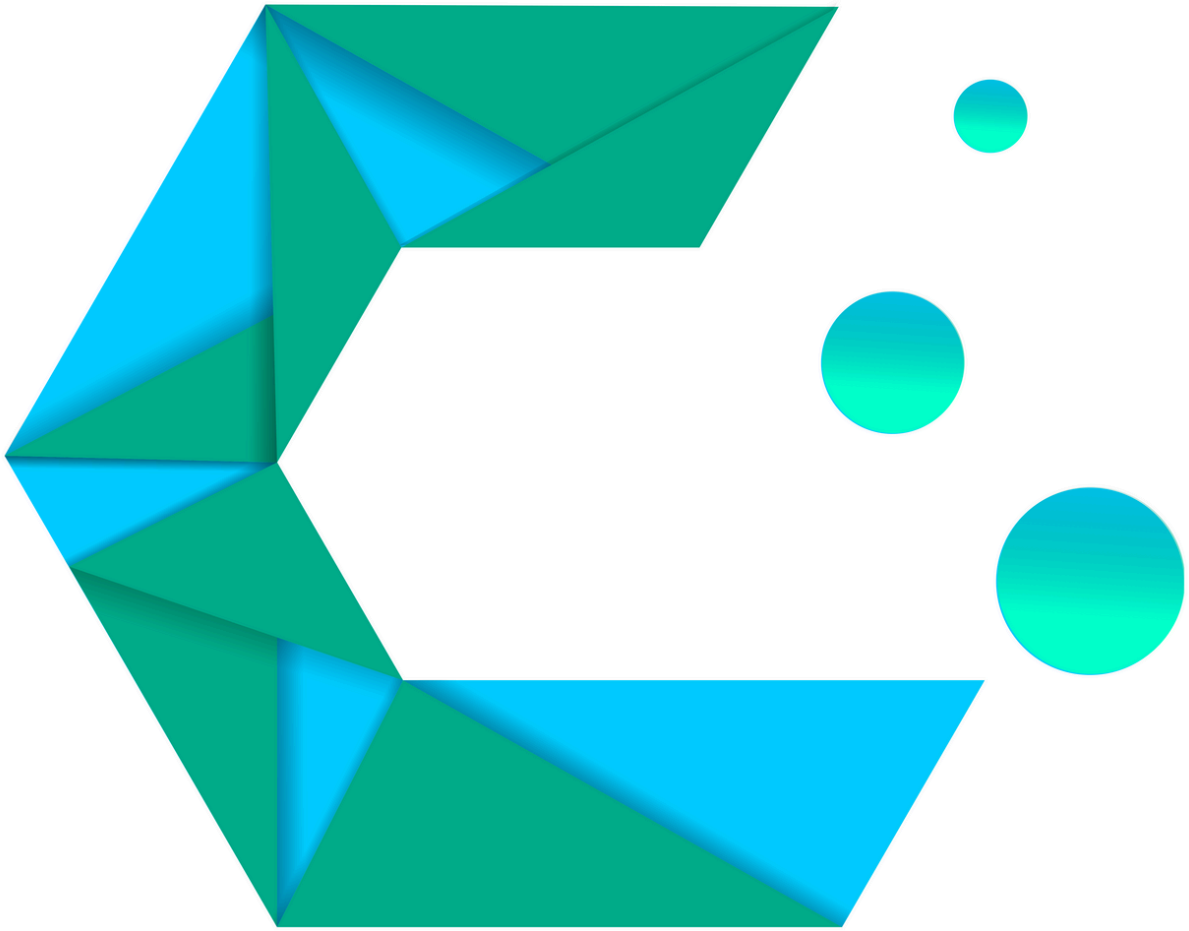
CachyOS Installation on the Framework Desktop

How to install CachyOS Linux on a Framework Desktop.

Written By: Matt Hartley



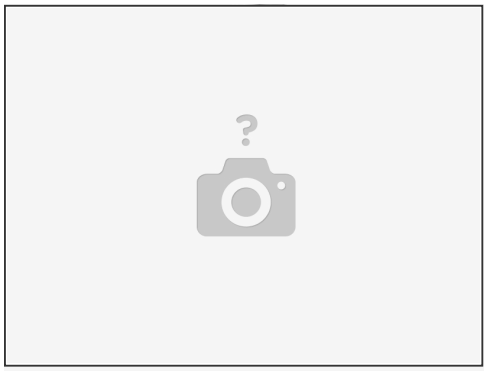
INTRODUCTION

Once you have your Framework Desktop set up following the Quick Start Guide, you're ready to install your preferred OS. CachyOS is one of the many community supported Linux distributions we recommend. It offers bleeding edge software enabling full hardware support with very little setup required, and the installer offers options for many popular GUIs.

PARTS:

- Storage Expansion Card (1)

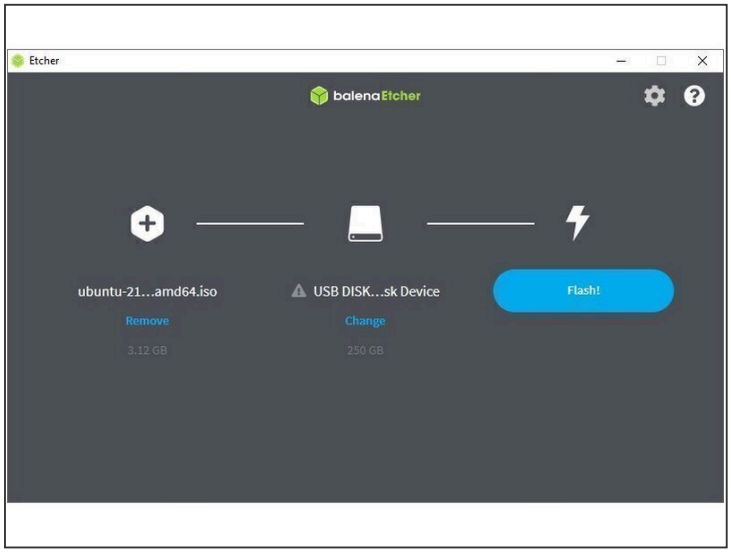
Step 1 — CachyOS on both Framework Desktop (300 Series) and Framework Desktop (400 Series)



This guide is for CachyOS on both Framework Desktop (300 Series) and Framework Desktop (400 Series).

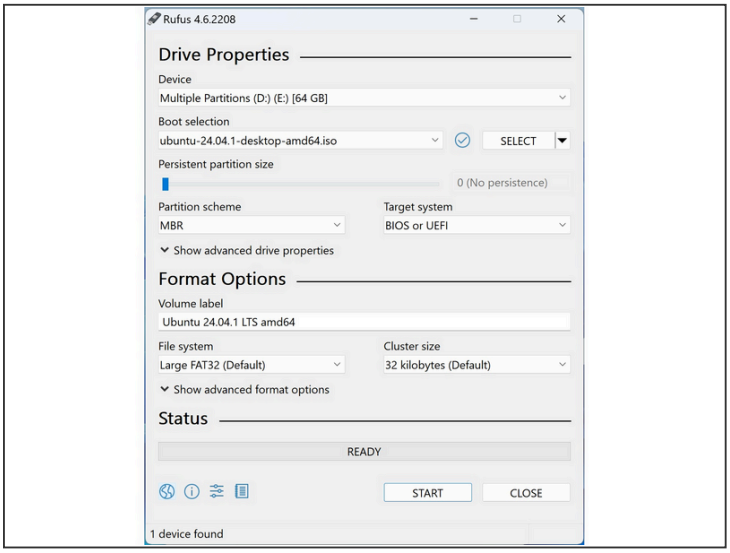
Step 2 — (From macOS) Preparing USB CachyOS Installation Media

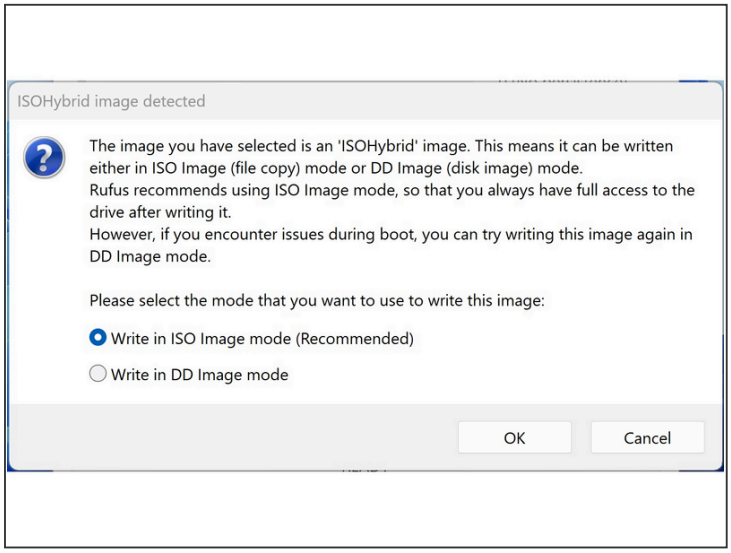




- First, download the latest CachyOS release from the CachyOS website. We'll go through the steps in this Guide assuming you have a simple installation scenario of a fresh install on a blank drive.
- Download balenaEtcher as a tool to create the USB installer from the ISO. balenaEtcher is available for MacOS. Install it.
- Launch balenaEtcher. Insert your USB drive (8GB or larger). Click on "Flash from file" and select the CachyOS 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 3 — (From Windows) Preparing USB CachyOS Installation Media





⚠ This process will delete all data from the flash drive being used! Ensure any important data that may be kept on those drives is backed up before continuing.

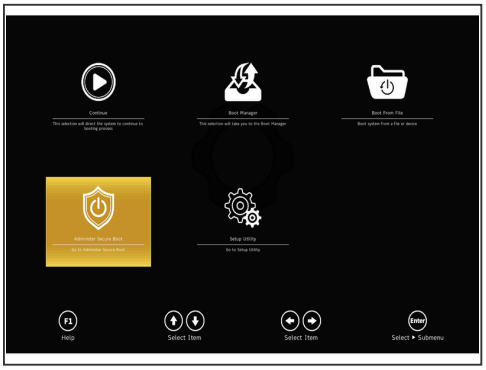
- First, download the latest CachyOS release from the CachyOS website.
- Download Rufus as a tool to create the USB installer from the ISO. The first item in this list will be a link to install installer for the latest version. Install Rufus using this.
- Open Rufus, from the Device drop-down, select the USB flash drive stick.

  ⚠ In order to use devices like external hard drives, external solid state drives, or the Framework Storage Expansion Card to create a live USB, *List USB Hard Drives* must be enabled under *Show advanced drive properties*.
- Use the *Select* Button next to *Boot selection* to choose the downloaded CachyOS ISO.

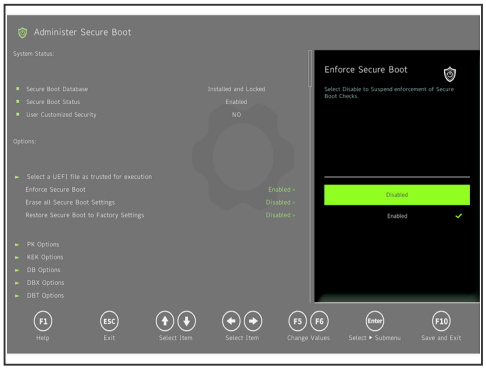
⚠ Set *Partition scheme* to *GPT* to ensure the live USB is properly recognized at boot.

- Click Start. A window will pop up to prompt for a choice between *dd image mode* and *ISOHybrid image mode*. Select *ISOHybrid image mode* then *OK*.

Step 4 — Secure Boot







⚠ To install CachyOS, Secure Boot must be disabled! By default CachyOS will not boot with Secure Boot enabled. Please refer to our explanation of Secure Boot to learn more.

ⓘ To disable secure boot:

- Boot into BIOS by tapping F2 just before the Framework splash screen.
- Arrow down to Administer Secure Boot. Press enter.
- Arrow down to Enforce Secure Boot. Press enter, select Disabled, and press enter.
- Press F10 to save and reboot. With Yes selected, press Enter.

To enable Secure Boot again, repeat the above steps but select Enable this time.

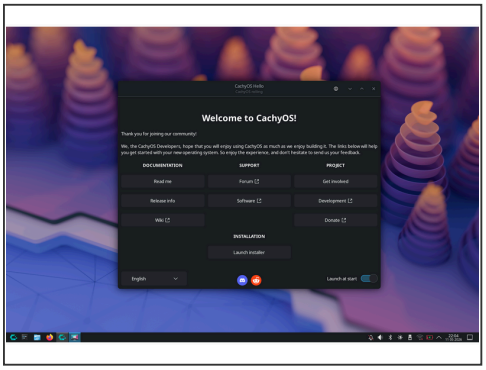
Step 5 — Booting to Live CachyOS USB



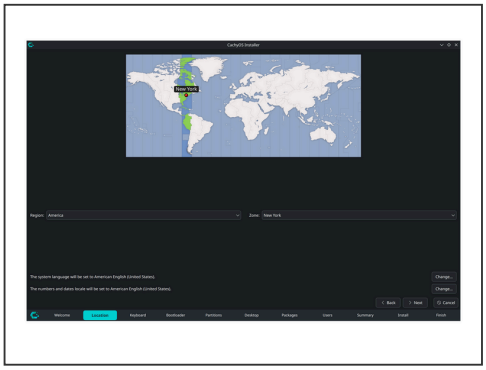


- Insert the USB drive into the powered off computer, and then power on. If an existing OS is installed on the Storage drive in the computer, immediately after the power light comes on begin tapping the F12 key before the Framework logo is visible.
  - ⓘ If no operating system is detected, the system will automatically boot from the Live USB.
- Select the USB drive. Press the enter key.
- Next select CachyOS from the list (not the LTS version). Hit the enter key.
- The speed of the flash drive will determine how quickly the live environment starts. It will boot directly to a KDE desktop in anywhere from a few to many minutes.

Step 6 — Starting CachyOS Installation



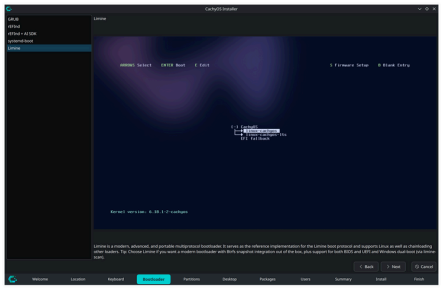
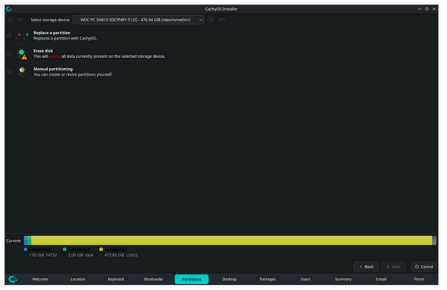
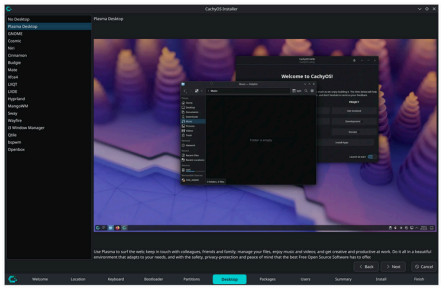




⚠ In the bottom right corner of the screen, use the WiFi icon in the system tray to connect to a network. The installer will not work without it.

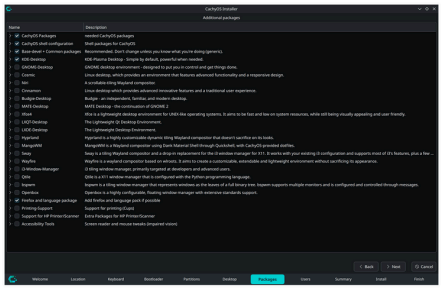
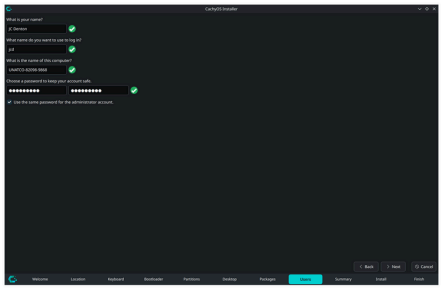
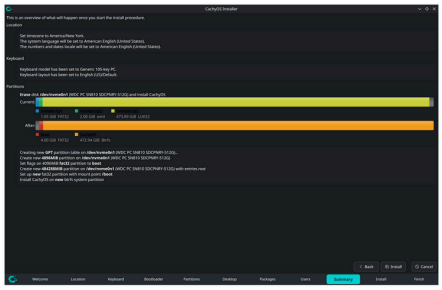
- The first thing to open on the live desktop is CachyOS Hello, a greeter window that provides links to a number of useful resources, an option to select language, and a button to open the installer.
- Click "Launch installer" in the CachyOS Hello window after connected to the internet. If the window was closed for any reason, it can be reopened using the Application Launcher on the left side of the task bar.
- When the installer opens, select a language, region (locale), timezone, and keyboard layout, clicking "Next" to progress through each slide.

Step 7 — Configuring CachyOS Installation

- Select a bootloader. The installer includes descriptions for each option. The installer defaults to Limine. GRUB is a very mature and well documented option that's also easy to get help with.
  - ⓘ The default option is the Limine, this is a newer option intended to work well with the snapshots feature of the default filesystem.
  - ⓘ GRUB is a traditional option that may be preferred by long-time Linux users.
- Select the drive for install and choose to *Wipe the whole drive*. A filesystem for the root partition can also be selected.
  - ⓘ The default option is btrfs, a filesystem with features like snapshots that allow users to revert the system to a previous state if, for example, an update fails.
- Select a desktop environment. Most of them are well described and have visual demonstrations to help selection.
  - ⓘ The default option is KDE. This option will be familiar to Windows users. It can be heavily customized to the user's comfort.
  - ⓘ Mac users may find Gnome or Cosmic Desktop more familiar or comfortable.

Step 8 — Finalizing CachyOS install

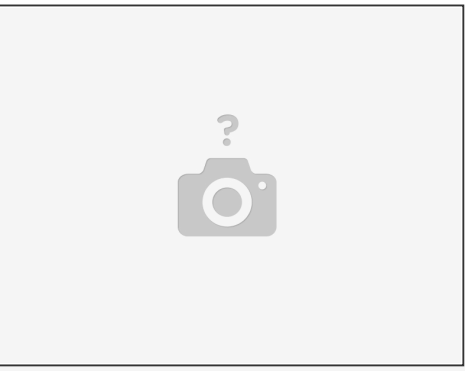




- There is an option selection for extra packages. While it isn't recommended to install multiple desktop environments or display managers, it is possible to do so.
  - ⓘ This is where support for Printers can be installed
- Set up the primary user by filling out the Name, Username, and Password fields with the relevant information.
  - ⓘ Unchecking "Use the same password for Administrator account" allows a separate password to be set for the root account.

⚠ Review all the details on the Summary slide. This is the last chance to change install options and data is written to the drive.

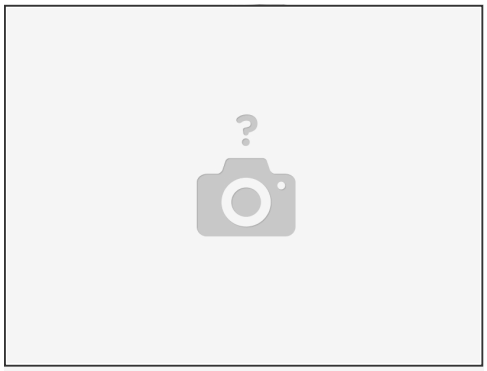
- ⓘ After review, click *Install* then *Install Now* to finalize all selections and begin the install.

Step 9 — Completing Setup



- Configuration of system settings will vary depending on the desktop chosen during install. Desktop environments like Gnome, KDE, and Cosmic tend to be fully featured and include the ability to configure most things in an app called "System Settings" or similar.

Step 10 — Recommended: Updating to the latest firmware



- How to check the BIOS version. Go to and click upper left corner where you see the horizontal line, search terminal and launch it. Please follow the step below:

sudo pacman -S lshw dmidecode --noconfirm && clear && sudo dmidecode | grep -A3 'Vendor:\|Product:' && sudo lshw -C cpu | grep -A3 'product:\|vendor:'

The output will tell you which Framework Desktop you have and also which BIOS version you're using.

Framework Desktop firmware update link for the 300 Series.

Framework Desktop firmware update link for the 400 Series.

IMPORTANT: Per the instructions above, we do NOT recommend updating BIOS and firmware using various GUIs. We recommend using fwupdmgr as provided in the step above. Using GUIs can potentially create issues that would not be present using fwupdmgr directly.

Enjoy using CachyOS on your Framework Laptop 13 Pro!