

# INSTALL DOCKER + NVIDIA GPU

## Docker

Official page:

<https://docs.docker.com/engine/install/ubuntu/#install-using-the-repository>

Install using the apt repository

# Add Docker's official GPG key:

```
sudo apt-get update
```

```
sudo apt-get install ca-certificates curl
```

```
sudo install -m 0755 -d /etc/apt/keyrings
```

```
sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc
```

```
sudo chmod a+r /etc/apt/keyrings/docker.asc
```

# Add the repository to Apt sources:

```
echo \
```

```
"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc]
```

```
https://download.docker.com/linux/ubuntu \
```

```
$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
```

```
sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

```
sudo apt-get update
```

With specific version

# List the available versions:

```
apt-cache madison docker-ce | awk '{ print $3 }'
```

```
5:27.1.1-1~ubuntu.24.04~noble
```

```
5:27.1.0-1~ubuntu.24.04~noble
```

```
...
```

Example:

```
VERSION_STRING=5:27.1.1-1~ubuntu.24.04~noble
```

```
sudo apt-get install docker-ce=$VERSION_STRING docker-ce-cli=$VERSION_STRING  
containerd.io docker-buildx-plugin docker-compose-plugin
```

If you are using a distribution based on Ubuntu, you probably will run in to a problem, since there is no package available for other distributions that are not Ubuntu.

Fortunately, these have an easy solve. You only have to replace the version of your OS with the Ubuntu version that is using.

### **Example:**

Using Linux Mint based on Ubuntu jammy

```
$ sudo apt update
```

```
Err:8 https://download.docker.com/linux/ubuntu virginia Release 404 Not Found [IP: 3.160.231.8  
443]
```

```
$ sudo nano /etc/apt/sources.list.d/docker.list
```

### **DELETE**

```
deb [arch=amd64 signed-by=/usr/share/keyrings/docker-archive-keyring.gpg]  
https://download.docker.com/linux/ubuntu virginia stable
```

### **ADD**

```
deb [arch=amd64 signed-by=/usr/share/keyrings/docker-archive-keyring.gpg]  
https://download.docker.com/linux/ubuntu jammy stable
```

Note: you can check your Ubuntu version with: `$ lsb_release -cs`

## **NVIDIA install**

Install the official drivers for NVIDIA.

Install NVIDIA Container Toolkit

Official link: <https://docs.nvidia.com/datacenter/cloud-native/container-toolkit/latest/install-guide.html>

## Installing with Apt\_

1. Configure the production repository:

```
curl -fsSL https://nvidia.github.io/libnvidia-container/gpgkey | sudo gpg --  
dearmor -o /usr/share/keyrings/nvidia-container-toolkit-keyring.gpg \  
&& curl -s -L https://nvidia.github.io/libnvidia-container/stable/deb/nvidia-  
container-toolkit.list | \  
sed 's#deb https://#deb [signed-by=/usr/share/keyrings/nvidia-container-  
toolkit-keyring.gpg] https://#g' | \  
sudo tee /etc/apt/sources.list.d/nvidia-container-toolkit.list
```

Optionally, configure the repository to use experimental packages:

```
sed -i -e '/experimental/ s/^#//g' /etc/apt/sources.list.d/nvidia-container-  
toolkit.list
```

Update the packages list from the repository:

```
sudo apt-get update
```

• Install the NVIDIA Container Toolkit packages:

```
sudo apt-get install -y nvidia-container-toolkit
```

## Configuring Docker\_

1. Configure the container runtime by using the `nvidia-ctk` command:

```
sudo nvidia-ctk runtime configure --runtime=docker
```

• The `nvidia-ctk` command modifies the `/etc/docker/daemon.json` file on the host. The file is updated so that Docker can use the NVIDIA Container Runtime.

• Restart the Docker daemon:

```
sudo systemctl restart docker
```

Check:

```
sudo docker run --rm --runtime=nvidia --gpus all ubuntu nvidia-smi
```