

## Manually Installing an external SSD for the /home Partition

As referenced in the EOS-desktop-instructions PDF, here are the instructions to install an external USB SSD enclosure as your /home directory on your new EndeavourOS SBC.

Install a SSD in a USB 3 enclosure as an external home partition. This SSD can be any size you want. Then this USB 3 SSD can be mounted during boot up in /etc/fstab as /home. This also makes this data easily backed up with rsync along with config files.

Power off the computer and connect a USB 3 external enclosure with a SSD installed.

IMPORTANT: To transfer the contents of /home then empty /home, there should not be anyone logged into a Desktop Environment. Way too many conflicts if someone is logged in.

Boot the computer, at the Desktop Manager, do NOT login.

Press Ctrl-ALT-F2 to open a Console window (tty2).

Login to the console window as root and enter your root password.

```
# lb      (Odroid N2 & RPi4 will look similar to this, Odroid XU4 will have one mmcblk partition)
NAME      FSTYPE   FSSIZE   LABEL   MOUNTPOINT
sda
└─sda1      ext4             XXXXX
mmcblk0
├─mmcblk0p1 vfat      252M     BOOT    /boot
└─mmcblk0p2 ext4      56.8G    ROOT    /
```

/dev/mmcblk0 is our OS device. The /dev/sda is our target device. If the SSD device is brand new and has never been partitioned it may look different. Now we have determined that /dev/sda is our new device (your setup may be different such as /dev/sdb etc)

/dev/sda1 should not show a MOUNTPOINT. It is remotely possible /dev/sda1 will be mounted and show a mount point. If so, we have to un-mount it, and any other partition on /dev/sda that shows up as being mounted. Such as possibly /dev/sda2, /dev/sda3, etc. until all are un-mounted. Of course, do not un-mount anything on mmcblk1.

# umount /dev/sda1 and possibly # umount /dev/sda2 etc. (If necessary)

Next partition the USB SSD as one partition that uses all the space in the SSD  
CAUTION: This WILL erase ALL DATA on your SSD.

```
# fdisk /dev/sda          ( or adjust to /dev/sdb or whatever is relevant )
Command o                (That's lower case o...create a new empty DOS partition table)
Command n                (add a new partition)
  Partition type: p       (p = primary)
  partition number: 1
  First sector: enter to accept default
  Last sector: enter to accept default
  Partition #1 contains a ext4 signature.      (this warning may not appear, if so yes)
  do you want to remove the signature? yes
Command: w                (write table to disk and exit)

# mkfs.ext4 -L HOME /dev/sda1    (format our new partition to ext4, -L HOME is the label)
Now that /dev/sda is partitioned and formatted, we need to mount it on /mnt
# mount -t ext4 /dev/sda1 /mnt
# la /mnt                  (should see the directory lost+found created by mkfs.ext4 )
# rm -rf /mnt/lost+found
# la /mnt                  ( should see lost+found has been removed )
# cp -rp /home/* /var      (make a backup of your current home directory or directories)
# cp -rp /home/* /mnt      (copy contents of home to /mnt using recursive & preserve options)
# la /mnt/username         ( should see the copied contents of home )
# rm -rf /home/*           (empty the original home folder to be used as a mount point)
# la /home                 ( home should be empty, if not repeat above command)
# umount /dev/sda1         ( un-mount /dev/sda1 from mount point /mnt )
# mount -t ext4 /dev/sda1 /home    ( mount /dev/sda1 to now empty home folder)
# la /home/username        ( should see the home directories and dot files )
```

## Modify /etc/fstab

Now that the dirty work is done, finish this up by exiting out of the console window. Switch to the GUI mode by pressing Ctrl-Alt-F7, F6 , or maybe F1. Log into the desktop.

Open a terminal window

\$ su then enter root password

# cp /etc/fstab /etc/fstab.orig (backup fstab)

Find the UUID for the home SSD partition.

# lsblk -f /dev/sda

NAME	FSTYPE	FSVER	LABEL	UUID	FS-AVAIL	FS-USE%	MOUNTPOINT
sda							
└─sda1	ext4	1.0	HOME	b6bd3cd3-c666-4259-9ad9-125a003ff231	221.7G	0%	

you should see /dev/sda1 with a nice label of "HOME" and its UUID number. Highlight the UUID number, then right click and click copy.

Using your favorite text editor, add the following line at the end of the /etc/fstab file

# gedit /etc/fstab &

UUID=PASTE-Your-UUID-Number /home ext4 defaults,noatime 0 2

# mount -a (should show no errors if fstab is correct, if not edit /etc/fstab again)

# lb /dev/sda1 (should show our new /home )

NAME	FSTYPE	FSSIZE	LABEL	MOUNTPOINT
sda1	ext4	457.4G	HOME	/home

Reboot the computer and log into your Desktop.

After reboot, in a terminal window

\$ lb /dev/sda1

NAME	FSTYPE	FSSIZE	LABEL	MOUNTPOINT
sda1	ext4	457.4G	HOME	/home

I would recommend removing the home directory backup(s) from /var.

This frees up storage space and it is better security to not have your home directory in /var.

From now on the home folder will be on the SSD. The SBC device and the USB external SSD enclosure are now married and should always be used together.