

# Install Docker Ubuntu



how to install docker in ubuntu

Here's a step-by-step guide to install **Docker** on **Ubuntu** (works for Ubuntu 20.04, 22.04, and later):

## 1. Update your system

```
bash

sudo apt update
sudo apt upgrade -y
```

## 2. Uninstall old versions (if any)

```
bash

sudo apt remove docker docker-engine docker.io containerd runc
```

## 3. Install required dependencies

```
bash

sudo apt install -y apt-transport-https ca-certificates curl software-properties-common
```

## 4. Add Docker's official GPG key

```
bash

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o
/usr/share/keyrings/docker.gpg
```

## 5. Set up the Docker repository

```
bash

echo \
"deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker.gpg]
https://download.docker.com/linux/ubuntu \
$(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

## 6. Install Docker Engine

```
bash

sudo apt update
sudo apt install -y docker-ce docker-ce-cli containerd.io
```

## 7. Check Docker version

```
bash

docker --version
```

## 8. Enable and start Docker

```
bash

sudo systemctl enable docker
sudo systemctl start docker
```

## 9. (Optional) Run Docker without sudo

```
bash

sudo usermod -aG docker $USER
```

👉 Log out and log back in for this to take effect.

## 10. Test Docker

```
bash

docker run hello-world
```

If you see the “Hello from Docker!” message, Docker is installed successfully 🎉.

👉 Do you also want me to include steps for installing **Docker Compose** (often needed for multi-container apps)?



Using default tag: latest  
 permission denied while trying to connect to the Docker daemon socket at  
 unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.51/images/create?  
 fromImage=docker.io%2Flibrary%2Fhello-world&tag=latest": dial unix /var/run/docker.sock:  
 connect: permission denied

Ah! That error happens because your user **doesn't have permission** to access the Docker daemon. By default, only **root** (or users in the **docker** group) can run Docker commands.

Here's how to fix it:

---

## 1. Add your user to the docker group

```
bash

sudo usermod -aG docker $USER
```

- **\$USER** is your current username.
  - This adds your user to the **docker** group, which has permission to access Docker.
- 

## 2. Log out and log back in

- You need to **log out and back in** (or restart the session) for group changes to take effect.
- You can check with:

```
bash

groups
```

- You should see **docker** listed.
- 

## 3. Test Docker without sudo

```
bash

docker run hello-world
```

It should now work without the **permission denied** error.

---

✅ **Alternative:** You can also run Docker with **sudo**:

```
bash

sudo docker run hello-world
```

...but adding your user to the **docker** group is more convenient.

---

If you want, I can show a **quick one-liner** to fix this immediately without logging out. Do you want me to do that?



```
permission denied while trying to connect to the Docker daemon socket at
unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.51/containers/json":
dial unix /var/run/docker.sock: connect: permission denied
```

solve this

Got it 👍 That error means your user still doesn't have access to the Docker socket at `/var/run/docker.sock`. Let's go step by step to solve it:

## ✓ Fix: Add user to Docker group & reload session

### 1. Add your user to the docker group (if you haven't already):

```
bash

sudo usermod -aG docker $USER
```

### 2. Apply the new group membership without rebooting:

```
bash

newgrp docker
```

This reloads your shell with the updated group membership.

### 3. Verify you're in the docker group:

```
bash

groups
```

You should see `docker` in the list.

### 4. Test again:

```
bash

docker ps
```

or

```
bash

docker run hello-world
```

## If it still doesn't work

### A. Check Docker socket permissions

```
bash

ls -l /var/run/docker.sock
```

Expected output (the group should be **docker**):

```
arduino

srw-rw---- 1 root docker 0 Sep  4 12:34 /var/run/docker.sock
```

If the group is wrong, fix it:

```
bash

sudo chown root:docker /var/run/docker.sock
sudo chmod 660 /var/run/docker.sock
```

### B. Restart Docker

```
bash

sudo systemctl restart docker
```

After this, try:

```
bash

docker ps
```

 Do you want me to give you a **single script you can copy-paste** that applies all these fixes at once?