# Creating Bootable SD card for Raspberry Pi

In this tutorial, you will learn how to install Operating system on Raspberry Pi. We will provide you the customize **operating system image** with **ROS.**

Follow the given procedure to install the operating system for R-PI

1. Get a micro SD card (16GB) provided in kit. Insert it in card slot or use **USB card reader**.
2. Copy the content (ros-berry_customize.zip) of SD card to **desktop** and extract it. After extracting you will find an image file- "**ros_berry_customize.img**" on desktop.
3. Use ctrl+alt+T to open terminal in Linux.
4. Type *df -h* in terminal. It will list all file system and drives usage as shown in Figure-1

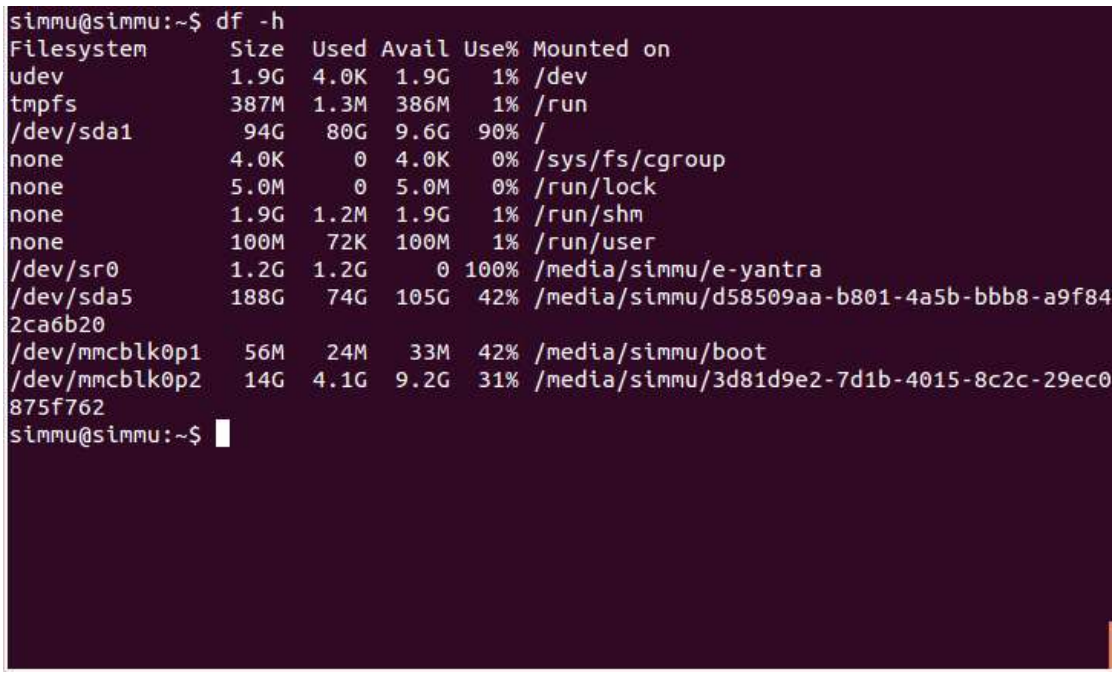


*Figure-1: Output of df –h (note space between df and -h)*

5. Note the *File system* of SD card. You can easily distinguish from your PC file system using *Size* column.
6. Use **"dd"** command to install image to SD card. Refer Figure-2

   ***dd if=name_of_image_with_extension of=file_system_without_number***

   **Example:**

   ***sudo dd if= ros_berry_customize.img of=/dev/mmcblk0 bs=4M***
7. The **"dd"** command does not give any information of its process and so it may appear screen is frozen; it could take 10 to 20 minute to complete the process.

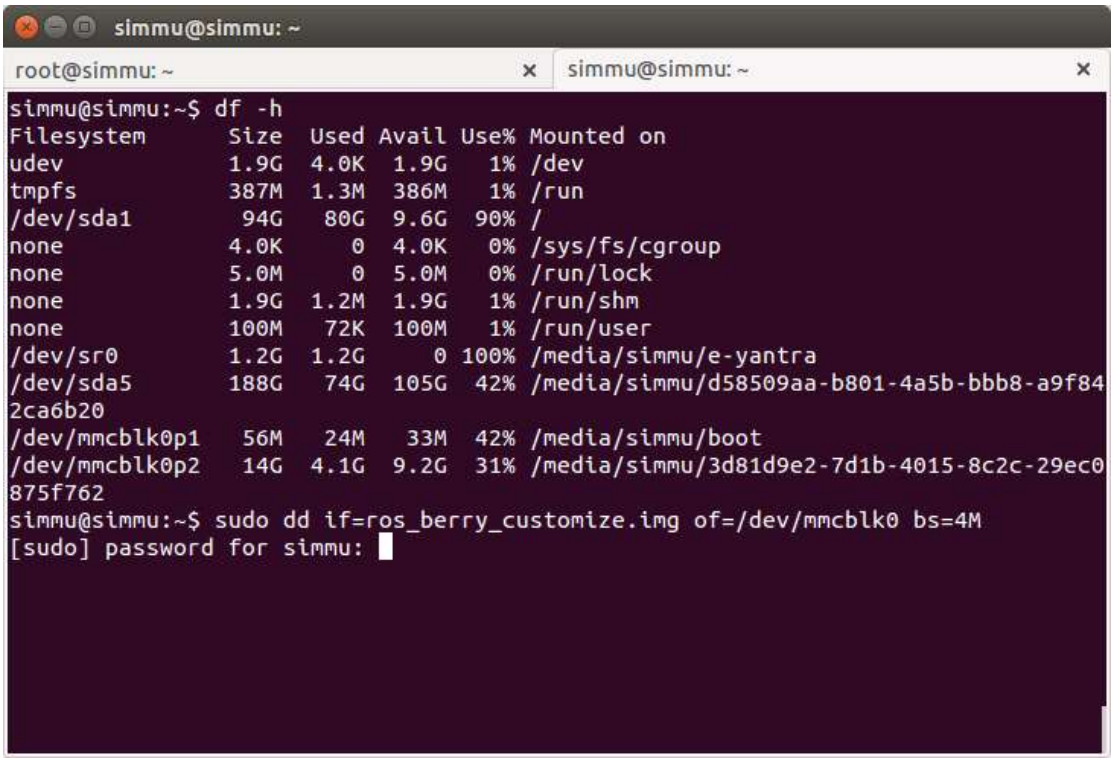


*Figure-2: Using dd command*

**Note:**

1. **“if”** stands for input file - It is image file of linux distribution. In case image file is not in your present working directory, specify complete directory path of image file.
2. **“of”** stands for output file - It is file system for your SD card. While installing image in SD card, we want to install OS to whole SD card so use SD card file system without partition number.