Arch Linux



⚠ Secure Boot is optional: Enabling secure boot is completely optional and not necessary for normal operation, it's a personal choice.

Follow this link if you wish to enable it before installing Arch Linux. [More about secure boot here.](#)

- Insert the USB drive into your powered off Framework Laptop 16, and then power on. If you have an existing OS installed on the Storage drive in your laptop, immediately after the power light comes on begin rapidly tapping (continuously) the F12 key - you must begin tapping well before you see the Framework logo.

ⓘ If you don't have an internal storage drive installed or it is blank, the laptop will boot to the USB drive directly.

- Hit Enter again to boot into and install Arch Linux.

✦ This is a distribution of Linux that expects you to build to suit. So you will want to utilize the Arch Wiki to get your bearings on [how to install it.](#)

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- ⓘ If you wish to fast track your install and avoid manually doing each step manually, there is a

helper library called [archinstall](#) designed to speed up the process.

Step 5 — Arch Wiki Tips

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Discussion

Read

View source

View history

Tools

This article covers the installation and configuration of Arch Linux on a Framework 16 Laptop.

For a general overview of laptop-related articles and recommendations, see [Laptop](#).

Note: The AMD sections of the [Framework 13 Page](#) may serve helpful for troubleshooting while the Framework 16 page is being developed.

Installation

Follow the [Arch Install Guide](#) upto and including 'Prepare an installation medium'. Plug the all media into any of the expansion ports, and press the power button.

The first boot after assembly can take up to 30 seconds to perform memory training, but if it takes longer (up to a few minutes), refer to [Problems Booting](#).

If you get the error "EFI USB Device (USB_NAME) boot failed", refer to the [Disabling Secure Boot](#) section.

Continue with the [Arch Install Guide](#), then read through the rest of this article to setup framework specific hardware.

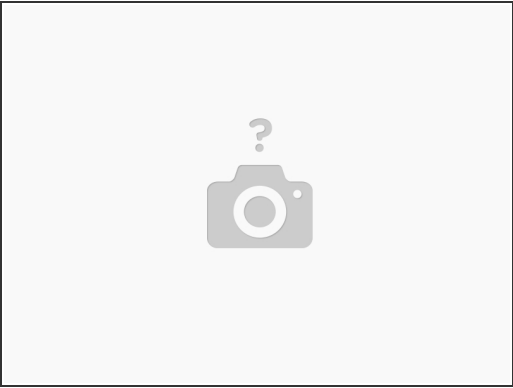
Hardware	PCI/USB ID	Working
iGPU	1002:15bf	Yes
Wi-Fi	14c3:0616	Yes
Audio	1002:1640	Yes
Keyboard Module - ANSI	32ac:0012	Yes
Keyboard Module - ISO	32ac:0018	Yes
Numpad Module	32ac:0014	Yes
Webcam	0bda:5634	Yes
Fingerprint reader	27c6:609c	Yes
Bluetooth	0e8d:e616	Yes
Accelerometer		Untest
TPM		Yes
Ambient light sensor		Yes

Problems Booting

The first boot after assembly can take up to 30 seconds to perform memory training, but if it takes longer (up to a few minutes) the LEDs next to the expansion modules should flash an error code. The first part of the code (Diagnosis) can be decoded [here](#), and the second part (POST Code) can be decoded [here](#).

- The Arch Wiki [configuration knowledge base](#) from the Arch Community.

Step 6 — Recommended: Updating to the latest firmware



- Before updating to the latest firmware, make sure you verify which BIOS were running.
 - ⚠ For Framework Laptop 16 AMD Ryzen 7040 Series, you can [check here](#) for the latest firmware.

Step 7 — Troubleshooting Arch Linux



- If you need additional help, feel free to visit our [active support community](#).

Enjoy using Arch on your Framework Laptop 16! If you have any questions or run into any issues, we recommend bringing them to the Community in the [Linux Arch topic](#). Members of the Framework team participate in discussions there.