

Install Linux Mint on a Macbook Pro

A set of tips for installation and post install

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Table of contents

1	Introduction	1
1.1	Install Mint on a macbook pro	2
2	Setup configuration	3
3	Next software setup steps...	4
4	Niceties	4
5	Appendix 1. Script to set up links from local Home to Dropbox	4
6	Appendix 2. Install Broadcom driver for wifi.	5



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 that 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 with a new 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 mac making the install much, much simpler.

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

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

On a macbook pro running **macos** you can use one of a number of apps to download the **iso** via torrent. we suggest **Transmission**

[here](#) .

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

Insert the bootable **USB** flash drive into the target macbook and reboot. Hold the **ALT** key to allow booting from the external **USB** drive. 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 boot.

A **linux mint** desktop will appear. There is one icon on the screen labeled “install Linux Mint”. Double click it.

A setup dialog will start. Select in sequence

- Language (English for us),
- 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 root user, a hostname, and assign a password.

If you have ethernet connectivity plug the cable directly into the target macbook and Mint should connect automatically. For wireless 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)

1. 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.

2 Setup configuration

The following reflect the authors personal data science workstation preferences.

1. Open Display menu. Select 2560x1440 as the resolution for both monitors. Set **Monitor scale** at 150%.
2. Turn on 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 software. (NB upgrade may be an issue with 2013 macbook)

```
sudo apt-get update ; sudo apt-get upgrade
```

3 Next software setup steps...

1. Install basic utilities `git`, `wget`, `curl`, `zsh`, `vim`, `zathura`

```
sudo apt update
sudo apt install i3 zsh wget curl git vim zathura -y
```

Install `qutebrowser` and `firefox`.

```
sudo apt install qutebrowser firefox
```

2. Install `Dropbox`, `Zotero` and `Texlive-full`. The easiest way to install `Dropbox`, `Zotero` and `Tex` is with the `Mint` software manager.
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.

4 Niceties

1. Add `Vimium` extension to `firefox`.
2. Set up `Zotero` and `Firefox` 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/dotfiles version of echo $P in Home"
ln -v -s "$HOME/Dropbox/$P" "$HOME/$P"
done
```

6 Appendix 2. Install Broadcom driver for wifi.

TBD