

## Software Installation Guide for Jetson Orin Nano Developer Kit and Jetbot images

Prepared by: Mutaz Khairalla

This manual is based on [NVIDIA Jetson Orin Nano Developer Kit User Guide - Software Setup](#).

- First needs to download and install SDK Manager in Ubuntu machine (refer to the following link: <https://developer.nvidia.com/sdk-manager> ). Note that, you may need NVIDIA developer account.
- Jetson Orin Nano needs to be connected to host computer using USB-C cable.
- Before on using DC power jack, FC REC and GND in 12-pin header needs to be shorted using jumper or female-female wire as shown in Figure 1. (Pin10 and 11)

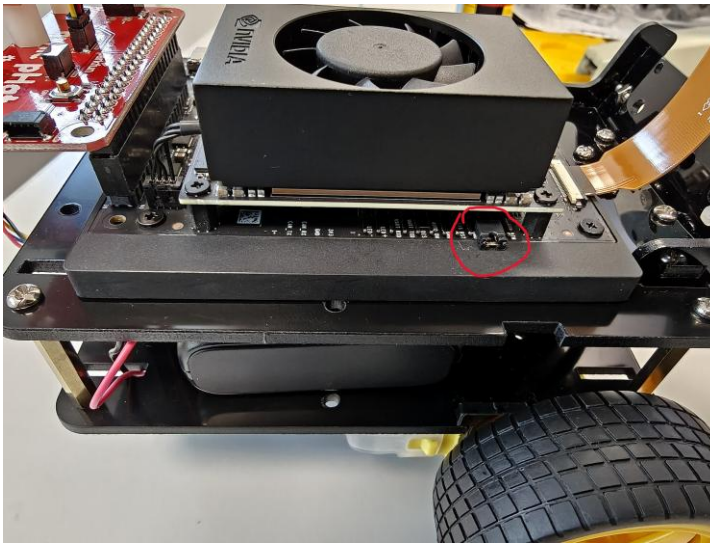


Figure 1

- Then run SDK manager and follow the steps and remove the jumper.
- Choose storage device to be NVMe

Ater finish installation of the JetPack components in Jetson, it can run using a monitor:

- Set the correct time and date using the clock app
- Install Chromium in Jetson using Software app in Jetson

```
# sudo apt-get install chromium-browser
```

Currently (7/8/2025), Chromium not working after installation because of snap, it needs to work around using the following commands ([Link of solution](#)):

```
sudo snap download snapd --revision=24724
```

```
sudo snap ack snapd_24724.assert
```

```
sudo snap install snapd_24724.snap
```

```
sudo sudo snap refresh --hold snapd
```

- Test the camera by applying the following commands:  
# sudo apt update; sudo apt install -y v4l-utils  
# v4l2-ctl --list-devices

If no camera found, setup the camera using the following command:

```
# sudo python /opt/nvidia/jetson-io/jetson-io.py
```

Then choose configure CSI connector and choose (dual IMX219)

- Copy docker folder to new machine and copy ai\_lab.sh and ai\_lab\_ollama.sh
- Install docker images by opening the folder containing each image docker file and run the following:  
# sudo docker build --network host -t mkhairalla/jetbot-orin:r36.4.0 .  
# sudo docker build --network host -t mkhairalla/jetbot-orin-display:r36.4.0 .  
# sudo docker build --network host -t mkhairalla/ollama-custom:r36.4.0