Note: The Raspberry Pi 3 has higher power requirements : A power supply rated at 2.5A is the official recommendation.

ARMv8 Installation

Use this installation if you require any of the vendor's kernel hacks, overlays, or closed-source GPU blobs and utilities.

Replace **sdX** in the following instructions with the device name for the SD card as it appears on your computer.

1. Start fdisk to partition the SD card:
   ```
   fdisk /dev/sdX
   ```
2. At the fdisk prompt, delete old partitions and create a new one:
   a. Type **o**. This will clear out any partitions on the drive.
   b. Type **p** to list partitions. There should be no partitions left.
   c. Type **n**, then **p** for primary, **1** for the first partition on the drive, press ENTER to accept the default first sector, then type **+100M** for the last sector.
   d. Type **t**, then **c** to set the first partition to type W95 FAT32 (LBA).
   e. Type **n**, then **p** for primary, **2** for the second partition on the drive, and then press ENTER twice to accept the default first and last sector.
   f. Write the partition table and exit by typing **w**.
3. Create and mount the FAT filesystem:
   ```
   mkfs.vfat /dev/sdX1
   mkdir boot
   mount /dev/sdX1 boot
   ```
4. Create and mount the ext4 filesystem:
   ```
   mkfs.ext4 /dev/sdX2
   mkdir root
   mount /dev/sdX2 root
   ```
5. Download and extract the root filesystem (as root, not via sudo):
   ```
   wget http://os.archlinuxarm.org/os/ArchLinuxARM-rpi-3-latest.tar.gz
   bsdtar -xpf ArchLinuxARM-rpi-3-latest.tar.gz -C root
   sync
   ```
6. Move boot files to the first partition:
   ```
   mv root/boot/* boot
   ```
7. Unmount the two partitions:
   ```
   umount boot root
   ```
8. Insert the SD card into the Raspberry Pi, connect ethernet, and apply 5V power.
9. Use the serial console or SSH to the IP address given to the board by your router.
   - Login as the default user *alarm* with the password *alarm*.
   - The default root password is *root*.
10. Initialize the pacman keyring and populate the Arch Linux ARM package signing (/about/package-signing) keys:
    ```
    pacman-key --init
    pacman-key --populate archlinuxarm
    ```