

# Install Arch Linux on USB Stick with persistent storage

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## ABSTRACT

Smatest way to live is always learning.

### You needs

- A USB: min 8GB-...500GB formatted in FAT32/NTFS (not ExtF or Ext4)
- A USB: min 2GB with Arch Linux installed (with Rufus or LiveLinux)
- A Ethernet/ Wifi connection

### Main process (als Stichworte)

Boot in Arch on Arch installed USB

- `wifi-menu` //connect to WiFi
- `lsblk` //list the disks , find the USB drive (sdc/sdb..)
- `cfdisk /dev/sdc` //Format disk
  - > Delete partition
  - > Create new partions
  - > `sdc1 = 500M -> 2G (bootable)`
  - > `sdc2 = Rest (128G-20G)`
  - > Write disk
- `mkfs.ext4 /dev/sdc1 && mkfs.ext4 /dev/sdc2`
- `lsblk` //Check disks
- `mount /dev/sdc2 /mnt` //MOUNT sdc2 to /mnt (Mount drive to work on)
- `mkdir /mnt/boot`
- `mount /dev/sdc1 /mnt/boot`
- `pacstrap /mnt base base-devel vim`
  - // Install base applications to /mnt bzw. our sdc2 (USB Drive to initiate new system)
  - // Any apps can installed here (vim, NetworkManager, sudo, grub)
- `genfstab -U -p /mnt >> /mnt/etc/fstab`
- `cat /mnt/etc/fstab`
- `arch-chroot /mnt`
- `nano(or vim) /etc/pacman.d/mirrorlist`
  - // Ctrl K to cut
  - // Ctrl U to paste

- // Take the "Germany" links on top
- `ln -sf /usr/share/zoneinfo/Iceland /etc/localtime` // (or `zoneinfo/Europe/Berlin`)
- `hwclock --systohc --> hwclock` // to check the time
- `nano /etc/locale.gen`  
// Uncomment this line "EN\_US.UTF-8 UTF-8"
- `locale-gen` // to generate the Keys
- `nano /etc/mkinitcpio.conf`  
// Change this line to  
`HOOKS=(base udev block autodetect modconf filesystems keyboard fsck)`
- `mkinitcpio -p linux`
- `nano /etc/pacman.conf`  
// Uncomment these lines  
`[multilib]`  
`Include = /etc/pacman.d/mirrorlist`
- `pacman -Sy`
- `passwd` // type in password for root users
- `nano /etc/hostname` //"archer" - Name of root user
- Create a new user:  
`useradd -m -g users -G wheel,storage,power -s /bin/bash shiki`  
`passwd shiki` // set password for "shiki"
- `pacman -S sudo` (if not installed)
- `nano /etc/sudoers`  
// Uncomment these lines to allow members of group WHEEL to execute any commands  
`%wheel ALL = (ALL)ALL`
- `pacman -S grub` (if not installed)
- `grub-install --boot-directory=/boot --recheck --debug --target=i386-pc /dev/sdc`  
// no Errors -> Good to go
- `grub-mkconfig -o /boot/grub/grub.cfg`
- `pacman -S networkmanager` (if not installed)
- exit to root
- `umount -R /mnt`
- `lsblk` to double check
- NOTE: muss install when no cable zu Verfügung gestellt.  
`pacman -S dialog` \*\*before umount\*\*  
`systemctl disable NetworkManager` (if enabled) here isn't  
`systemctl enable dhcpcd`  
`systemctl enable netctl-auto@wlp2s0.service`  
// `wlp2s0/wlp4s0` is from Laptop/Computer Hardware  
// Check WLAN-Adapter bei typing "ip link"
- Unmount everything and reboot to USB -> "exit" then "`umount -R /mnt`"

## 1. After fresh install Arch

- Boot in -> login with accounts  
root -> passwd of root (zB. "root" :) shiki -> passwd of shiki
- sudo su //to execute administrator commands
- wifi-menu //to connect with Wifi
- Install LARBS (credit of Luke Smith)  
curl -LO larbs.xyz/larbs.sh  
bash larbs.sh
- After that, ...
- disable dhcpcd, netctl-auto (just the upper command lines "enable" -> "disable")
- enable NetworkManager \*systemctl enable NetworkManager

**REBOOT in to USB -> LOGIN -> "startx"**

**You're done! Congratulations :D :D :D :D :D**

**p/s: When you in troubles sich befindest, bitte nimm Kontakt mit mir auf duynguyenhnde@outlook.com**