TF card expand capacity

This tutorial applies to motherboards that boot from either an SSD or SD card. All steps are the same!

Note:

1. The system image file provided by Yahboom is compressed to facilitate downloading and replacing drives of different capacities (TF cards, USB flash drives, SSDs, etc.). If the actual drive capacity does not match the actual drive, you can follow this tutorial to expand it.
2. This tutorial uses the Raspberry Pi board as a demonstration, and the RDK board is also applicable to this tutorial. The actual capacity of the TF card you receive will depend on the device you actually use.

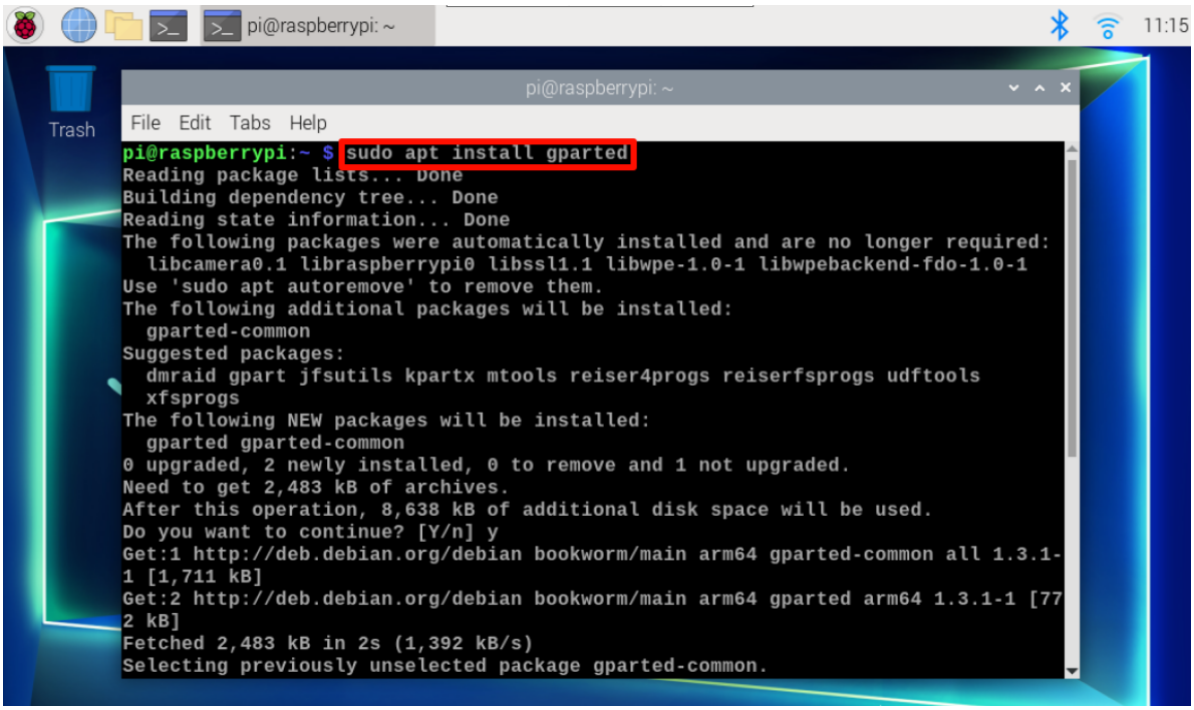
GParted

GParted (Gnome Partition Editor) is a powerful graphical partition management tool, mainly used to manage disk partitions.

```
Linux systems can use this tool to manage disks
```

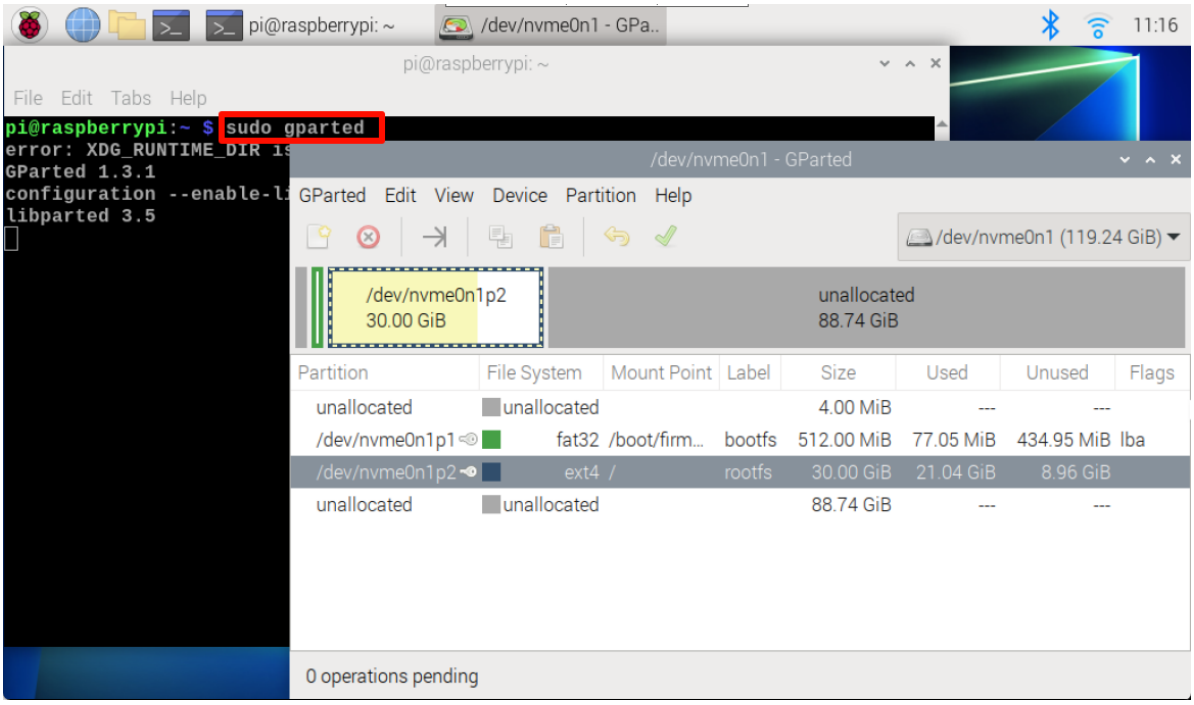
Install GParted

```
sudo apt install gparted
```



Start GParted

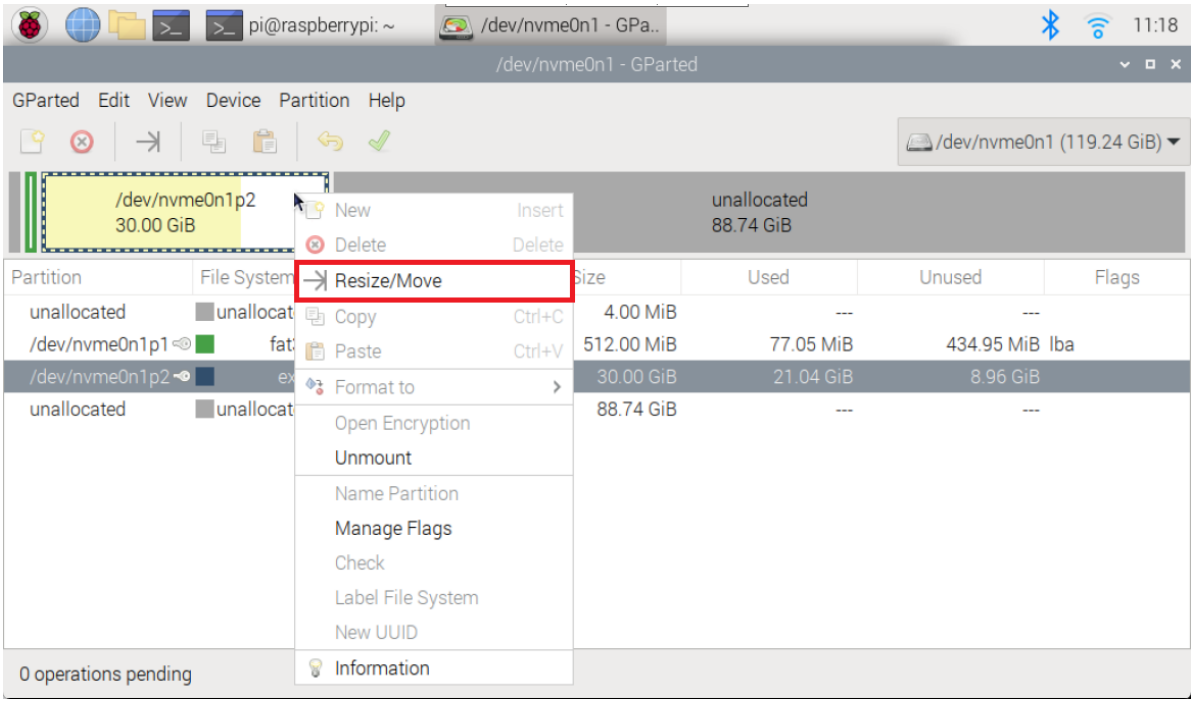
```
sudo gparted
```



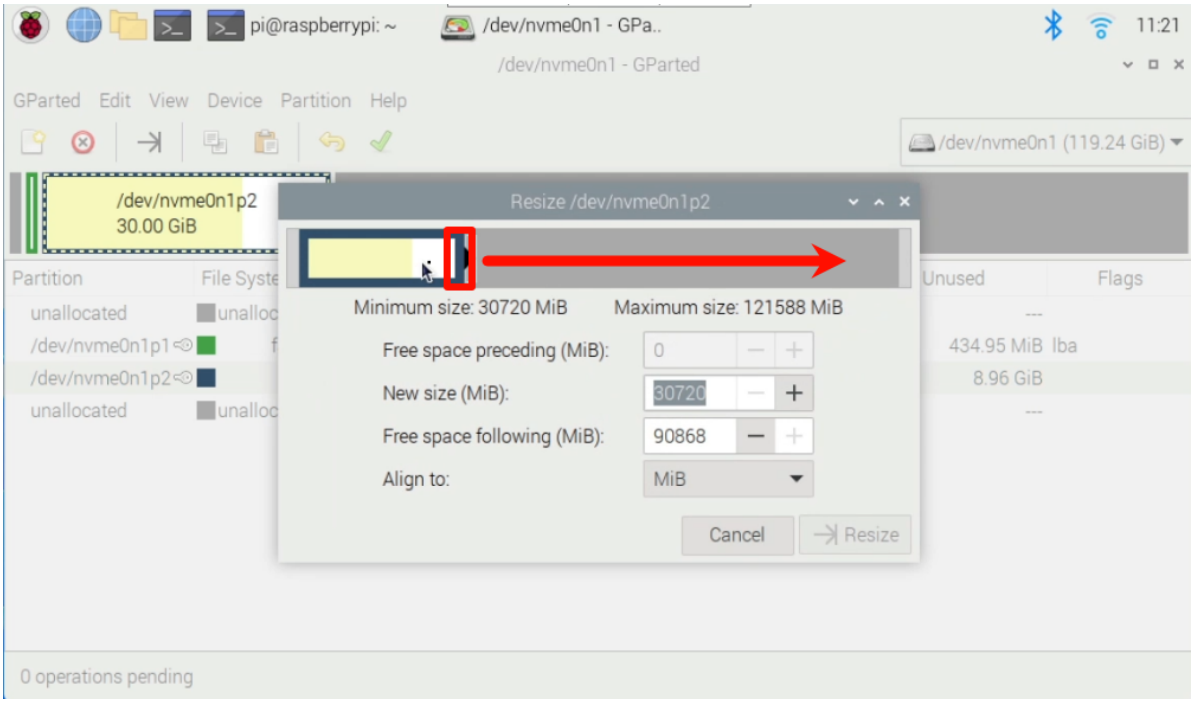
Expand capacity

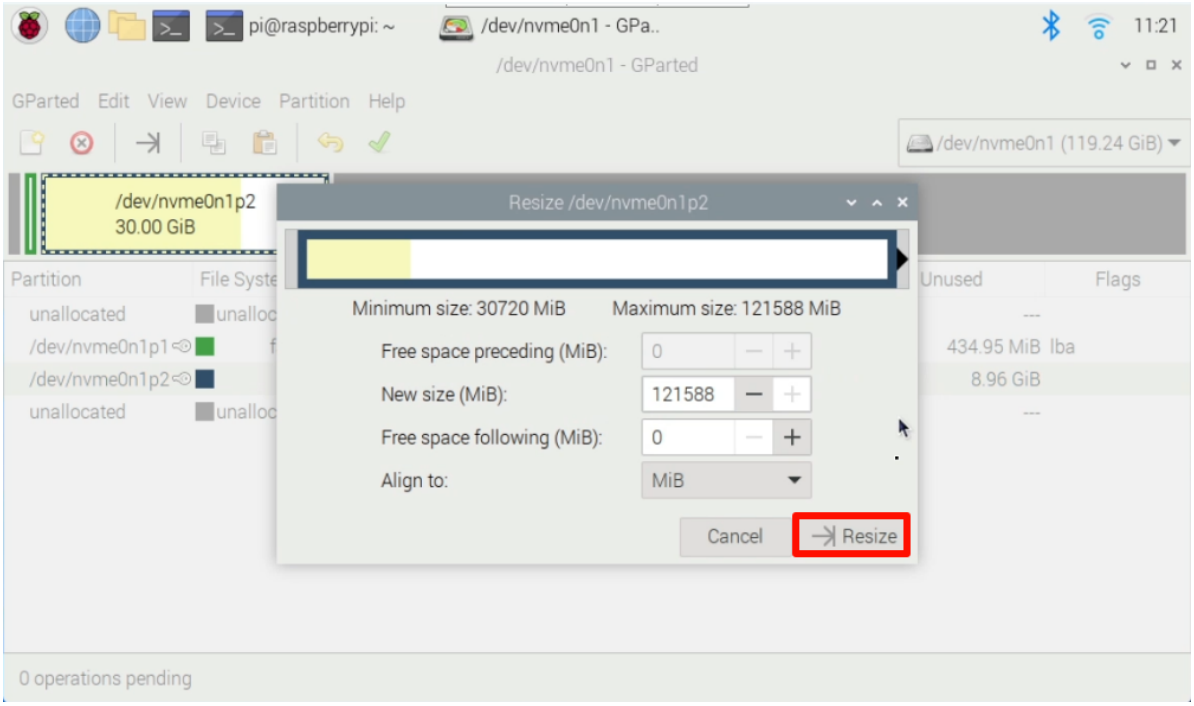
Right click on the disk(TF card) to allocate space and select "Resize/Move" to adjust the partition.

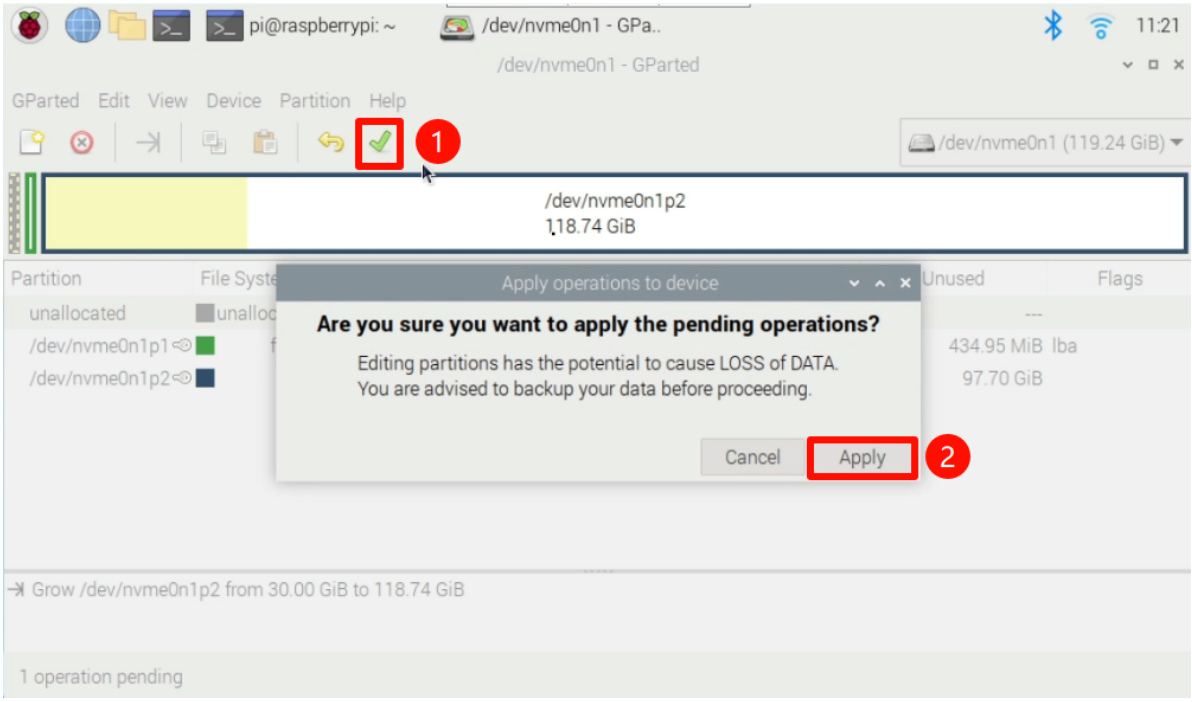
该方法只能扩容，不可以压缩空间！

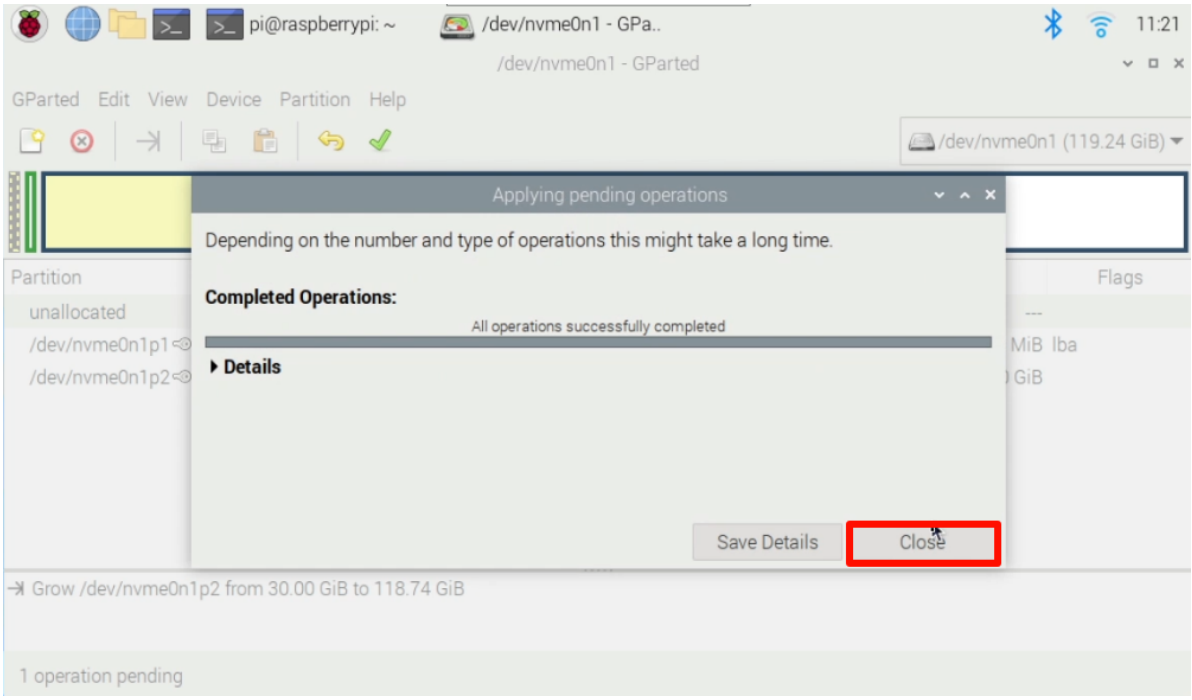


Drag the slider to adjust the partition:


pi@raspberrypi: ~
/dev/nvme0n1 - GPa..
11:21
/dev/nvme0n1 - GParted
GParted Edit View Device Partition Help
/dev/nvme0n1 (119.24 GiB)
/dev/nvme0n1p2
30.00 GiB
Resize /dev/nvme0n1p2
Minimum size: 30720 MiB
Maximum size: 121588 MiB
Free space preceding (MiB): 0
New size (MiB): 30720
Free space following (MiB): 90868
Align to: MiB
Cancel
Resize
Partition
File Syste
Unused
Flags
unallocated
/dev/nvme0n1p1
/dev/nvme0n1p2
unallocated
434.95 MiB lba
8.96 GiB
0 operations pending

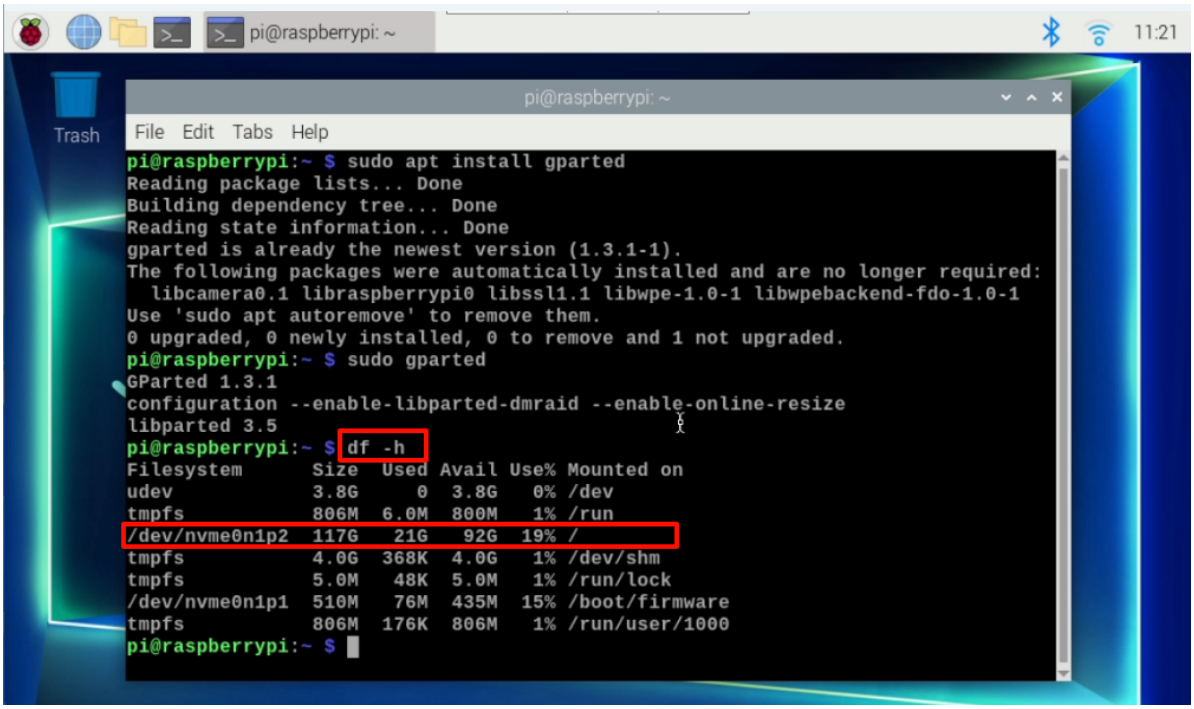

pi@raspberrypi: ~
/dev/nvme0n1 - GPa..
11:21
/dev/nvme0n1 - GParted
GParted Edit View Device Partition Help
/dev/nvme0n1 (119.24 GiB)
/dev/nvme0n1p2
30.00 GiB
Resize /dev/nvme0n1p2
Minimum size: 30720 MiB
Maximum size: 121588 MiB
Free space preceding (MiB): 0
New size (MiB): 121588
Free space following (MiB): 0
Align to: MiB
Cancel
Resize
Partition
File Syste
Unused
Flags
unallocated
/dev/nvme0n1p1
/dev/nvme0n1p2
unallocated
434.95 MiB lba
8.96 GiB
0 operations pending

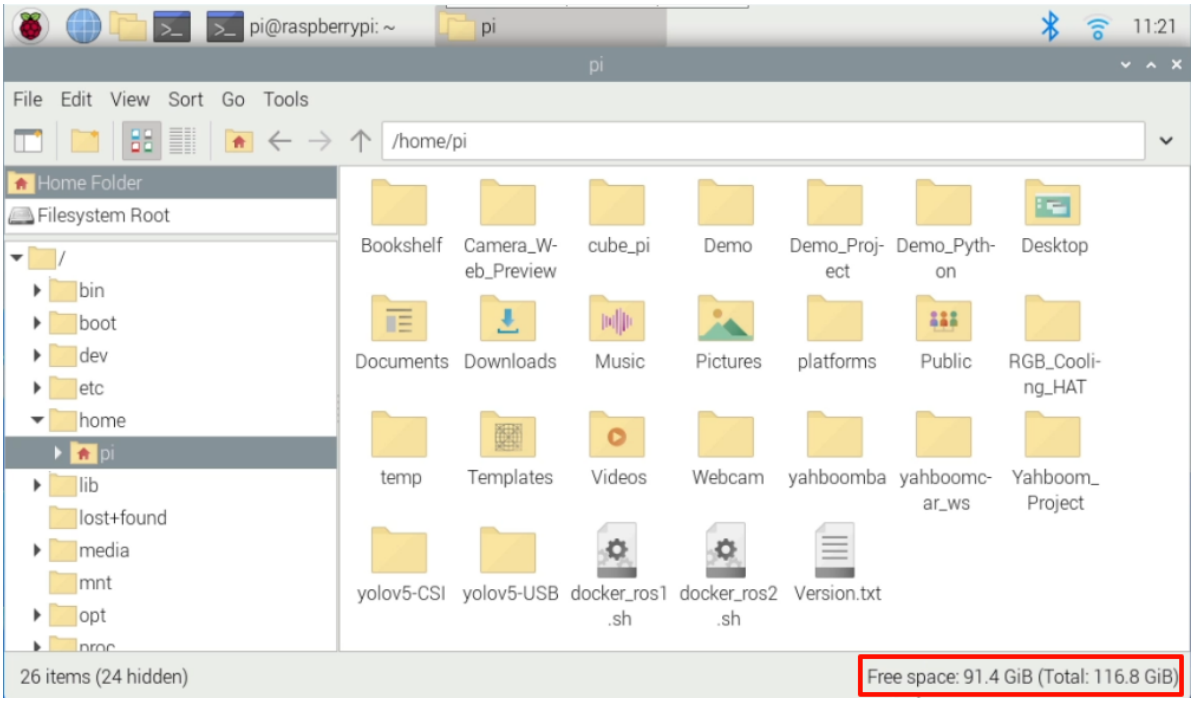




View partition size

After completing the disk(TF card) expansion, the newly allocated disk space can be seen in the system.


pi@raspberrypi: ~
11:21
Trash
pi@raspberrypi: ~
File Edit Tabs Help
pi@raspberrypi:~ $ sudo apt install gparted
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gparted is already the newest version (1.3.1-1).
The following packages were automatically installed and are no longer required:
libcamera0.1 libraspberrypi0 libssl1.1 libwpe-1.0-1 libwpebackend-fdo-1.0-1
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
pi@raspberrypi:~ $ sudo gparted
GParted 1.3.1
configuration --enable-libparted-dmraid --enable-online-resize
libparted 3.5
pi@raspberrypi:~ $ df -h
Filesystem Size Used Avail Use% Mounted on
udev 3.8G 0 3.8G 0% /dev
tmpfs 806M 6.0M 800M 1% /run
/dev/nvme0n1p2 117G 21G 92G 19% /
tmpfs 4.0G 368K 4.0G 1% /dev/shm
tmpfs 5.0M 48K 5.0M 1% /run/lock
/dev/nvme0n1p1 510M 76M 435M 15% /boot/firmware
tmpfs 806M 176K 806M 1% /run/user/1000
pi@raspberrypi:~ $


pi@raspberrypi: ~
pi
11:21
pi
File Edit View Sort Go Tools
/home/pi
Home Folder
Filesystem Root
/
bin
boot
dev
etc
home
pi
lib
lost+found
media
mnt
opt
proc
Bookshelf
Camera_Web_Preview
cube_pi
Demo
Demo_Project
Demo_Python
Desktop
Documents
Downloads
Music
Pictures
platforms
Public
RGB_Cooling_HAT
temp
Templates
Videos
Webcam
yahboomba
yahboomcar_ws
Yahboom_Project
yolov5-CSI
yolov5-USB
docker_ros1.sh
docker_ros2.sh
Version.txt
26 items (24 hidden)
Free space: 91.4 GiB (Total: 116.8 GiB)