

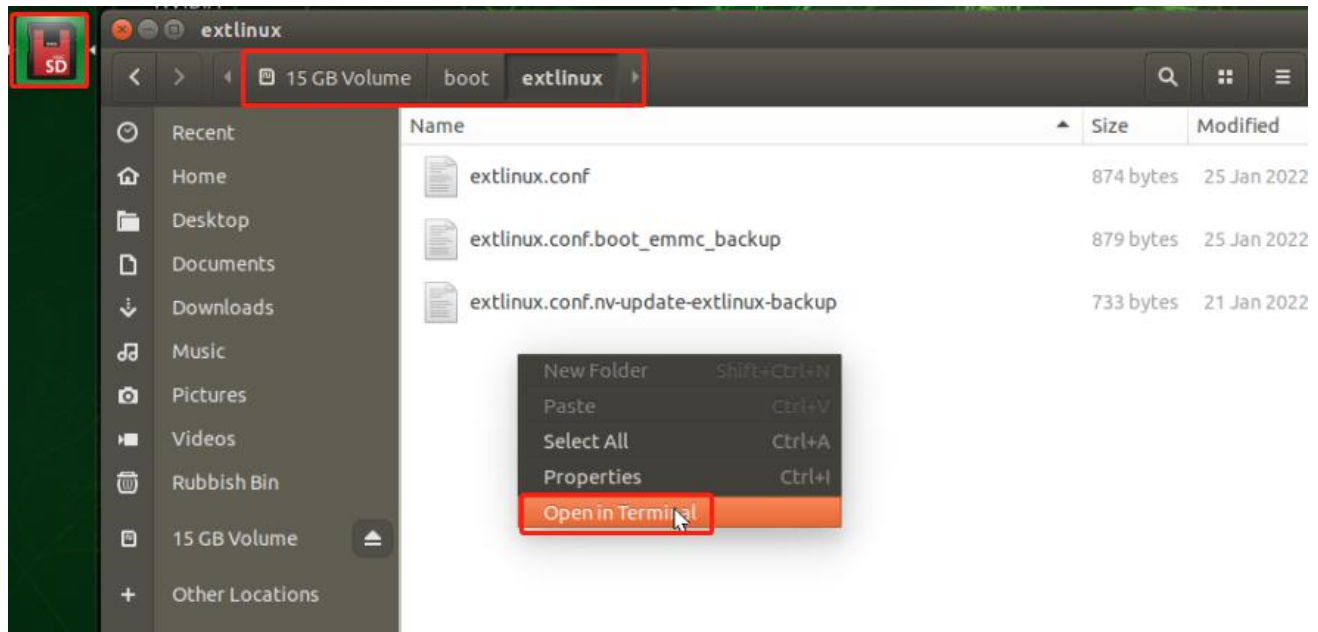
There are two cases for restoring EMMC startup.

Case1: The U disk system can be started normally

Case2: The U disk cannot be started, or there is no U disk.

1. Operation with U disk system start up

1.1 Boot the Jetson Nano into the system. Find the 15GB Volume (the volume of EMMC) in the startup bar on the left, and click to enter the “boot->extlinux” directory.



1.2 Right-click the blank space to open the terminal, and enter the following command to check whether it is currently in the EMMC partition.

df -h

```
jetson@Transbot: /media/jetson/1f7a7947-2dc6-4c73-abf7-70fe84f090d5/boot/extlinux
jetson@Transbot: /media/jetson/1f7a7947-2dc6-4c73-abf7-70fe84f090d5/boot/extlinux$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda1        21G   20G  337M  99% /
none            1.8G     0  1.8G   0% /dev
tmpfs            2.0G   88K  2.0G   1% /dev/shm
tmpfs            2.0G   29M  2.0G   2% /run
tmpfs            5.0M   4.0K  5.0M   1% /run/lock
tmpfs            2.0G     0  2.0G   0% /sys/fs/cgroup
tmpfs            397M  128K  397M   1% /run/user/1000
/dev/mmcblk0p1   14G   4.7G   8.4G  37% /media/jetson/1f7a7947-2dc6-4c73-abf7-70fe84f090d5
jetson@Transbot: /media/jetson/1f7a7947-2dc6-4c73-abf7-70fe84f090d5/boot/extlinux$
```

Find the Mounted on mount point corresponding to `/dev/mmcblk0p1` in the Filesystem column. It is normal if it is consistent with the actual path.

1.3 Input the following command to open and modify the extlinux.conf file

sudo vim extlinux.conf

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sudo vim extlinux.conf

```
jetson@jetson-desktop:/boot/extlinux$ sudo vim extlinux.conf
jetson@jetson-desktop:/boot/extlinux$
```

Press i key to enter edit mode, find `root=/dev/sda1` in the column of LABEL primary, and modify it to `root=/dev/mmcblk0p1`

```
TIMEOUT 30
DEFAULT primary

MENU TITLE L4T boot options

LABEL primary
    MENU LABEL primary kernel
    LINUX /boot/Image
    INITRD /boot/initrd
    APPEND ${cbootargs} quiet root=/dev/mmcblk0p1 rw rootwait rootfstype=ext4
console=ttyS0,115200n8 console=tty0 fbcon=map:0 net.ifnames=0 sdhci_tegra.en_boot_part_access=1

# When testing a custom kernel, it is recommended that you create a backup of
# the original kernel and add a new entry to this file so that the device can
# fallback to the original kernel. To do this:
#
# 1, Make a backup of the original kernel
#     sudo cp /boot/Image /boot/Image.backup
#
# 2, Copy your custom kernel into /boot/Image
#
# 3, Uncomment below menu setting lines for the original kernel
:wq
```

1.5 Exit and save. Press ESC to exit edit mode, then enter :wq and press Enter to save and exit.

1.6 After restarting the Jetson Nano, it will automatically boot from EMMC regardless of whether the U disk is inserted or not.

2. Operation without U disk

When we do not insert the U disk or the U disk system cannot be started, the system will fail to start directly and enter the bash interface.

At this point, we need to manually mount the system in EMMC and modify it to start the EMMC system.

```
[ 1.133652] tegradc tegradc.1: dpd enable lookup fail:-19
[ 1.340965] imx219 7-0010: imx219_board_setup: error during i2c read probe (-121)
[ 1.341107] imx219 7-0010: board setup failed
[ 1.365286] imx219 8-0010: imx219_board_setup: error during i2c read probe (-121)
[ 1.365356] imx219 8-0010: board setup failed
bash: cannot set terminal process group (-1): Inappropriate ioctl for device
bash: no job control in this shell
bash-4.4# _
```

1) mount /dev/mmcblk0p1 to /mnt

mount /dev/mmcblk0p1 /mnt

2) Restore the backup extlinux.conf.boot_emmc_backup to extlinux.confcd /mnt/boot/extlinux

cp extlinux.conf.boot_emmc_backup extlinux.conf

```
[ 1.133652] tegradc tegradc.1: dpd enable lookup fail:-19
[ 1.340965] imx219 7-0010: imx219_board_setup: error during i2c read probe (-121)
[ 1.341107] imx219 7-0010: board setup failed
[ 1.365286] imx219 8-0010: imx219_board_setup: error during i2c read probe (-121)
[ 1.365356] imx219 8-0010: board setup failed
bash: cannot set terminal process group (-1): Inappropriate ioctl for device
bash: no job control in this shell
bash-4.4# mount /dev/mmcblk0p1 /mnt
bash-4.4# cd /mnt/boot/extlinux/
bash-4.4# ls
extlinux.conf  extlinux.conf.boot_emmc_backup  extlinux.conf.nv-update-extlinux-backup
bash-4.4# cp extlinux.conf.boot_emmc_backup extlinux.conf
bash-4.4#
```

Turn off the power of Jetson Nano, restart it will automatically enter the EMMC system.