

Identify and Mount a Drive

THIS SECTION IS NOT FINISHED

first we need to identify the disk(s):

```
sudo blkid
```

This will list any recognised devices:

```
/dev/mmcblk0p1: LABEL="RECOVERY" UUID="0403-0201" TYPE="vfat" PARTUUID="0006dd3f-01"  
/dev/mmcblk0p5: LABEL="SETTINGS" UUID="705f6e2b-fac6-4f33-8611-d57a9c9f04e1" TYPE="ext4"  
PARTUUID="0006dd3f-05"  
/dev/mmcblk0p6: SEC_TYPE="msdos" LABEL="boot" UUID="1495-189B" TYPE="vfat" PARTUUID="0006dd3f-06"  
/dev/mmcblk0p7: LABEL="root0" UUID="759bca6b-5766-4941-b830-cdbfcd861107" TYPE="ext4"  
PARTUUID="0006dd3f-07"  
/dev/mmcblk0p8: LABEL="boot-rbp2" UUID="200C-EA5B" TYPE="vfat" PARTUUID="0006dd3f-08"  
/dev/mmcblk0p9: LABEL="root-rbp2" UUID="26d10fa3-fe0a-4044-b24a-9b85c2079122" TYPE="ext4"  
PARTUUID="0006dd3f-09"  
/dev/mmcblk0: PTUUID="0006dd3f" PTTYPE="dos"  
/dev/sda: PTUUID="279bf5b4" PTTYPE="dos"
```

In this example, the first 6 items are the SD card that Raspbian booted from **/dev/mmcblk0px**. The last device **/dev/sda** is a USB Hard Disk. This is the disk I want to add to Raspbian.

Now that we know the disk we wish to work on is **/dev/sda** we can use:

```
sudo fdisk /dev/sda
```

```
enter p to display partition information  
Disk /dev/sda: 298.1 GiB, 320072933376 bytes, 625142448 sectors  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x279bf5b4
```

We can see the size is 298.1 GB.

```
Use the d command to delete existing partition  
No partition is defined yet!  
Could not delete partition 81165
```

In this case, there are no partitions to delete

To create a new partition, use:

```
n - This creates a new partition  
p - This is for a primary partition  
Enter - To default to partition 1  
Enter - To select first sector  
Enter - To select last sector.
```

You should now have a new partition.

```
Use the p command again to see your new partition
```

Device	Boot	Start	End	Sectors	Size	Id	Type
/dev/sda1		2048	625142447	625140400	298.1G	83	Linux

Command (m for help): p Device Boot Start End Blocks Id System /dev/sda1 2048 234441647 117219800 83 Linux the changes need to be written to the partition table, so use the w command to commit.

run the fdisk -l command to see your disk which will now include /dev/sda1

Now you can make your file system. Use the mkfs command.

mkfs /dev/sda1 after the superblocks are created and you get a prompt you are ready to mount your disk create a mount point, say you want it to be "mydisk"

mkdir /mydisk now mount it

mount /dev/sda1 /mydisk use df to verify disk is mounted. If you reboot you will need to remount it (you might want to add it to /etc/fstab)

try writing a file to the disk

touch /diskname/test was the file created or did you get an err?

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