



Ubuntu 22.04 LTS Installation on the Framework Laptop

How to install Ubuntu 22.04 LTS Linux on a Framework Laptop

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INTRODUCTION

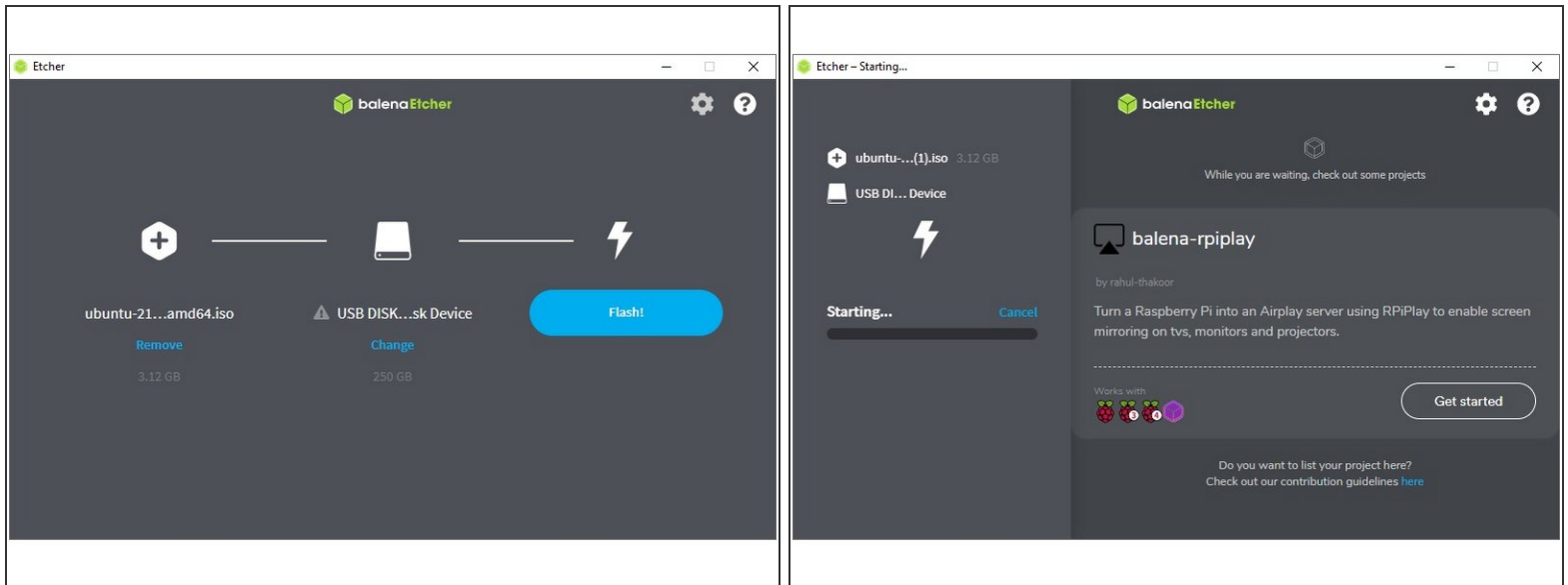
Once you have your Framework Laptop set up following the [Quick Start Guide](#), you're ready to install your preferred OS. Ubuntu 22.04 LTS works fantastically well right out of the box. WiFi and the Fingerprint Reader work automatically. With one workaround, you can also get pretty good standby battery life.



PARTS:

- [Storage Expansion Card](#) (1)
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Step 1 — Preparing Ubuntu Installation Media



- First, download the latest [Ubuntu 22.04 LTS Desktop image](#) from Ubuntu's website. Ubuntu 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 Windows, MacOS, and Linux. You can either install it or download the portable version that runs directly from the executable.
- Launch balenaEtcher. Insert your USB drive (8GB or larger). Click on "Flash from file" and select the ubuntu-22.04-desktop-amd64.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 — Running Ubuntu



- Insert the USB drive into your powered off Framework Laptop, and then power on. If you have an existing OS installed on the Storage drive in your laptop, you'll need to tap F12 as you boot to bring up the Boot Manager screen. You can then select the "Linpus lite" item with your arrow keys and hit Enter.
- ① 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 Ubuntu.
- After a few seconds, you're in! If you just want to try Ubuntu out, you can click on the Try Ubuntu button and browse through the live USB version of it without touching the internal storage drive. If you do want to install Ubuntu to the internal storage drive, go on to the next step.

Step 3 — Installing Ubuntu to a drive



- Click on the Install Ubuntu button.
- Select the keyboard language you'd like to use. On the next screen, connect to your WiFi network if available. On the "Updates and other software" screen, you can keep the default selections or optionally also check the "Install third-party software" box, and click Continue.
- On the "Installation type" screen, you may have a range of options available if there is already on OS on your internal drive. For the purposes of this guide, we're assuming a clean install with the "Erase disk and install Ubuntu" option. For the other advanced options around dual booting, you can follow [Ubuntu's guide](#). Click continue.
- Select your internal drive if it isn't selected, and click Install Now. Follow the on-screen instructions to select your time zone and set up your user account. After installation completes, click Restart Now.

Step 4 — Completing Setup



- ★ Make sure to update Ubuntu to the latest packages regularly, as there are often key fixes. In Terminal, you can run "sudo apt update && sudo apt upgrade -y". You can also update using the Software Updater application.
- ❗ With some SSDs (SN750 for one), there is also one optional workaround needed to get the best suspend battery life. If you are seeing high suspend power drain:
 - Edit /etc/default/grub as root. You can edit using a GUI by opening Terminal and running "gedit admin:///etc/default/grub &".
 - Find the line that starts with GRUB_CMDLINE_LINUX_DEFAU LT, and modify it to:
GRUB_CMDLINE_LINUX_DEFAU LT="quiet splash nvme.noacpi=1"
 - Save and close the file. Then in Terminal, run "sudo update-grub".
 - There are additional ways to optimize Linux battery life in [this community thread](#).
- ❗ If you've previously enrolled fingerprints in Windows or another Linux distro, you may find that fingerprint enrollment errors until you manually [force clear the stored fingerprints](#).

⚠ After installing your OS, we recommend updating to the latest firmware ([11th Gen Intel Core](#) or [12th Gen Intel Core](#)) to make sure the laptop is running at optimal performance and stability.

Step 5 — Additional steps for Framework Laptop (12th Gen Intel Core)



- ❗ 22.04.1 and newer have recent enough kernels that 12th Gen Intel Core support is solid. If you want to move to a more recent kernel though, you can optionally update to the OEM kernel package.
 - `sudo apt-get install linux-oem-22.04`
- The ALS and the brightness up/down keys conflict on currently shipping kernels. You can disable the ALS to restore brightness up/down functionality. First, edit `/etc/default/grub` as root. You can edit using a GUI by opening Terminal and running `gedit admin:///etc/default/grub &`.
- Find the line that starts with `GRUB_CMDLINE_LINUX_DEFAU` LT, and modify it to:
`GRUB_CMDLINE_LINUX_DEFAU`
`LT="quiet splash`
`module_blacklist=hid_sensor_hub"`
- Save and close the file. Then in Terminal, run `sudo update-grub`.

Enjoy using Ubuntu on your Framework Laptop! If you have any questions or run into any issues, we recommend bringing them to the Community in the [Ubuntu 22.04 topic](#). Members of the Framework team participate in discussions there.