

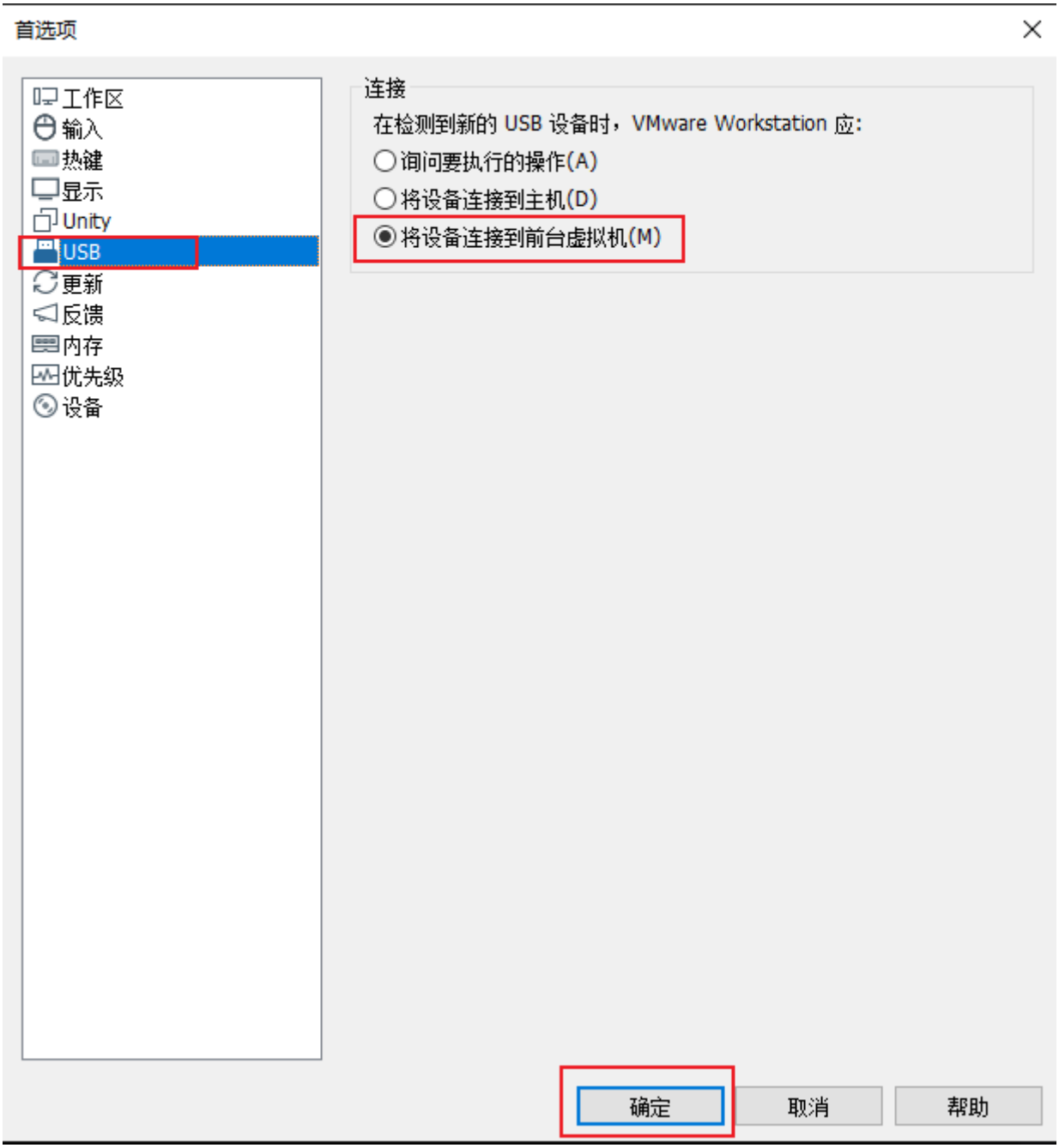
??????????

> 建议在 Linux系统或 Linux虚拟机下进行刷机操作，虚拟机和 SDK manager
> 安装方法可参考 vmware虚拟机安装说明

1.??NVIDIA SDK Manager????

1.1 ??VMware?USB??

- 将 USB连接模式设置为 将设备连接到前台虚拟机，避免刷机中途开发板重启导致失败。



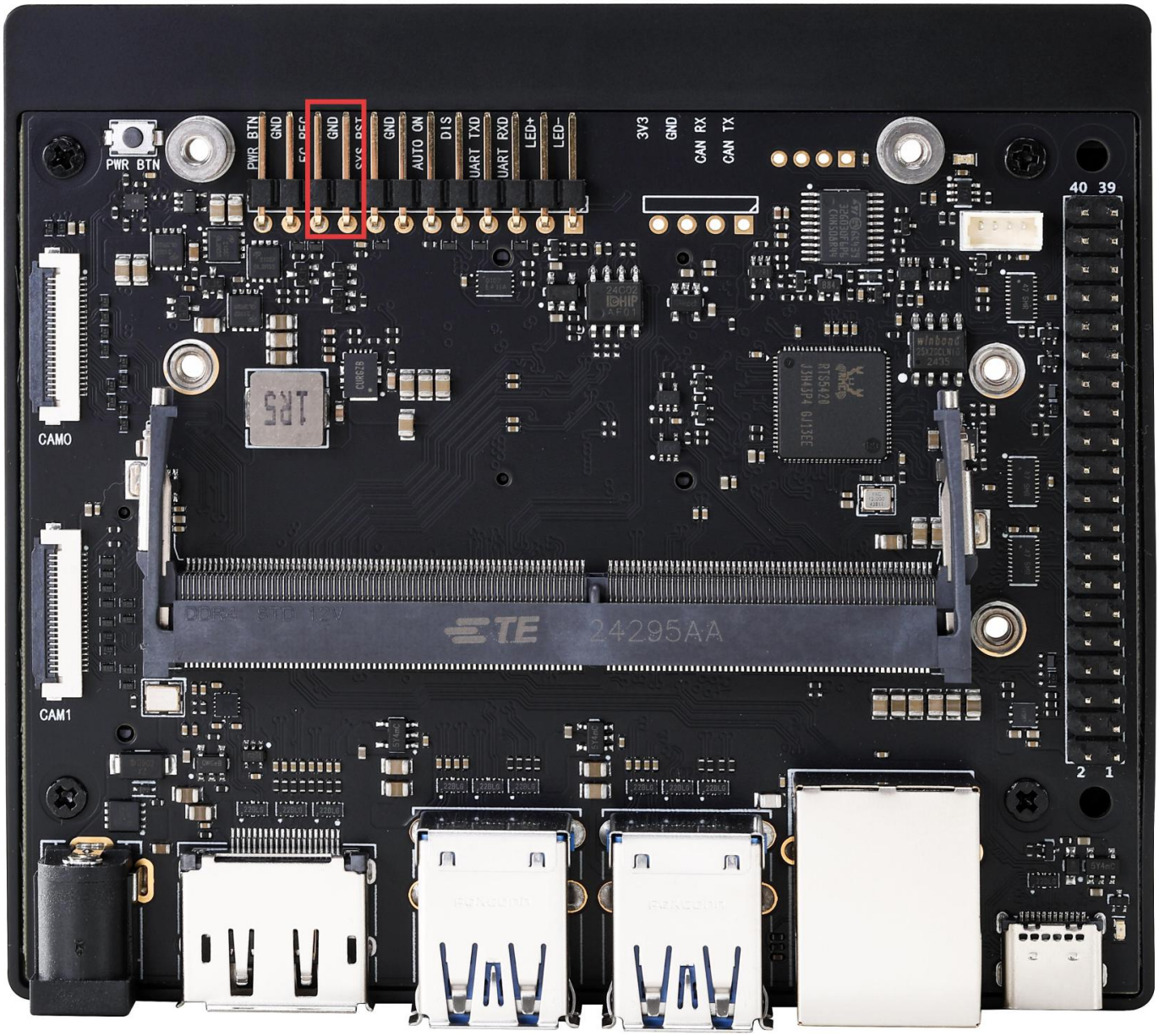
1.2 ??????

1. 使用跳线帽短接开发板上的 **FC REC** 和 **GND** 针脚。
2. 使用 **USB to Tpye-C** 数据线将开发板连接到电脑。
3. 接通开发板的 DC 电源。

成功进入恢复模式后，SDK Manager 会自动检测到核心卡类型，并提示选择套件类型，

同时散热器风扇不会工作。

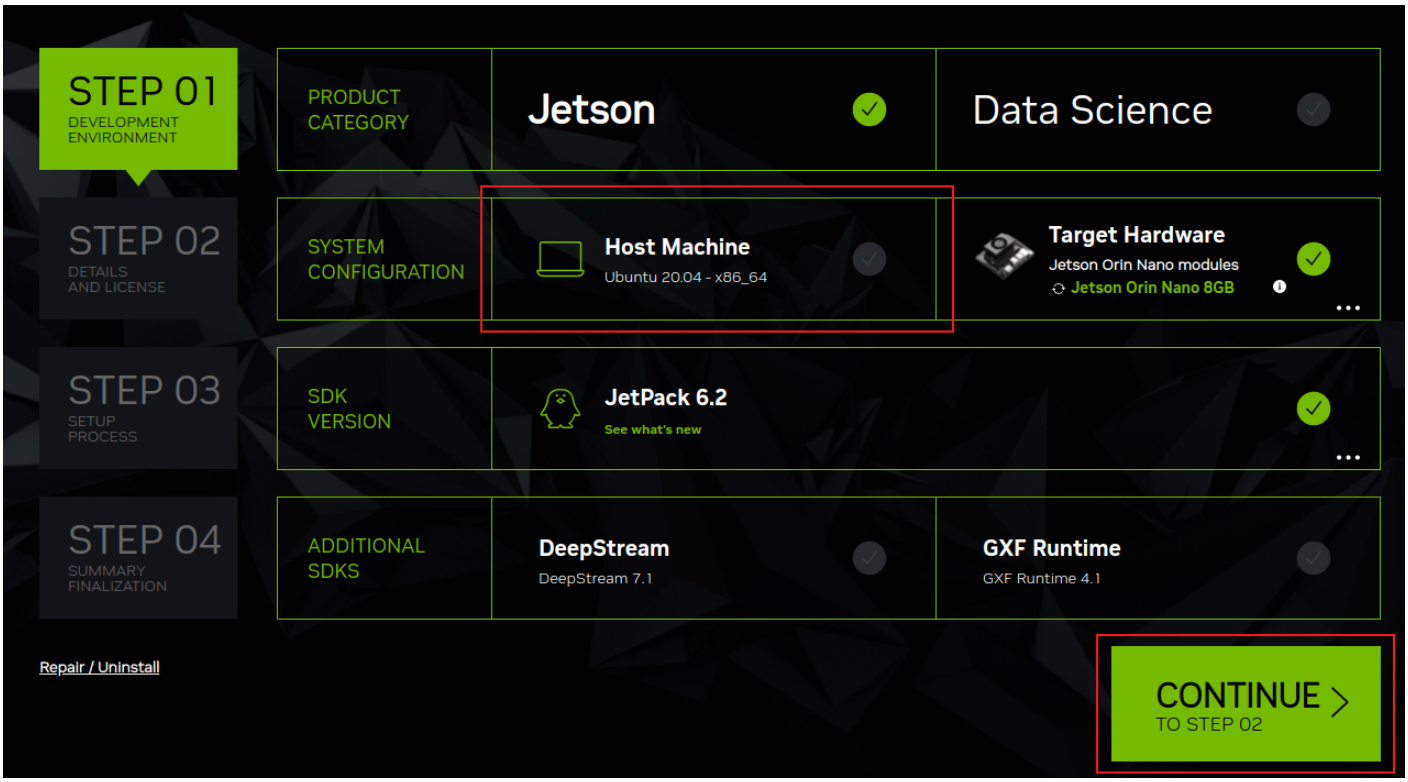
> 进入恢复模式后一段时间内不操作会重启进入系统，请注意操作时机。


PWR BTN
PWR BTN
GND
GND
GND
AUTO ON
DIS
UART TXD
UART RXD
LED+
LED-
3V3
GND
CAN RX
CAN TX
40 39
2 1
CAM0
CAM1
DDR4 STD 12V
TE
24295AA

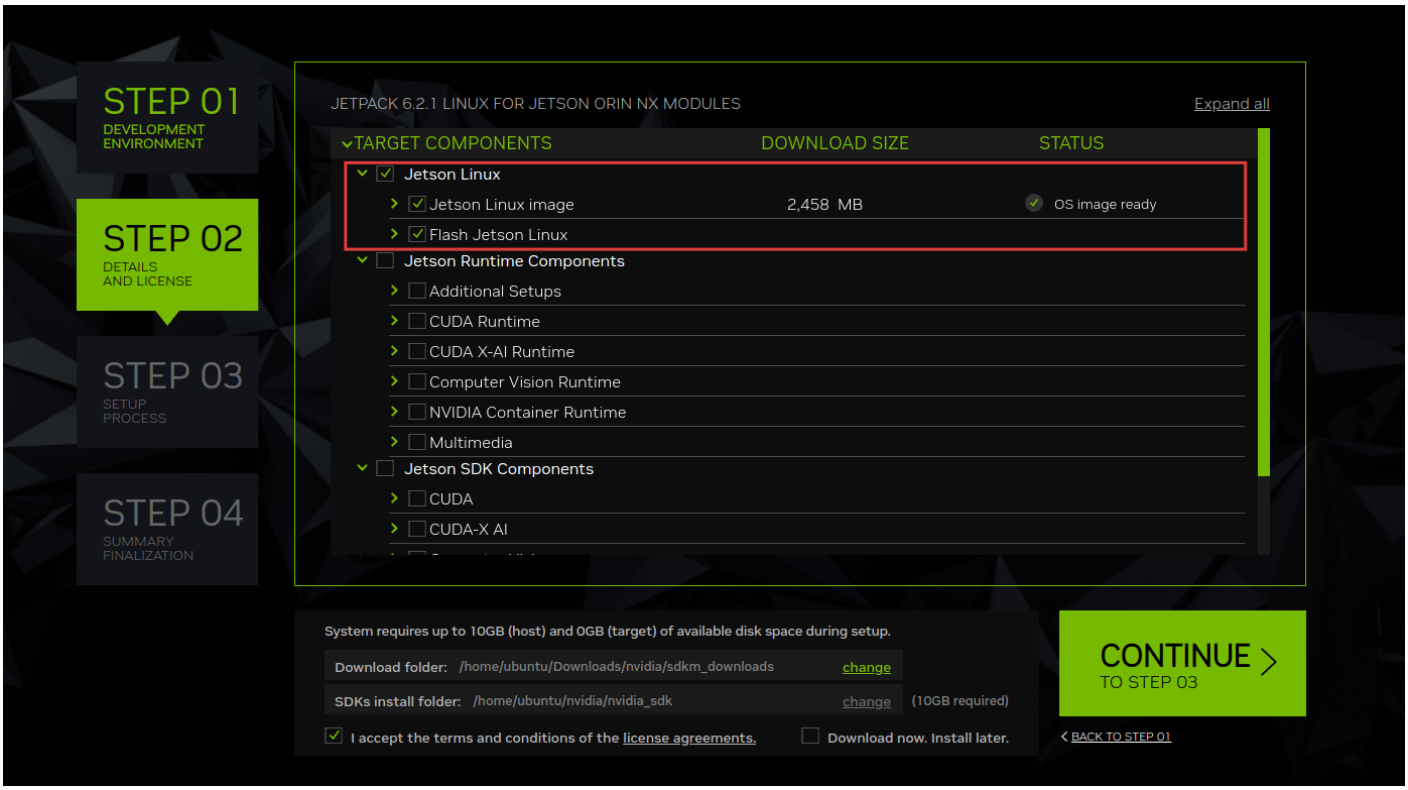


1.3 ??SDK

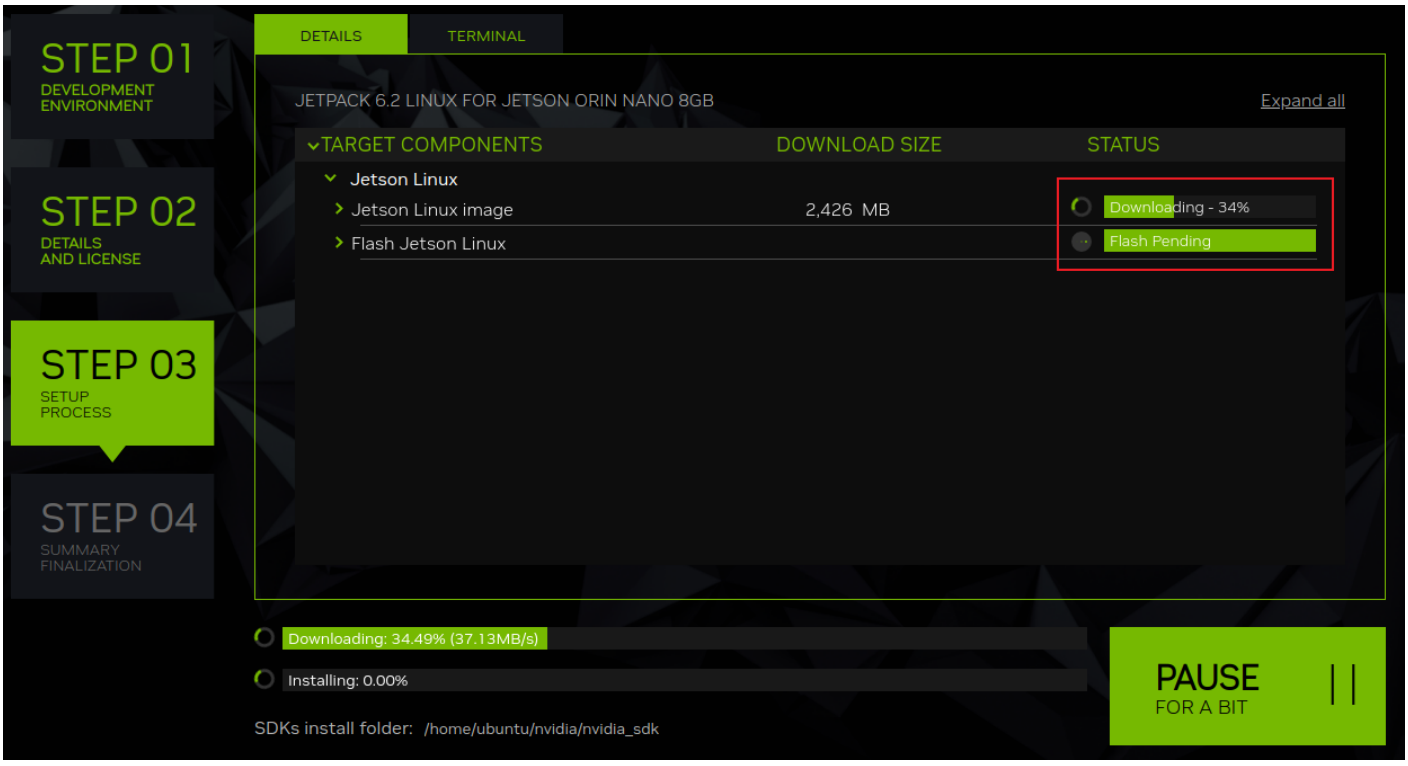
- □□ Host Machine□□□□ CONTINUE



- □□□ Jetson Linux



1.4 ??????

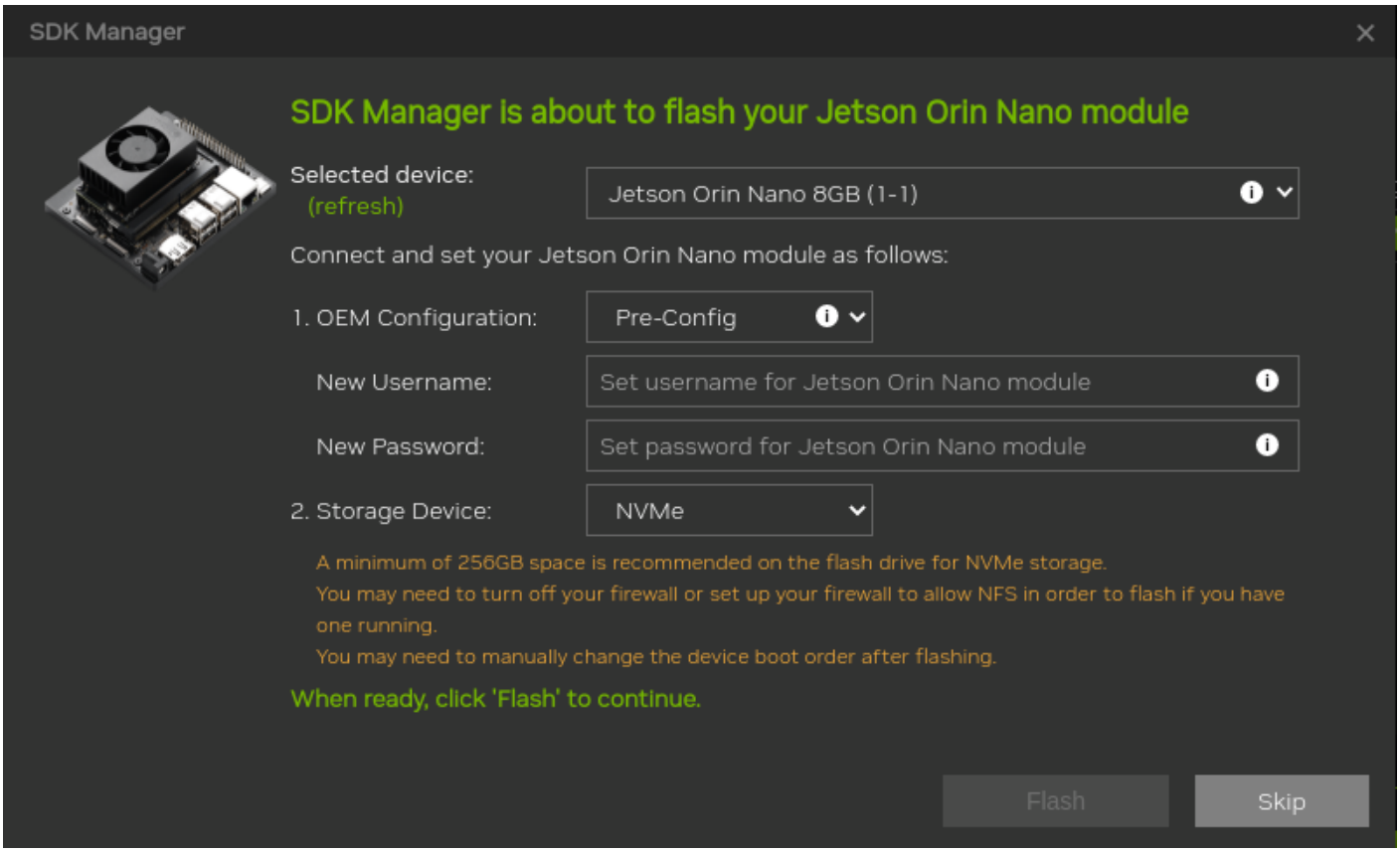


1.5 ??????

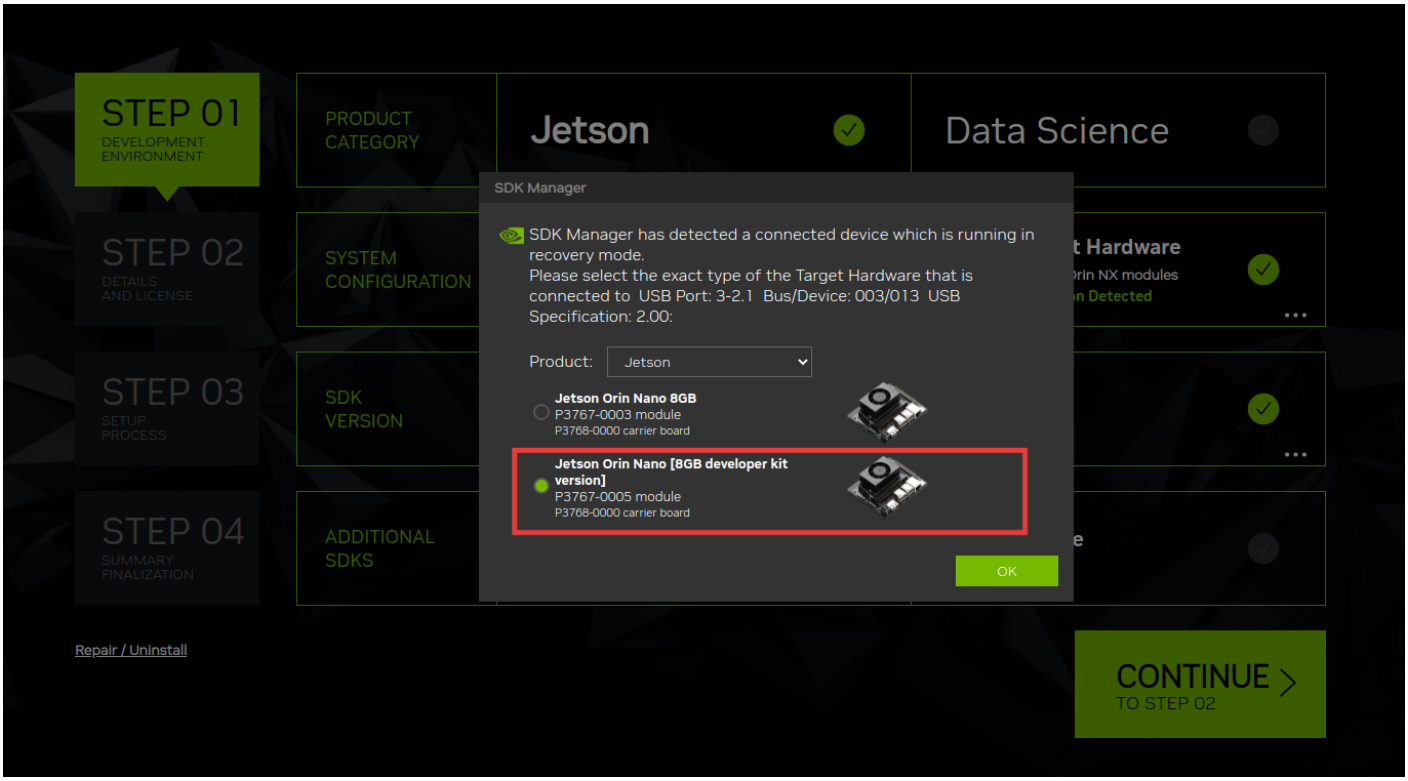
Pre-Config□□□□□□□

Runtime□□□□□□□□□□□

Storage Device□□□□□□□□□□□□□□□□□□□ (□□□ /□□□□ /U□)□

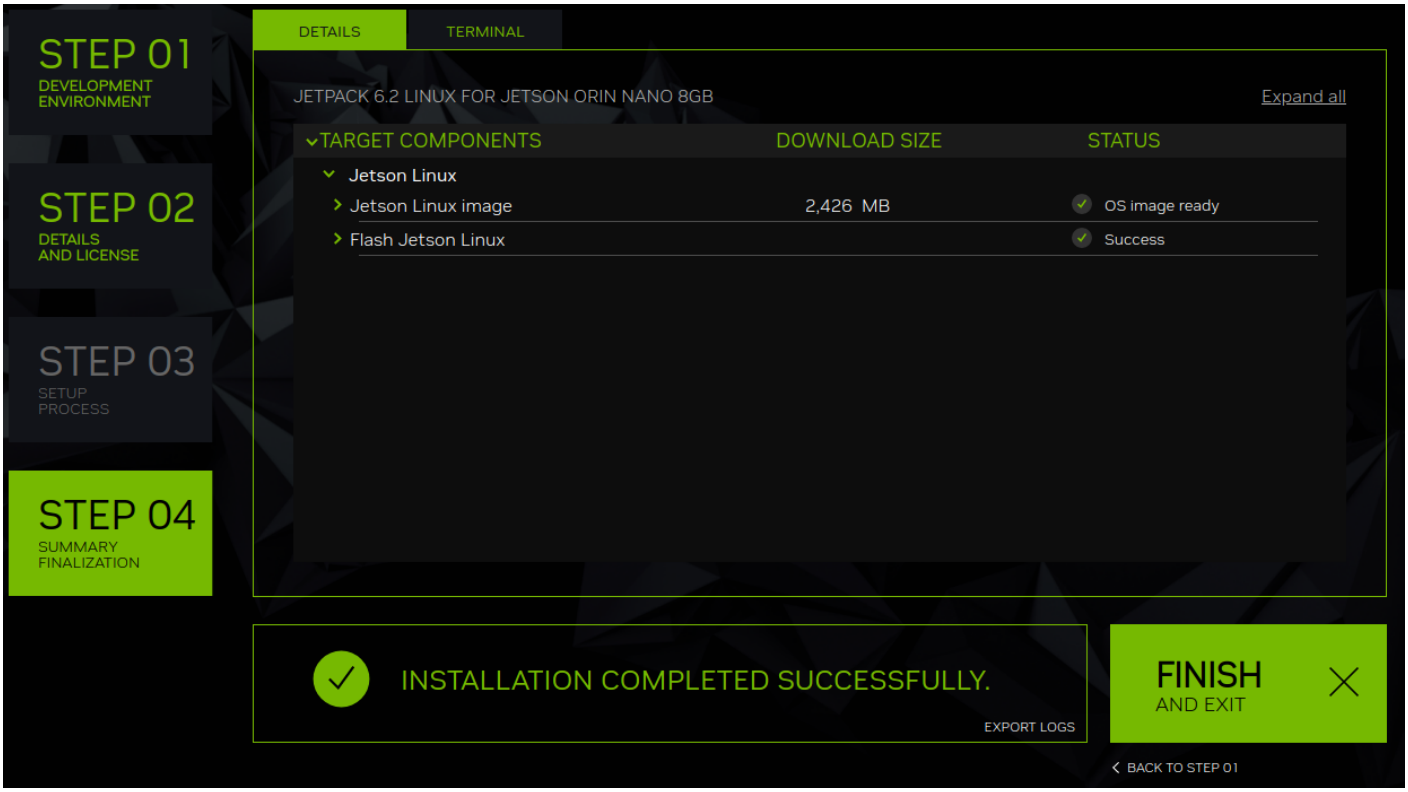


- □□ `developer kit version`□

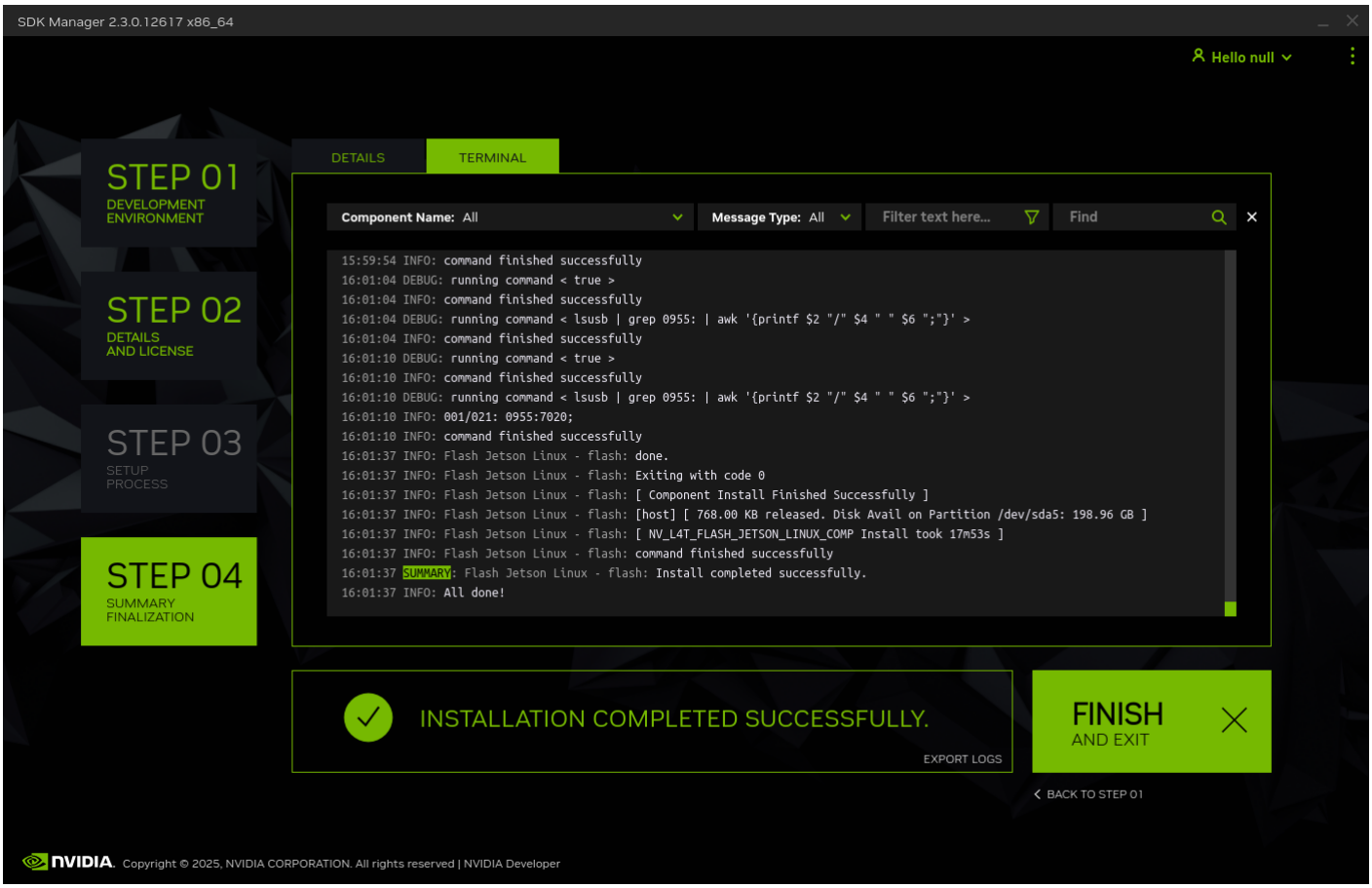


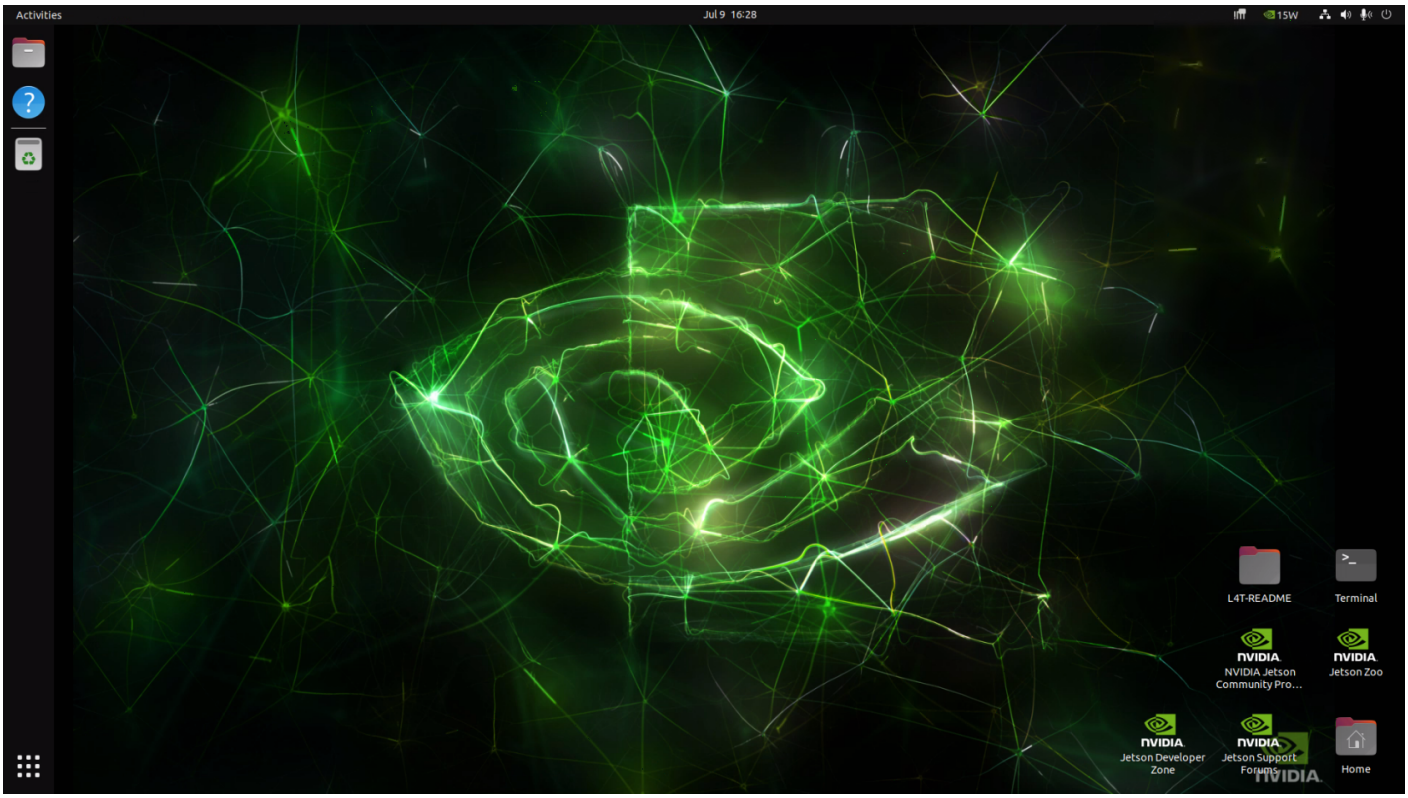
- □□□□□□□□□□□ 10~20□□□

> □


STEP 01
DEVELOPMENT ENVIRONMENT
STEP 02
DETAILS AND LICENSE
STEP 03
SETUP PROCESS
STEP 04
SUMMARY FINALIZATION
DETAILS
TERMINAL
JETPACK 6.2 LINUX FOR JETSON ORIN NANO 8GB
Expand all
TARGET COMPONENTS
DOWNLOAD SIZE
STATUS
Jetson Linux
Jetson Linux image
2,426 MB
OS image ready
Flash Jetson Linux
Success
INSTALLATION COMPLETED SUCCESSFULLY.
EXPORT LOGS
FINISH AND EXIT
BACK TO STEP 01

- [illegible]





2.???????super??

□□□□□□□□□□□□□□□□□ SDK Manager□□□□□□□□□□□□□□□□□□□□

2.1 ??????

- □□□□□□□ **FC REC□ GND□□□□** **Tpye-C**
  □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

2.2 ?????????????

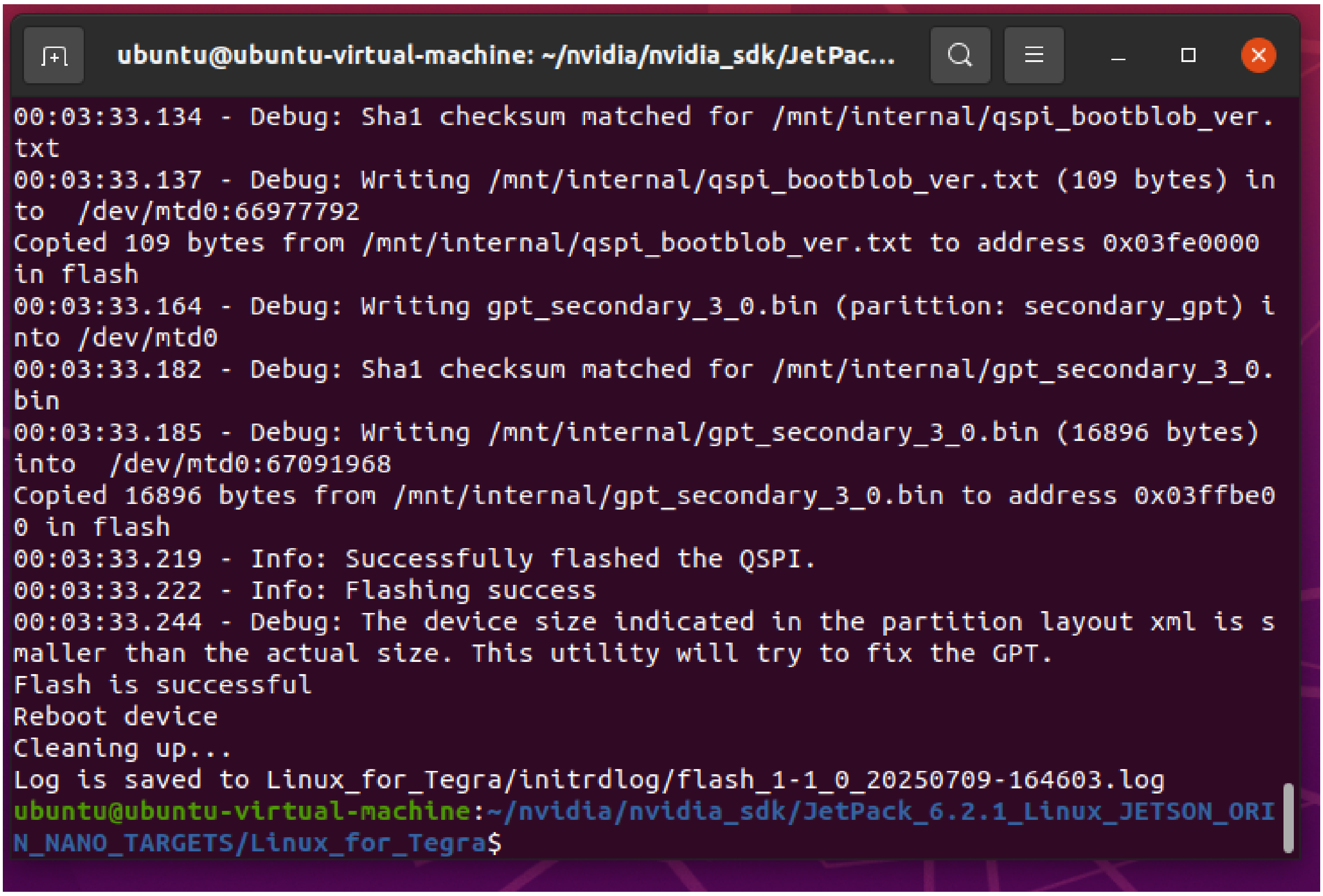
> □□□□□□□□□□□ SDK Manager□□□□□□□□□ 10~20□□

- JetPack6.2□□□□□□□

```
cd /home/ubuntu/nvidia/nvidia_sdk/JetPack_6.2.1_Linux_JETSON_ORIN_NANO_TARGETS/Linux_for_Tegra
#□□□□□□□□□□□□□□□□□□□□□□□□□□
sudo ./tools/kernel_flash/l4t_initrd_flash.sh --external-device nvme0n1p1 \
  -c tools/kernel_flash/flash_l4t_t234_nvme.xml -p "-c
bootloader/generic/cfg/flash_t234_qspi.xml" \
  --showlogs --network usb0 jetson-orin-nano-devkit-super internal
```

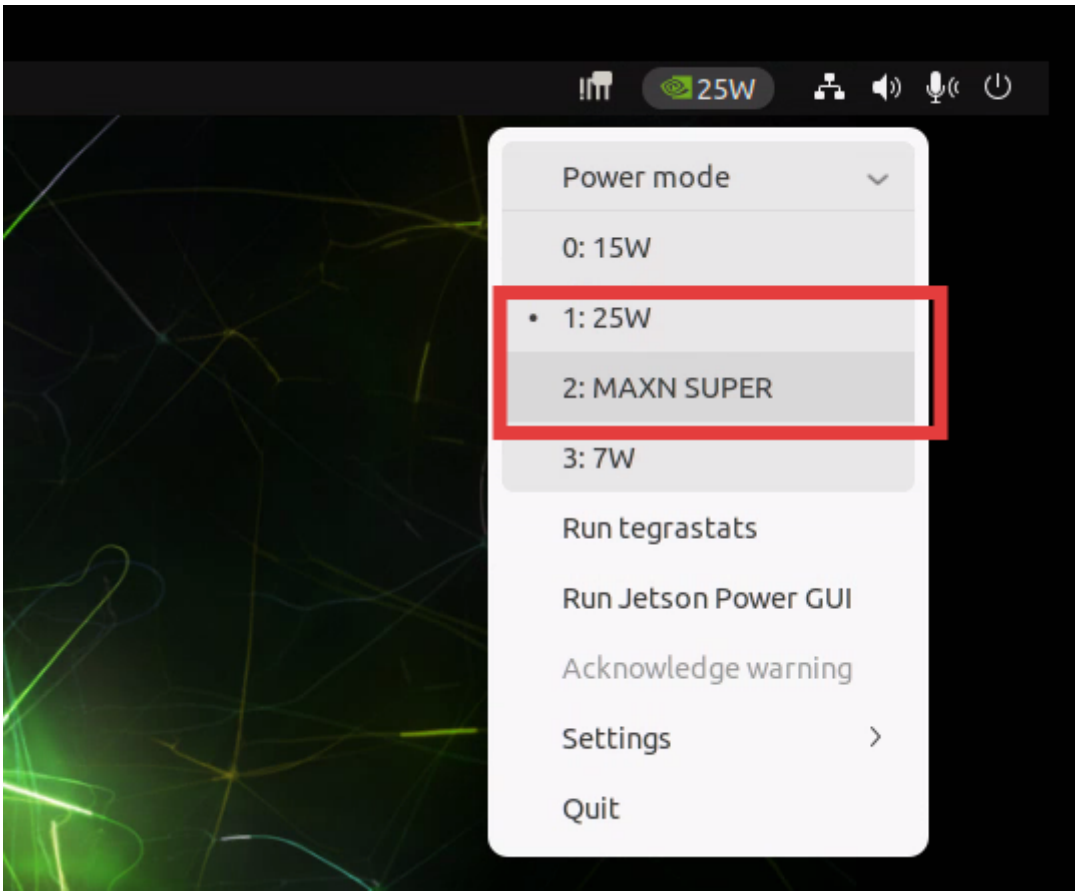
- JetPack5.1.5□□□□□□□

```
cd /home/ubuntu/nvidia/nvidia_sdk/JetPack_5.1.5_Linux_JETSON_ORIN_NANO_TARGETS/Linux_for_Tegra
#□□□□□□□□□□□□□□□□□□□□□□□□□□
sudo ./tools/kernel_flash/l4t_initrd_flash.sh --external-device nvme0n1p1\
  -c tools/kernel_flash/flash_l4t_external.xml -p "-c
bootloader/t186ref/cfg/flash_t234_qspi.xml"\
  --showlogs --network usb0 jetson-orin-nano-devkit-super internal
```



2.3 ??????super??

- 开发板上电开机完成用户配置后在桌面右上角可以选择电源模式，**25W** & **MAXN SUPER**为 super 模式独有，普通模式只有 **7W** 和 **15W** 两档。



3.??????????

3.1????

- 使用跳线帽短接 **FC REC**和 **GND**针脚，使用 **Tpye-C** 型数据线连接至电脑并接通开发板电源，使开发板进入恢复模式。

  或者在正常开机状态下连接到主机，输入以下命令重启到恢复模式

```
sudo reboot -f forced-recovery
```

- 进入到原刷机固件缓存下的命令行目录。

```
cd /home/ubuntu/nvidia/nvidia_sdk/JetPack_6.2.1_Linux_JETSON_ORIN_NANO_TARGETS/Linux_for_Tegra
#仅供参考，需要根据实际版本和路径进行修改
```

- 主机上安装依赖包

```
sudo apt-get install qemu-user-static libxml2-utils abootimg sshpass nfs-kernel-server
binutils
```

- 备份命令

```
sudo ./tools/backup_restore/l4t_backup_restore.sh -b -e nvme0n1 jetson-orin-nano-devkit-nvme
```

- □□□□

```
sudo ./tools/backup_restore/l4t_backup_restore.sh -r -e nvme0n1 jetson-orin-nano-devkit-nvme
```

□□□□□□□□□□□□□□□□□□ `nvrestore_partitions.sh` □□□ **292~296**□ □□□

```
278 # This block will check to make sure the model of the target board matches the
279 # model of the board the images came from.
280 for value in $(grep -v -e '(^ *$|^#)' < "${FILE_NAME}"); do
281         declare -a FIELDS
282         for part in {1..6}; do
283                 FIELDS[part]=$(echo "$value" | awk -F, -v part=${part} '{print $part}')
284         done
285         if [ "${FIELDS[1]}" = 'board_spec' ]; then
286                 set_board_spec
287                 if [[ "${FIELDS[2]}" == "${BOARD_SPEC}" ]]; then
288                         BOARD_MATCH=true
289                 fi
290         fi
291 done
292 #if [ ${BOARD_MATCH} = false ]; then
293 #       echo "${SCRIPT_NAME}: You are trying to flash images from a board model that does not"
294 #       echo "match the current board you're flashing onto."
295 #       exit 1
296 #fi
297
298 declare -A able_to_delete
```

□□□ #2

□ edit □□□ 11 □□□ 2025 07:20:10

□ edit □□□ 23 □□□ 2025 12:40:16