

Jeff Geerling

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Format the built-in eMMC storage on an Orange Pi Plus

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To use the built-in 8GB of eMMC storage on the Orange Pi Plus as a writable volume in Linux, you need to delete the existing partitions (I think mine were formatted as FAT/WIN32), create a new partition, format the partition, then mount it:

1. Delete the existing partitions:
 1. `sudo fdisk /dev/mmcblk1`
 2. `p` to list all partitions, then `d` and a number to delete all existing partitions, then `w` to write the changes.
2. Create a new partition:
 1. `sudo fdisk /dev/mmcblk1`
 2. `n` to create a new partition, then use all the defaults, then `w` to write the changes.
3. Format the partition: `sudo mkfs.ext4 -L "emmc" /dev/mmcblk1p1`
4. Create a mount point: `sudo mkdir /emmc`
5. Mount the disk: `mount /dev/mmcblk1p1 /emmc`

Further reading

- [Mounting a Raspberry Pi's ext4 SD card on Ubuntu 14.04 inside VirtualBox on Mac OS X](#)
- [Mount a Raspberry Pi SD card on a Mac \(read-only\) with osxfuse and ext4fuse](#)
- [Orange Pi Plus Setup, Benchmarks, and Initial Impressions](#)

orange pi emmc format fdisk partition mount linux debian

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Comments

sandip patil – 2 years ago

hello Jeff,

thanks for the blog. it's very usefull. I am tried it & worked fine. now i am trying to install linux on orangepi emmc. i booted from sd card & tried to dd Lubuntu.img to emmc. i am able to write image on emmc but its not booting. can you please tell me that, how can install linux on emmc & boot from it?

thnk you.

[reply](#)

AJ Porfirio – 2 years ago

thanks! worked!

[reply](#)

Manuel Medrano – 2 years ago

Hi Jeff I have an Orange Pi Pc Plus working (very nice) but I have installed on the EMMC Flash an android from youtube:

<https://www.youtube.com/watch?v=EZOzLwynu4Q>. The problem is I am not very good at Linux/Android and I'd like to be able to uninstall it in order tu use it for diferent proyects. I have written to the person who put it on youtube but I have not had any answer. I wonder if you would be so kind as to take a look at it and tell me how to do it - that is to uninstall it -

I thank you in advance (even if you don't answer) I understand that you may by a bussy person and me, an old 71 Y.O retired, trying to keep up with times hahaha.

Excuse if my English is not the best (this is not a translation) I lived in the UK for nine years but too long ago. I live now in my home

town Seville - Spain.
Anyway thanks again and I godbless:
Manuel Medrano.

[reply](#)

strikerbest – 2 years ago

```
orangepi@OrangePI:~$ sudo mkfs.ext4 -L "emmc" /dev/mmcblk1p1
sudo: unable to resolve host OrangePI
mke2fs 1.42.12 (29-Aug-2014)
Discarding device blocks: done
Creating filesystem with 3816704 4k blocks and 954720 inodes
Filesystem UUID: caef44cd-42e1-4fcb-a4e3-7c369b567028
Superblock backups stored on blocks:
32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208
```

```
Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
orangepi@OrangePI:~$ sudo mkdir /emmc
sudo: unable to resolve host OrangePI
mkdir: cannot create directory '/emmc': File exists
orangepi@OrangePI:~$ sudo mkdir /emmc
sudo: unable to resolve host OrangePI
mkdir: cannot create directory '/emmc': File exists
orangepi@OrangePI:~$ sudo mkdir/emmc
sudo: unable to resolve host OrangePI
sudo: mkdir/emmc: command not found
orangepi@OrangePI:~$ mount /dev/mmcblk1p1 /emmc
mount: only root can do that
```

Why?

[reply](#)

Jeff Geerling – 2 years ago

You need to run the `mount` command as `sudo` (so `sudo mount...`). Also, all those other errors (`File exists` and `command not found`) are just saying that you already created the `/emmc` directory.

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