

# Software Raid

## Create raid:

Raid levels can be changed with: --level=1 // --level=0 // --level=5

### Raid 1

```
mdadm --create --verbose /dev/md0 --level=1 --raid-devices=2 /dev/sdX /dev/sdX
```

### Raid 5

```
mdadm --create --verbose /dev/md0 --level=5 --raid-devices=3 /dev/sdX /dev/sdX /dev/sdX
```

### Raid 6

```
mdadm --create --verbose /dev/md0 --level=6 --raid-devices=4 /dev/sda /dev/sdX /dev/sdX  
/dev/sdX
```

### Raid 10

```
mdadm --create --verbose /dev/md0 --level=10 --layout=o3 --raid-devices=4 /dev/sdX /dev/sdX  
/dev/sdX /dev/sdX
```

## Stop raid:

```
mdadm --stop /dev/md0
```

## Assemble raid:

```
mdadm -A /dev/mdX /dev/sdaX --run
```

## Adding a drive in a failed raid:

```
mdadm --manage /dev/md0 --add /dev/sdb1
```

## Resize drives after a HDD swap to something larger

```
screen  
resize2fs `mount | grep "on / " | cut -d " " -f 1` && exit
```

Then check with "watch df -h" and watch it go up

## Cloning a partition table

### MBR:

X = Source (old drive), Y = Destination (new drive)

```
sfdisk -d /dev/sdX | sfdisk /dev/sdY --force
```

### GPT:

Install gdisk

The first command copies the partition table of sdX to sdY

```
sgdisk -R /dev/sdY /dev/sdX  
sgdisk -G /dev/sdY
```

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