NVIDIA - Jetson Orin Nano Super

Hardware

- NVIDIA: Jetson Orin Nano Developer Kit User Guide - Hardware Specs | NVIDIA Developer

JetPack SDK

- NVIDIA: JetPack SDK | NVIDIA Developer
- NVIDIA: Introduction to NVIDIA JetPack SDK — JetPack 6.2 documentation

???? Jetpack ??

> Tip: ??? L4T ?????? https://developer.nvidia.com/embedded/jetpack-archive ??????? Jetpack ???

```
dpkg -l | grep 'nvidia-l4t-core'
```

SDK Manager

??? Jetson ???????????????? Linux ???????????????? Recovery Mode???? USB-C ??? Linux ???????

- Jetson Orin Nano Developer Kit User Guide - Software Setup | NVIDIA Developer

Install SDK Manager

?????? Linux?Windows?Docker ???

- SDK Manager | NVIDIA Developer

Recovery Mode

??????????

1. ????????????????????????
2. ???????????????

?????? J14 (Button Header) ? Pin 9-10 ???

Headless Setup

- NoMachine: Jetson Remote Desktop Headless Setup Tutorial - Proventus Nova

VNC Server

- Jetson Orin Nano Headless GUI + VNC Setup | Jetson Orin Nano Headless VNC Setup Guide

```
sudo apt-get update
sudo apt-get install tightvncserver
vncserver

# Start VNC server
vncserver -geometry 1980x1080

# Kill VNC Server
vncserver -kill :1
```

`~/.vnc/xstartup` :

```
#!/bin/sh

unset SESSION_MANAGER
unset DBUS_SESSION_BUS_ADDRESS

[ -x /etc/vnc/xstartup ] && exec /etc/vnc/xstartup
[ -r $HOME/.Xresources ] && xrdb $HOME/.Xresources

export XKL_XMODMAP_DISABLE=1
export XDG_CURRENT_DESKTOP="GNOME-Flashback:Unity"
export XDG_MENU_PREFIX="gnome-flashback-"
```

```
gnome-session --session=gnome-flashback-metacity --disable-acceleration-check &
```

POST-Install

Docker

```
# Install the docker
sudo apt update
sudo apt install -y nvidia-container curl
curl https://get.docker.com | sh && sudo systemctl --now enable docker
sudo nvidia-ctk runtime configure --runtime=docker

# Add your user to the docker group
sudo systemctl restart docker
sudo usermod -aG docker $USER
newgrp docker

# Add default runtime
sudo apt install -y jq
sudo jq '. + {"default-runtime": "nvidia"}' /etc/docker/daemon.json | \
sudo tee /etc/docker/daemon.json.tmp && \
sudo mv /etc/docker/daemon.json.tmp /etc/docker/daemon.json

# Restart the docker
sudo systemctl daemon-reload && sudo systemctl restart docker
```

FAQ

CTranslate2 Issue

> “ CTranslate2 package was not compiled with CUDA support

Solution: ? pip ??? CTranslate2 ????? ARM ???????????? ARM ?????????????

????? ctranslate2 ???

```
git clone --recursive https://github.com/OpenNMT/CTranslate2.git


cd CTranslate2
mkdir build && cd build
mkdir install
cmake .. -DWITH_CUDA=ON -DWITH_CUDNN=ON -DWITH_MKL=OFF -DOPENMP_RUNTIME=COMP -
DCMAKE_INSTALL_PREFIX=$PWD/install
make -j4
make install
sudo cp -r install/* /usr/local
sudo ldconfig
```

???????????????? pyvideotrans????? ctranslate2 ???????? `--force-reinstall` ?????????

```
cd ~/pyvideotrans
source ~/.venv/bin/activate
cd ~/CTranslate2/python
pip install -r install_requirements.txt
python setup.py bdist_wheel
pip install dist/*.whl --force-reinstall
```

Links

Tutorials

- NVIDIA: Jetson Orin Nano Super Developer Kit | NVIDIA
- NVIDIA: Jetson Orin Nano Developer Kit Getting Started Guide | NVIDIA Developer
- NVIDIA: Introduction - NVIDIA Jetson AI Lab
- ?????
- NVIDIA Jetson Orin Nano Super Developers Kit – Getting Started
- Install Ubuntu on NVIDIA Jetson | Ubuntu

More hardware for AI

- Best Budget GPU for AI in Your Home Server 2025 - Virtualization Howto

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