

Flash USB Drive with Arch Linux ISO

Compute the SHA256: `sha256sum ~/Downloads/archlinux-2024.04.01-x86_64.iso`

Format and flash the USB drive with this utility:

```
# READ the following and run with caution
lsblk # To see what disks are listed
cd ~/Downloads/
sudo dd status=progress if=archlinux-2024.04.01-x86_64.iso of=/dev/sda bs=4M
sync
```

Install Arch

"Keep as much of the defaults as possible, unless you have a good reason"

- Video walkthrough: <https://www.youtube.com/watch?v=G-mLyrHonvU>
- Arch Wiki: https://wiki.archlinux.org/title/Installation_guide
- Boot from the USB
- Connect to the internet (WIFI)

```
iwctl
[iwd]# device list
[iwd]# station wlan0 scan
[iwd]# station wlan0 get-networks
[iwd]# station wlan0 connect [SSID name]
exit
```

- Start the installer for Arch Linux

```
archinstall
```

- Load installer with predefined config (users and passwords are not saved):

```
archinstall --config user_configuration.json
```

- These are the settings I chose:

Achinstall language:	English
Mirrors:	Canada, United States, Worldwide
Locales:	us, en_US, UTF-8
Disk:	Use a best-effort default partition layout btrfs, subvolumes (yes), compression (yes)
Disk encryption:	Yes, type in a password
Bootloader:	Systemd-boot
Unified kernel images:	False
Swap:	False (we will create later)
Hostname:	Enter machine name
Root password:	Enter password
User account:	Add a user, enter username, enter password, make it superuser
Profile:	Type: Desktop, Xfce4 Graphics driver: Nvidia (open kernel module) Greeter: SDDM has more theme selection https://www.youtube.com/watch?v=
Audio:	Pipewire
Kernels:	linux
Additional packages:	firefox
Network Configuration:	Use NetworkManager
Timezone:	America/Toronto
Automatic time sync (NTP):	True
Optional repositories:	multilib

How to go into the newly installed system to fix issues:

- SDDM Login Manager
- Ctrl + Alt + F6 - Terminal Mode
- Ctrl + Alt + F2 - GUI Mode

Chroot into partition to edit files and fix the computer

```
# https://www.youtube.com/watch?v=bHGNkp7mYMc
lsblk # To see what disk to unencrypt
cryptsetup open /dev/vda2 cryptroot
mount /dev/mapper/cryptroot /mnt
nano /mnt/@/etc/fstab # To see the the mount points, which the following commands are ci
mount -o subvol=@ /dev/mapper/cryptroot /mnt
mount -o subvol=@home /dev/mapper/cryptroot /mnt/home
mount -o subvol=@pkg /dev/mapper/cryptroot /mnt/var/cache/pacman/pkg
mount -o subvol=@log /dev/mapper/cryptroot /mnt/var/log
mount /dev/vda1 /mnt/boot
arch-chroot /mnt
```

Connect to the Internet After Install (if Network Manager is not present)

- Guide: <https://www.youtube.com/watch?v=loJKf1zr1bU>

```
nmcli r wifi on
nmcli d wifi list
nmcli connections show
nmcli d wifi connect '[SSID name]' password '[WIFI password]'
```

Run Post Installer

```
./postinstall.sh
```