

=====Hardware requirement=====

Raspberry Pi 4b (Raspberry PI Lite OS)
32G SD-Card
4T SATA HDD + SATA to USB convertor
IP cameras (Reolink wifi camera) \ NOT Cloud managed camera

=====Assume=====

Install Raspberry OS
Connect IP cameras to the network and enable RTSP (streaming)

=====Static IP=====

```
sudo nano /etc/dhcpd.conf
```

```
interface eth0
static ip_address=10.1.1.4/24
static routers=10.1.1.1
static domain_name_servers=10.1.1.1
```

=====recording script=====

Bellow script will record footage 1hr per file and keep 7 days footages

```
nano cam1.sh
```

```
#!/bin/bash
```

```
now=`date '+%Y-%m-%d-%H-%M-%S'`
```

```
ffmpeg -rtsp_transport tcp -i rtsp://username:password@<Camera-IP-address>/live1.sdp
```

```
-t 3600 -vcodec copy /mnt/CCTV01/Cam1/cam1_`now`.mp4
```

```
find /mnt/CCTV01/Cam1 -type f -mtime +7 -exec rm {} \;
```

```
chmod +x cam1.sh
```

```
sudo apt-get install ffmpeg
```

=====auto mount USB Disk=====

```
// find the disk /dev/sdb
```

```
sudo fdisk -l
```

```
// modify the disk and partition
```

```
sudo fdisk /dev/sdb
```

```
    p   print the partition table
```

```
    d   delete a partition
```

```
    n   add a new partition
```

```
//format partition to exfat
```

```
sudo mkfs.exfat -n CCTV01 /dev/sdb1
```

```
//add the disk to auto mount
```

```
sudo blkid
```

```
sudo nano /etc/fstab
UUID=ED3D-D3BB /mnt/CCTV01 exfat auto,nofail,noatime,users,rw,uid=pi,gid=pi 0 0
mkdir /mnt/CCTV01
Chmod 777 /mnt/CCTV01
sudo chown -R pi:pi /mnt/CCTV01
sudo apt install exfat-fuse
reboot
```

=====Samba server=====

```
sudo apt-get install samba samba-common-bin
sudo smbpasswd -a pi
sudo nano /etc/samba/smb.conf
[CCTV01]
Comment = Pi shared folder
Path = /mnt/CCTV01
Browseable = yes
Writeable = Yes
only guest = no
create mask = 0777
directory mask = 0777
Public = yes
Guest ok = yes
force user = pi
force group = pi
```

```
sudo /etc/init.d/samba-ad-dc restart
```

=====Schedule Task=====

```
crontab -e
0 * * * * /home/pi/cam1.sh
0 * * * * /home/pi/cam2.sh
0 * * * * /home/pi/cam3.sh
```