

# Disk expansion

## Disk expansion

GParted

Install GParted

Start GParted

Disk expansion

View the partition size

The tutorial is applicable to motherboards that boot the system with SSD and SD card, and all operation steps are the same!

Note: The factory image system will be compressed to facilitate users to download and replace disks of different capacities (SD card, USB flash drive, SSD, etc.). If the user finds that the disk space does not match the actual disk, he can follow the tutorial to expand the capacity.

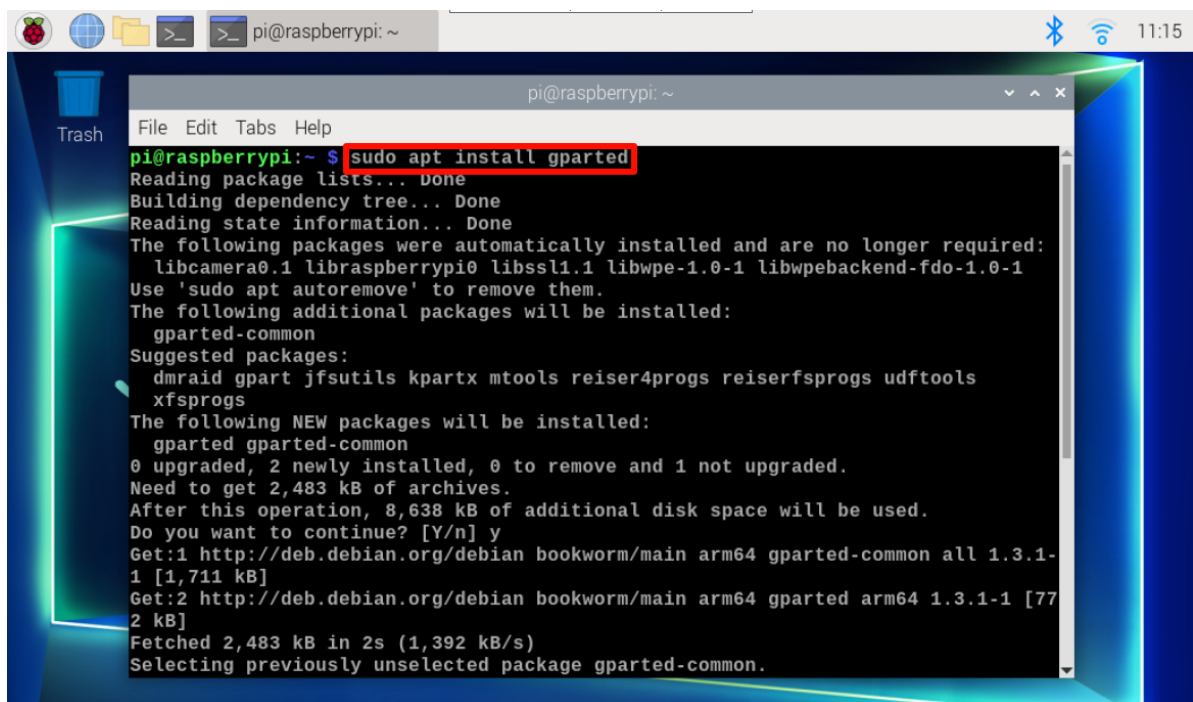
## GParted

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

This tool can be used to manage disks in any Linux system

## Install GParted

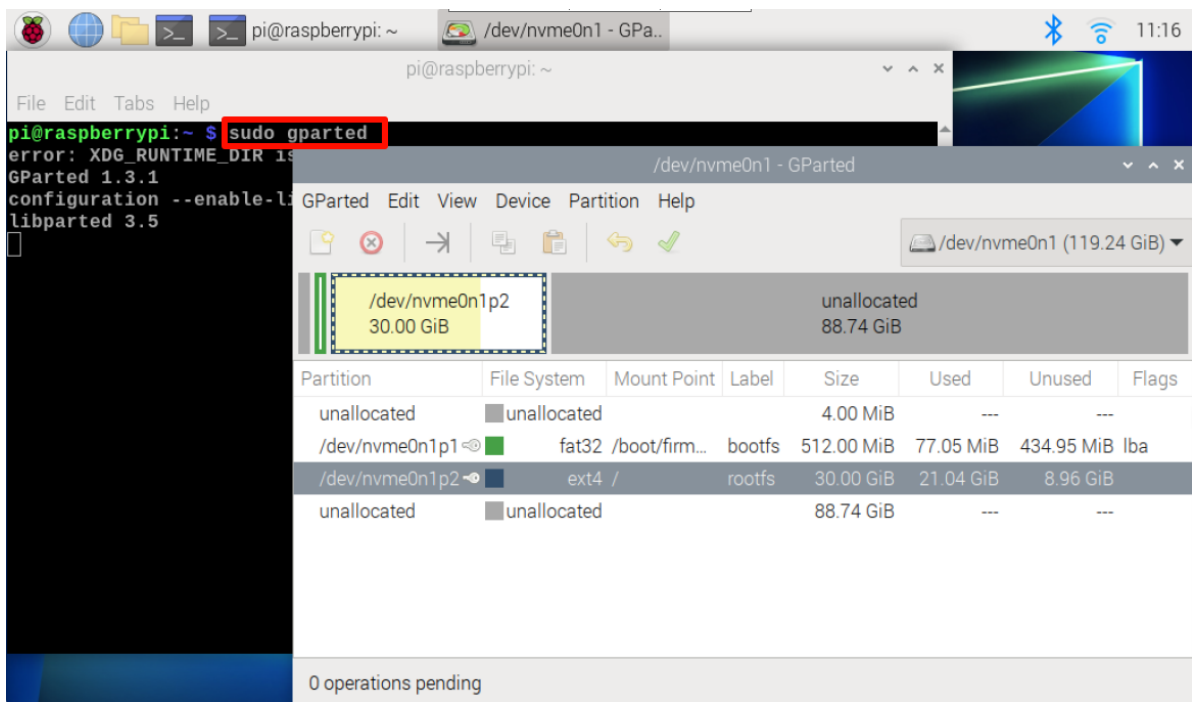
```
sudo apt install gparted
```



```
pi@raspberrypi: ~  
File Edit Tabs Help  
pi@raspberrypi:~$ sudo apt install gparted  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
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.  
The following additional packages will be installed:  
  gparted-common  
Suggested packages:  
  dmraid gpart jfsutils kpartx mtools reiser4progs reiserfsprogs udftools  
  xfsprogs  
The following NEW packages will be installed:  
  gparted gparted-common  
0 upgraded, 2 newly installed, 0 to remove and 1 not upgraded.  
Need to get 2,483 kB of archives.  
After this operation, 8,638 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://deb.debian.org/debian bookworm/main arm64 gparted-common all 1.3.1-1 [1,711 kB]  
Get:2 http://deb.debian.org/debian bookworm/main arm64 gparted arm64 1.3.1-1 [772 kB]  
Fetched 2,483 kB in 2s (1,392 kB/s)  
Selecting previously unselected package gparted-common.
```

# Start GParted

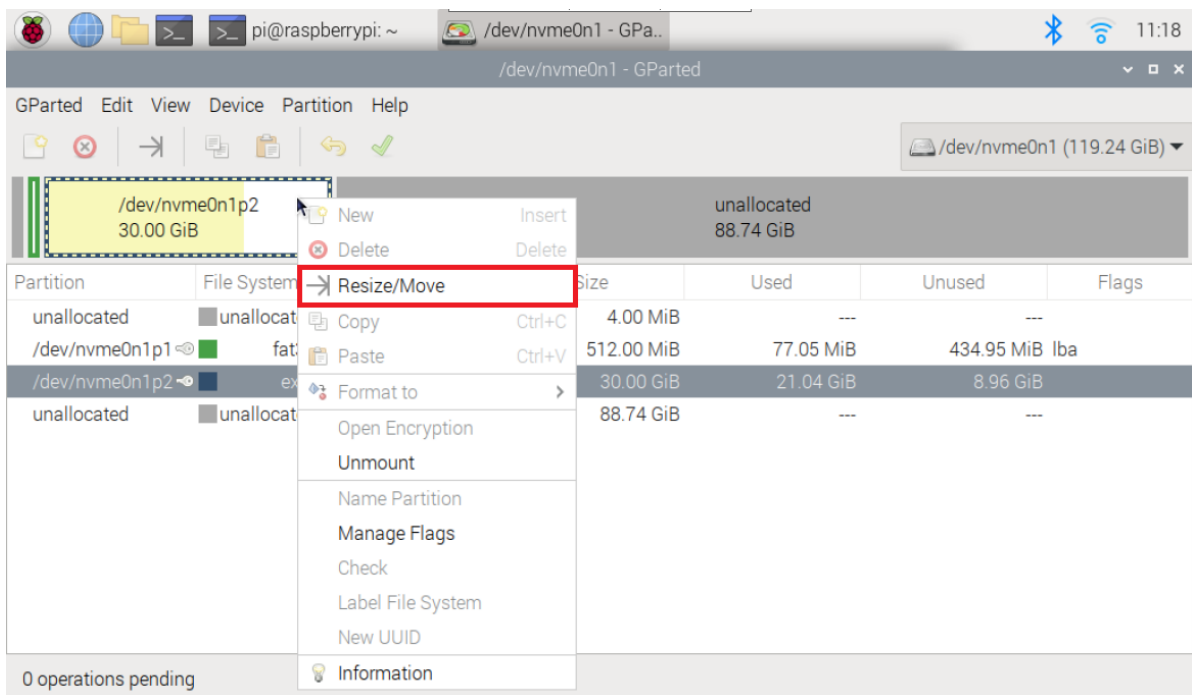
```
sudo gparted
```



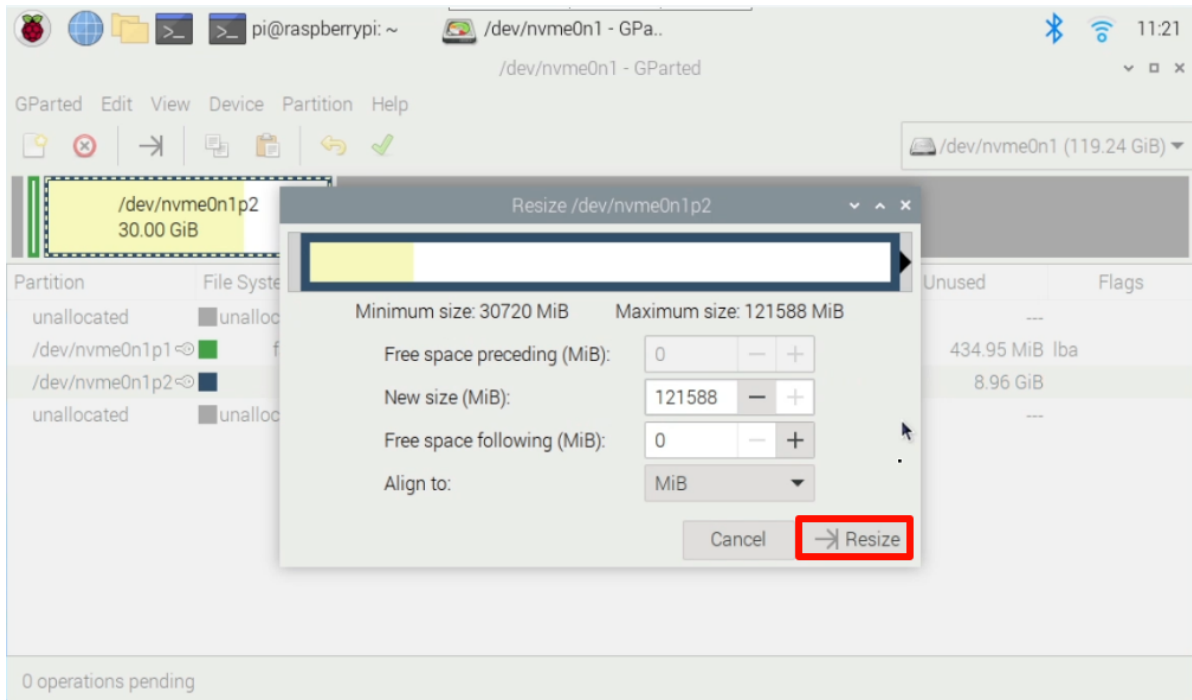
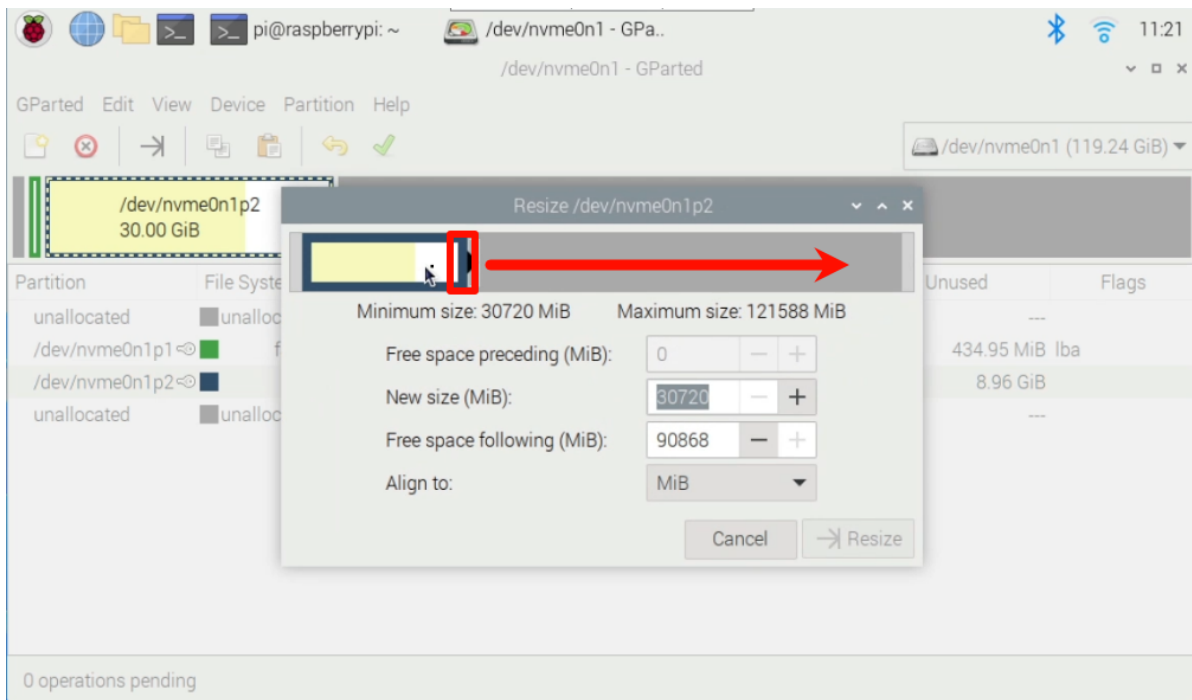
## Disk expansion

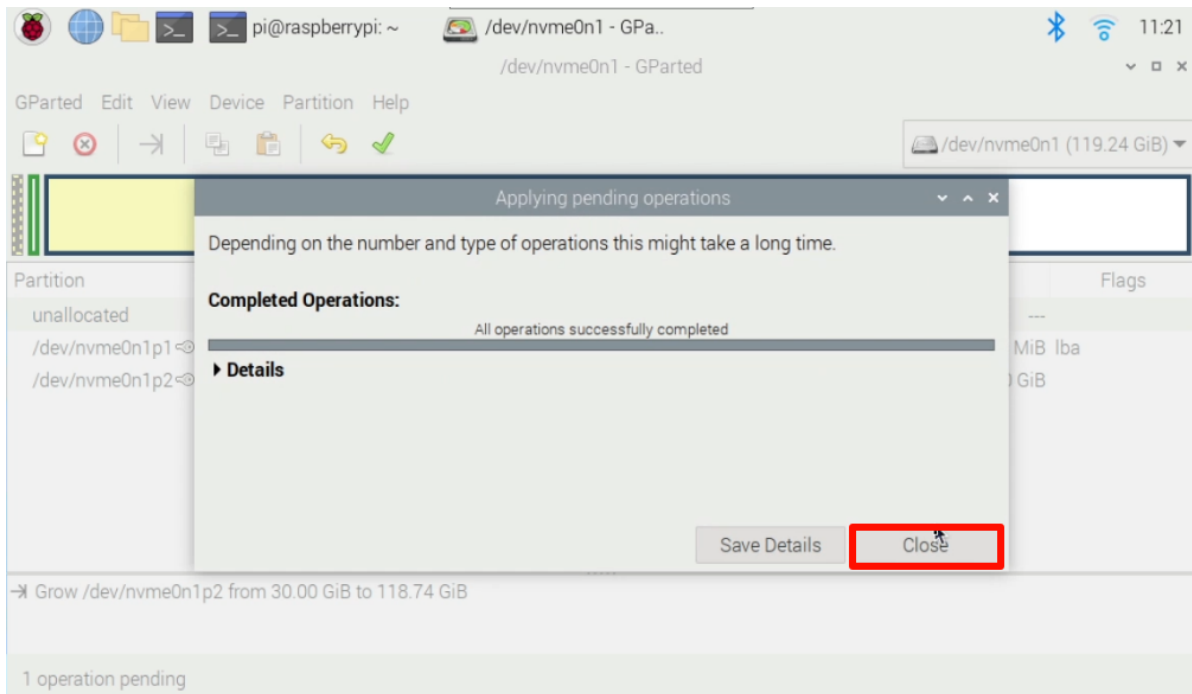
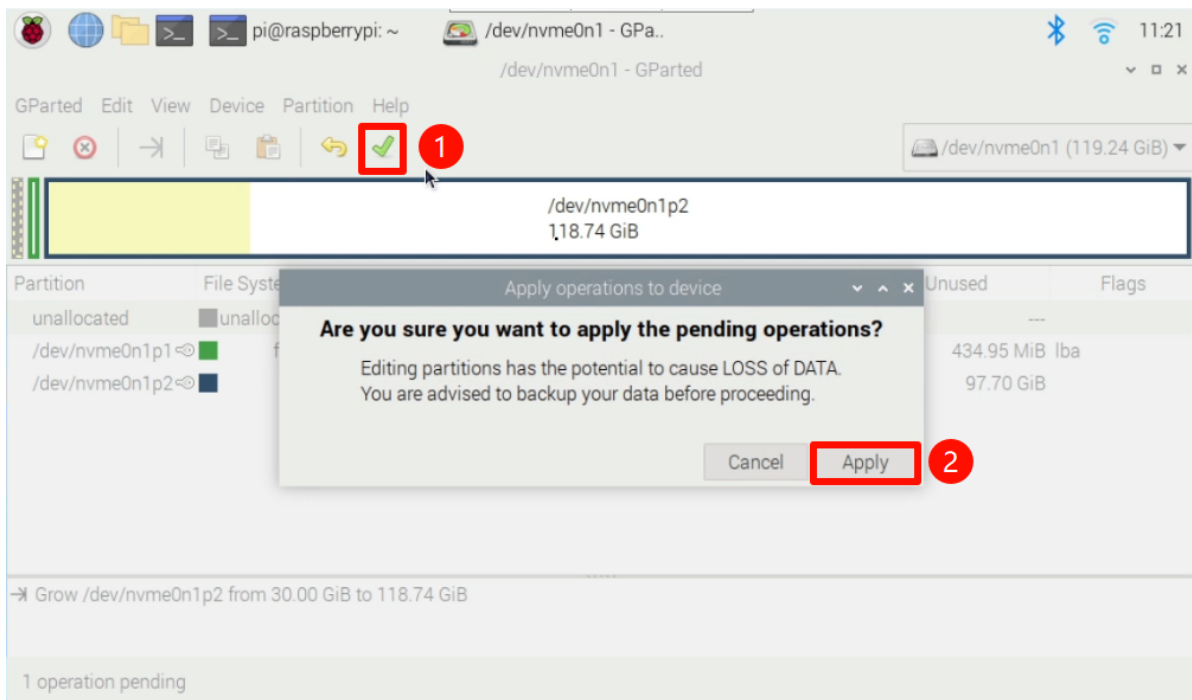
Right-click the disk to allocate space, select "Resize/Move" to adjust the partition size:

This method can only expand capacity, not compress space!



Drag the slider to adjust the partition size:





## View the partition size

After completing the disk expansion, you can see the newly allocated disk space in the system.

```
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:~$
```

