Arch Linux Install

1. First create media, example for usb

```
$ dd  if=path/to/iso of=/dev/sdb
```

if = input file, of = output file which is whatever /dev/sd?? The usb is

2. Verify connectivity, if not ethernet use wifi-menu to connect to wifi

3. Setup time

```
$ timedatectl  set-ntp true
```


4. Partition drive

```
#Check which drive  you want to partition
$ lsblk

#replace sda with  whatever drive you are installing too
$ fdisk /dev/sda

#check for existing  partitions
$fdisk>  p

#delete existing  partitions
$fdisk> d

#create boot  partition 200MB
$fdisk> n
$fdisk>  Partition type (default)
$fdisk>  Partition number (default)
$fdisk> First  sector (default)
$fdisk> Last  sector (+200M)  #this partition will be the boot partition, whatever size  you want it to be
$fdisk> Y  (remove signature)

#create swap  partition should be 1.5x amount of ram, this example 8gb ram, 12gb swap
$fdisk> n
$fdisk>  (default)
$fdisk>  (default)
$fdisk>  (default)
$fdisk> +12G

#create root  partition, 15-25G?? Depends on how much crap you install
$fdisk> n
$fdisk>  (default)
$fdisk>  (default)
$fdisk>  (default)
$fdisk>  +25G

#create home  partition rest of the space
$fdisk> n
$fdisk> P (may  not default to p)
$fdisk>  (default)
$fdisk>  (default)
$fdisk>  (default)

#write changes
$fdisk> w
```

5. Make filesystem

```
#make file system  for boot, root and home partitions

$ mkfs.ext4  /dev/sda1 <== boot
$ mkfs.ext4  /dev/sda3 <== root
$ mkfs.ext4  /dev/sda4 <== home
```

6. Setup swap partition

```
$ mkswap /dev/sda2  #swap
$ swapon /dev/sda2
```

7. Mount drives

```
#mount root first
$ mount /dev/sda3  /mnt

#make dirs to mount  other drives
$ mkdir /mnt/home
$ mkdir /mnt/boot

#mount home and  boot to dirs just created
$ mount /dev/sda1  /mnt/boot
$ mount /dev/sda4  /mnt/home
```

8. Installl Arch

```
#install base and  whatever other packages you want/need
$ pacstrap /mnt  base base-devel vim
```

9. Create fstab file for booting

```
#display what is in  /mnt if needed
$ genfstab /mnt

#make it use UUID  by default
$ genfstab -U /mnt

#dump into fstab  file
$ genfstab -U /mnt  >> /mnt/etc/fstab

#verify
$ vim  /mnt/etc/fstab
```

10. Prep before boot

```
#change to install  dir from booted drive
$ arch-chroot /mnt

#install a network  manager, there are various kinds
$ pacman -S  networkmanager

#start  networkmanager on login
$ systemctl enable  NetworkManager

#install grub  bootloader
$ Pacman -S grub

#configure grub
$ grub-install  --target=i386-pc /dev/sda

$ grub-mkconfig -o  /boot/grub/grub.cfg

#set root password
$ passwd

#setup locale,  uncomment preferred language e.g. "en_US.UTF-8 UTF-8" &  "en_US ISO-8859-1"
$ vim  /etc/locale.gen

$ locale-gen

$ vim  /etc/locale.conf

LANG=en_US.UTF-8

$ ls  /usr/share/zoneinfo/  to see available  zones

$ ln -sf  /usr/share/zoneinfo/America/Chicago /etc/localtime

#set hostname
$ vim /etc/hostname

Hostname

#unmount drives
$ exit

$ umount -R /mnt

$ reboot
```