

Install Linux Mint on a Macbook Pro

A set of tips for installation and post install

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1 Introduction

To get started we'll need to download the latest Linux Mint "iso" file and burn it onto a USB drive. To accomplish this we need a desktop macbook pro running macos with either wifi or ethernet internet connectivity, and at least one external port.

1.1 Install Mint on a macbook pro

The specific goal of this “DIY” project is to refurbish a seven year old macbook pro laptop with a contemporary linux operating system. The OS we’ll focus on for this post is **Linux Mint**. Why Mint? Well, as its been, “since the beginning” of the linux era (circa 1993) the main challenge to installing a linux distribution on almost any PC or mac is wrestling with the hardware drivers: notably video, audio, trackpad, power management drivers. The Mint distro provides the drivers needed for our target macbook pro making the install much, much straightforward.

The target machine is a 2016 13-inch MacBook Pro with four Thunderbolt 3 Ports.

To start the process download an **iso** file from the Mint website. The current “Victoria” version of Mint **iso** file is 3.03 GB in size. The download site is [here](#). The download torrent file can be found here [here](#). The “Cinnamon” edition is recommended.

On a macbook pro running **macos** you can use one of a number of apps to download the **iso** via torrent. we suggest **Transmission**, available [here](#).

Once downloaded we can transfer the **iso** file to a USB flash drive using one of several methods. On **macos** we suggest using the app **balanaEtcher**. You can download **balanaEtcher** [here](#)

Insert the bootable USB flash drive into the target macbook and reboot. Hold the ALT key while the machine reboots and you’ll be presented with a screen offering boot drive options. Select the icon for the USB drive and a **grub** menu will appear. From the **Grub** menu choose **Start Linux Mint 21.2 Cinnamon 64-bit**. and the Mint install program will start.

A **linux mint** desktop will appear allowing you to “test drive” **Mint** or to continue the install by clicking the icon labeled “install Linux Mint”.

A setup dialog will start. Select, in sequence

- Language (English for us),

” When your Linux operating system starts up, GRUB is the first program that runs. It loads the kernel of the operating system, and then the kernel loads the rest of the operating system, including the shell, the desktop environment, and other operating system features. ”
[codecademy](#)

- Network (suggest skip),
- codexes (suggest skip),
- options for a “fresh install” or “something else” (choose fresh to devote full hard drive to Mint).
- Location (Pacific region for us),
- name a user who will have administrator privileges, a hostname, and assign a password.

If you have ethernet connectivity plug the cable directly into the target macbook and Mint should connect automatically to the internet. For wireless wifi access use a supported modem e.g. Panda Wireless modem for internet access. Panda is supported since Mint 21.2 has Ralink RT5372 drivers installed. (see appendix for Broadcom install instructions)

The final hardware related step is to add a second monitor if available via HDMI or use Cinema display 27” via a Thunderbolt adapter on older macbooks.

Thats it. Reboot and login with username and password you provided earlier.

2 Setup configuration

Suggestions:

1. Open Display menu (press `command` key to open menu and search for “display”). Select Primary monitor with 2560x1440 as the resolution for both monitors. Set **Monitor scale** at 200% to increase default font size in apps. Second monitor should be set at 3840x2160 (200%)
2. Turn on the pre-installed backup program, Timeshift, to provide hourly snapshots.
3. Set keyboard and trackpad preferences:
 - Open **Mouse and Touchpad** in settings. Turn on **Tap to click** and **Reverse scroll**.
 - Open **Keyboard > Layouts > Options > Caps Lock behavior** and select **Swap Esc and Caps-Lock**

4. Update base pre-installed software.

```
> sudo apt update
> sudo apt upgrade
```

3 Additional Software setup

1. Install basic utilities `git`, `wget`, `curl`, `zsh`, `vim`, `zathura` as well as major applications `tex`, `dropbox`, `qutebrowser`, `dropbox`, `firefox` and `zathura` with one command:

(dropbox requires one additional command for install.)

```
> sudo apt update sudo apt install i3 zsh wget curl git texlive-full
dropbox vim zathura qutebrowser firefox Dropbox texlive-full -y

> dropbox start -i
```

2. Install Zotero The easiest way to install Zotero is with the Mint Software Manager aka Flatpak.
3. Install `oh-my-zsh` and `oh-my-zsh` plugins `z` and `z-autosuggestions`

```
sh -c "$(curl -fsSL https://raw.githubusercontent.com/ohmyzsh/ohmyzsh/master/tools/install.sh)"
git clone https://github.com/zsh-users/zsh-autosuggestions \
  ${ZSH_CUSTOM:~/.oh-my-zsh/custom}/plugins/zsh-autosuggestions
git clone https://github.com/agkozak/zsh-z \
  ${ZSH_CUSTOM:~/.oh-my-zsh/custom}/plugins/zsh-z
```

Don't forget to edit `.zshrc` to include `z` and `z-autosuggestions` in the plugins list.

Run bash shell script `~/Dropbox/dotfiles/set_up_links.sh` to set up symbolic links (e.g. `ln -s ~/Dropbox/prj ~/prj`). See Appendix 1 below for details.

4 Niceties

2. Set up Zotero syncing.

5 Appendix 1. Script to set up links from local Home to Dropbox

set_up_links.sh

```
#!/bin/zsh
ff=".zshrc" ".vimrc" ".local" ".vim" ".config"
for P in "${ff[@]}"
do
    echo "create a link for Dropbox/dotfiles version of $P in Home"
    ln -v -s "$HOME/Dropbox/dotfiles/$P" "$HOME/$P"
done

dd=("sbx" "bin" "docs" "prj" "work" "shr")
for P in "${dd[@]}"
do
    echo "create a link for Dropbox working directories $P in Home"
    ln -v -s "$HOME/Dropbox/$P" "$HOME/$P"
done
```

6 Appendix 2. Install Broadcom driver for wifi.

TBD

7 Appendix 3. Copy files to new Mint machine

Connect to new machine via ssh from mac laptop

First on the new machine (zz)

```
zz> sudo apt install ssh
zz> ifconfig
```

get IP for target, say 10.0.1.196

```
mac> ssh z@10.0.1.196
mac> scp .vimrc z@10.0.1.196:~
```