# Flash the system image

Jetson Nano B01 writing system image

The Jetson Nano B01 is an embedded motherboard with a shape and interface similar to Raspberry Pie, equipped with a quad core Cortex-A57 processor. The GPU is an NVIDIA Maxwell architecture graphics card with 128 NVIDIA CUDA cores, 4GB of LPDDR4 memory, and 60Hz video decoding.

1.Preparation before writing

- Power cord (mandatory)

The Jetson Nano B01 does not include a power cord. You need to provide one yourself, and the specific parameter is a 5V ⎓ 2A MicroUSB power cord. You can use a MicroUSB cable with a Raspberry Pi power supply of 5V ⎓ 2.5A. **Here we choose the 5V4A DC power supply in the store, and note that J48 needs to be short circuited with a jumper cap.** The figure below shows the 5V4A power supply, and you can see that the jumper cap is connected.
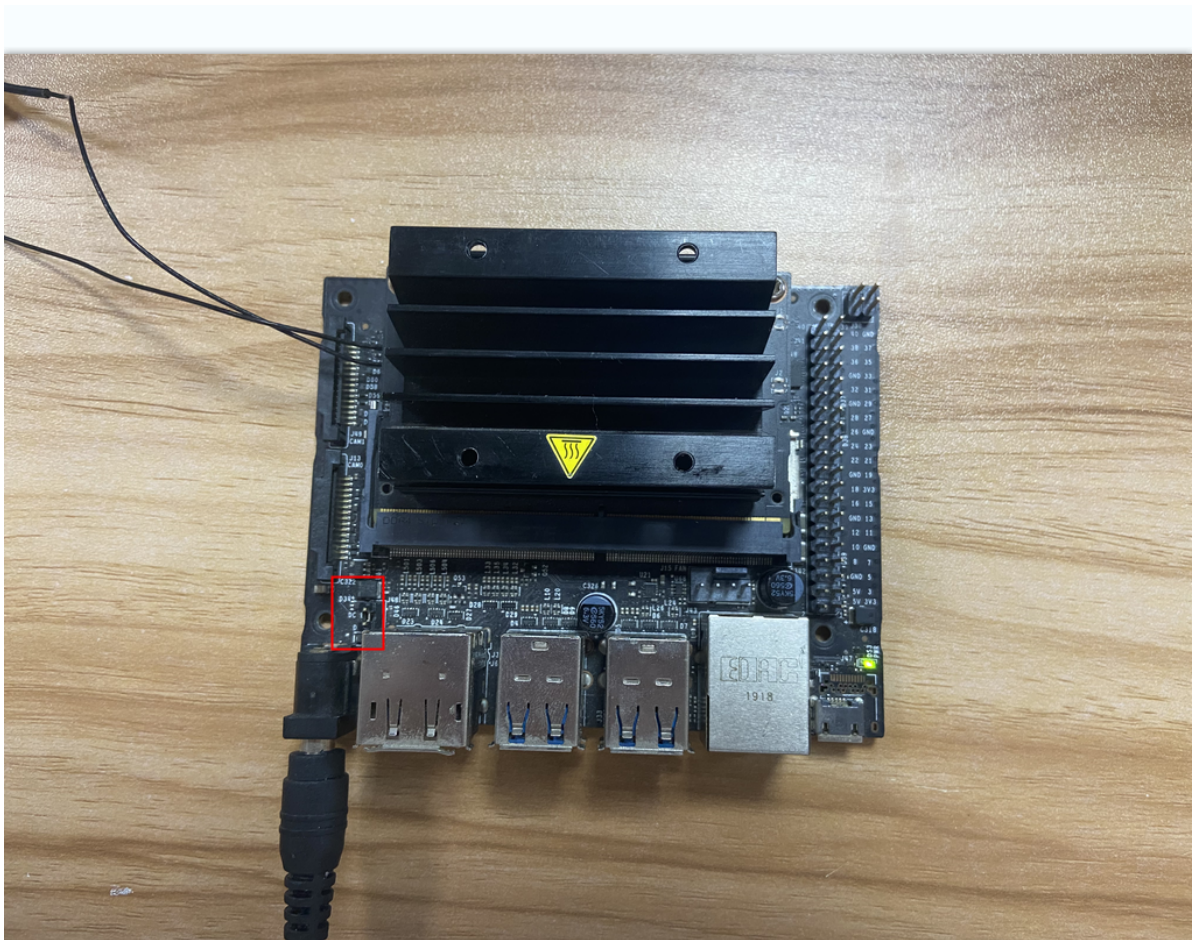
- SD card (mandatory)

Jetson Nano B01 requires a minimum configuration of 16G SD card, but the entire system uses approximately 13G after flashing the SD card. In the future, some machine learning frameworks such as TensorFlow will need to be installed, and sample data may also need to be installed. Therefore, 16G cards are not enough, and it is recommended to use 64G cards.
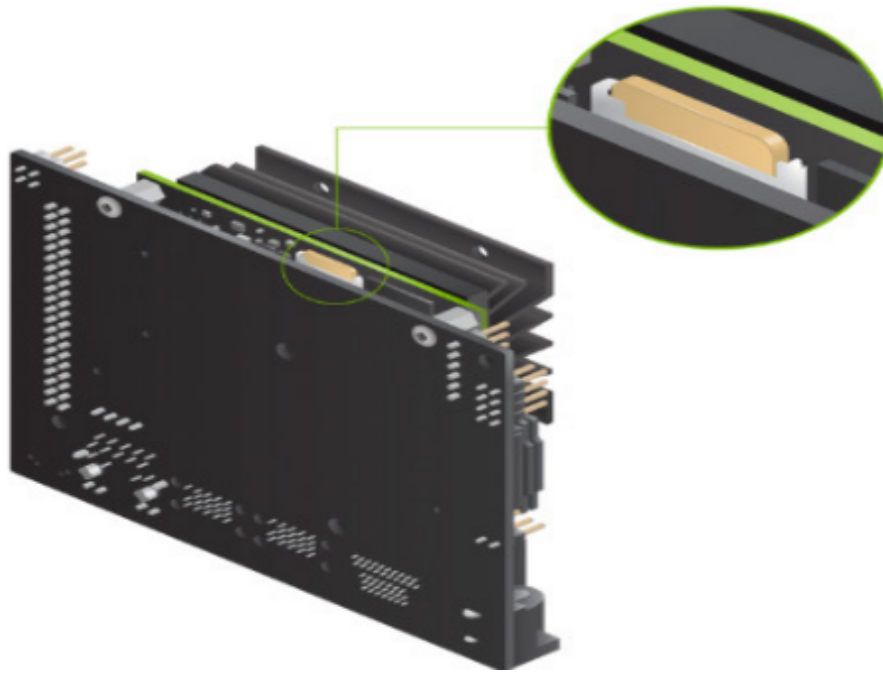
- Wireless network card (optional)

The Jetson Nano B01 is equipped with a gigabit Ethernet card, but it is troublesome to connect the keyboard and mouse cables. Therefore, it is recommended to buy a PCI wireless network card (recommended in the store package) or a USB wireless network card (occupying an additional USB port).

2.writing system

The way the Jetson Nano B01 official version brushes the system is different from the TX series of the Jetson family, simply write the image to an SD file.
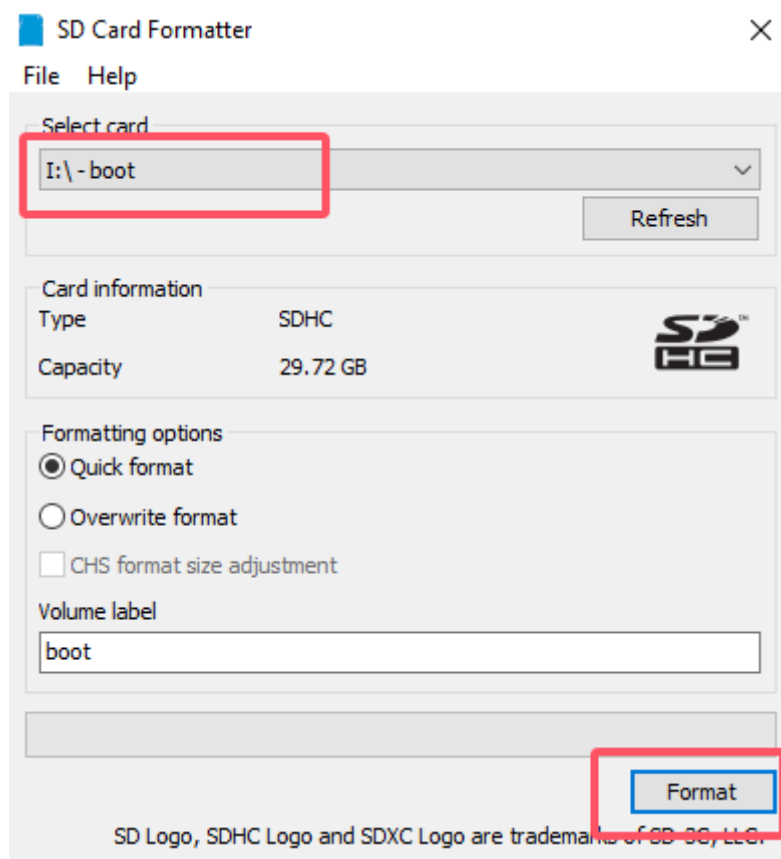
2.1 Download Image

- Download the official image from NVIDIA

https://developer.nvidia.com/embedded/downloads

- Download the configured image we provided, and the image is provided in the network disk information we provided.

2.2 Format SD card

After inserting the SD card into the card reader, insert it into the computer and use the software SDFormatter to format it. Here, it is necessary to pay attention to the formatted drive letter

2.3 SD card writing image

First, we need to extract the downloaded image into an. img format file, and then use the Win32DiskImager software to write it. Here, we also need to pay attention to the SD card drive letter for writing. 1. At the same time, we need to add the. img image we just extracted. 2. Select the SD card drive letter, and 3. Then click Write

Note: After the writing is completed, the system may prompt to format the partition because it cannot be recognized. Do not format at this time! Do not format! Do not format! Click Cancel, then pop up the memory card and insert it into the Jetson Nano B01 official version to power it on.
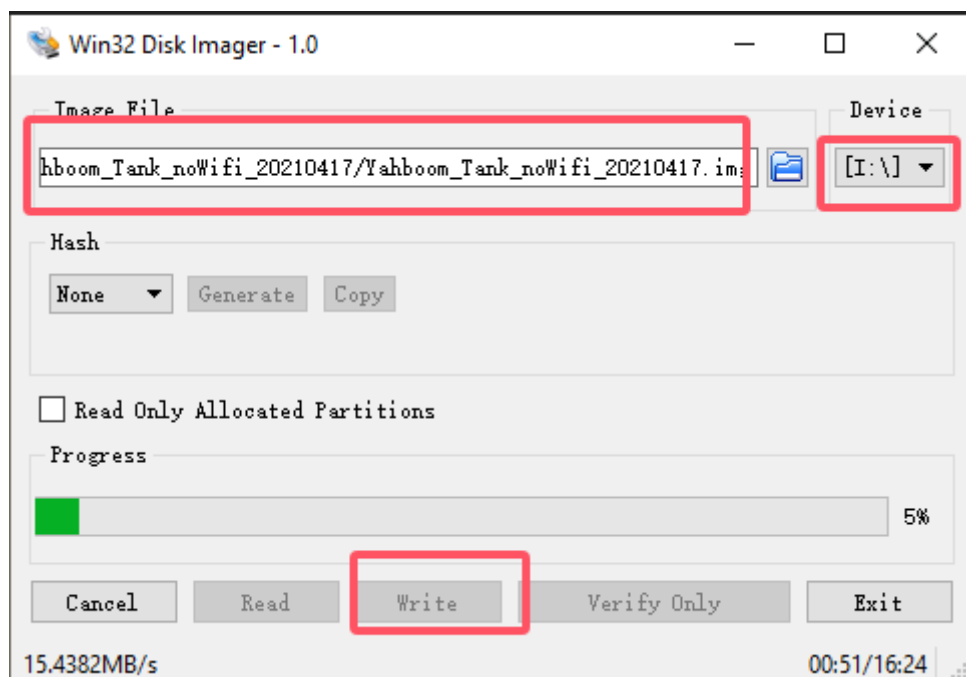
3.Power on

After the writing is completed, insert the SD card into the Jetson Nano B01 and turn it on. Note that when using DC power, the J48 jumper cap needs to be short circuited, and when using microUSb, it needs to be unplugged J48 Jumper Cap
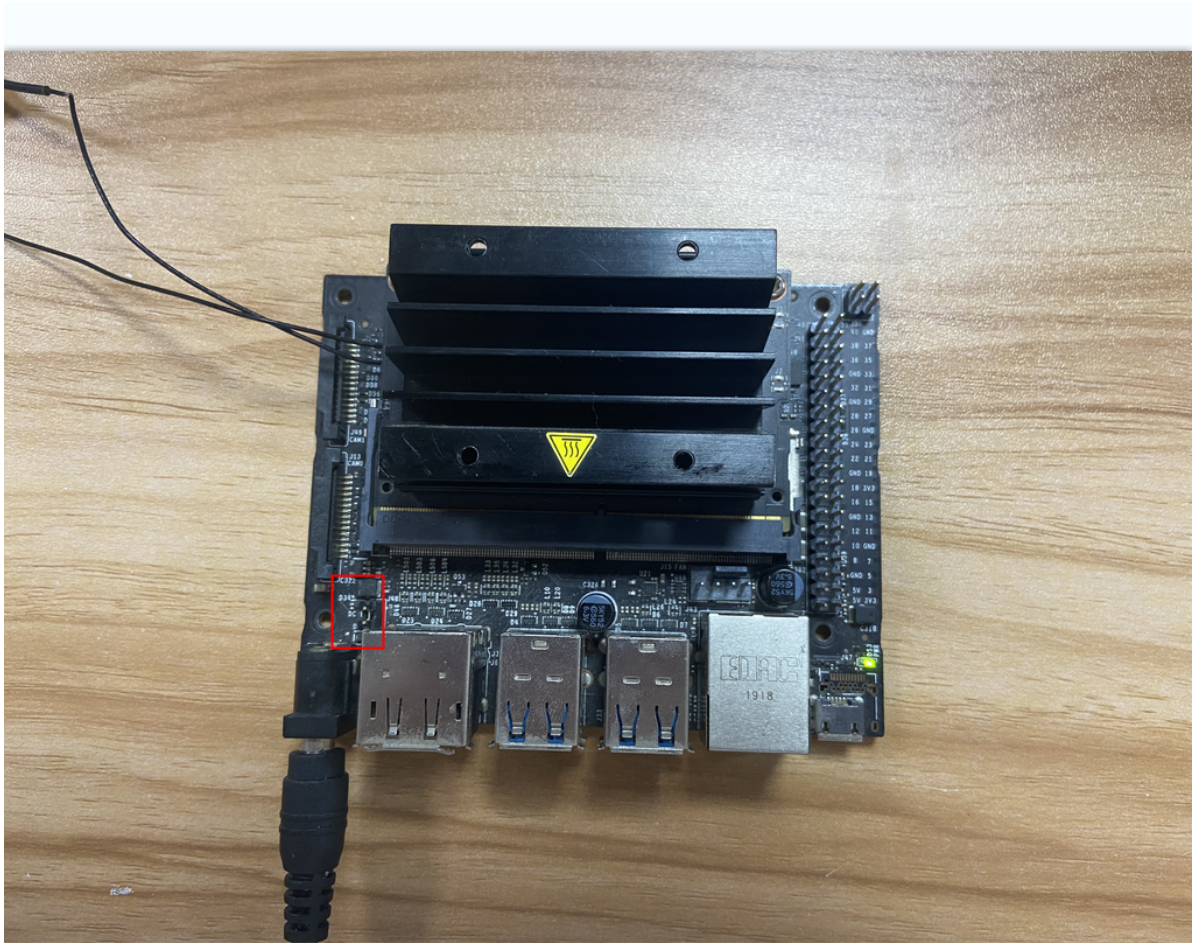
After that, there will be prompts to complete some settings, time zone, language, input method, and so on. No screenshots will be taken, as shown in the figure below, and the work is completed
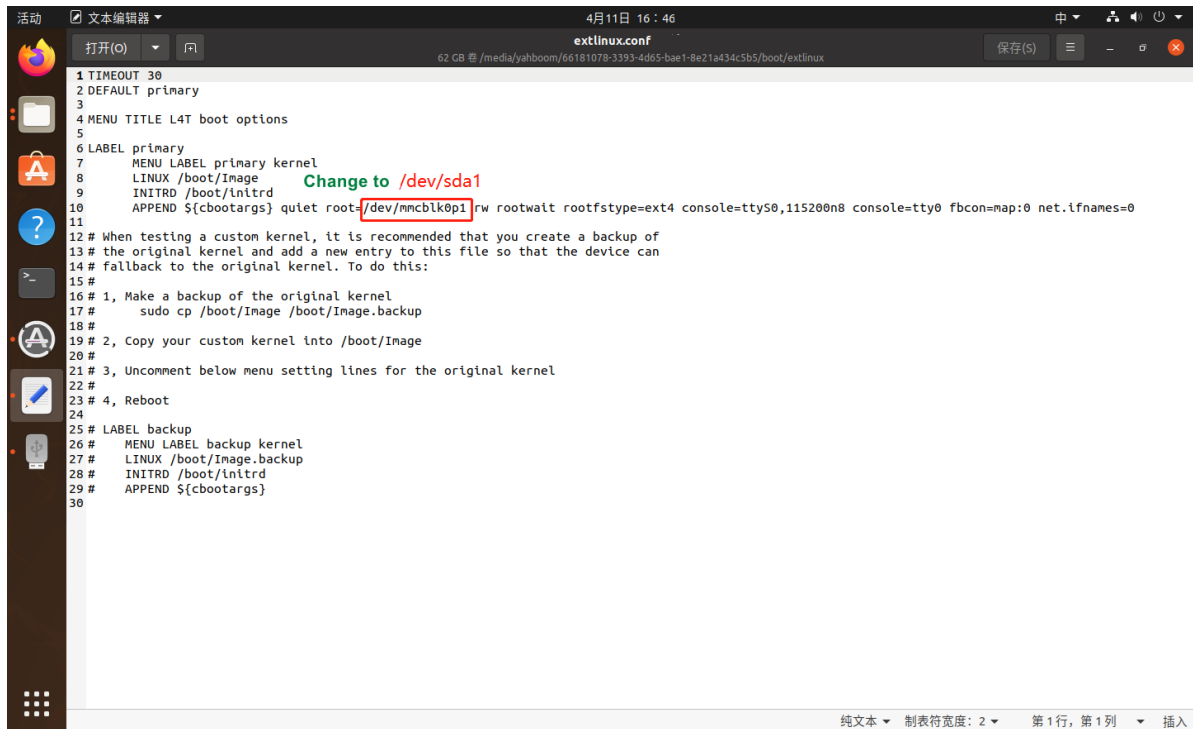

4.USB drive startup

The USB drive/TF card in the package comes with a factory image by default, without the need for writing steps. If there is a startup error or a third-party USB drive/TF card is used, you can follow this tutorial to write the image

Insert the USB drive into the virtual machine, open the USB drive on the virtual machine, open the terminal on the USB drive interface, and enter the following command

```
cd boot/extlinux
sudo gedit extlinux.conf
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grasp"root=/dev/mmcblk0p1"Modify to"root=/dev/sda1"

mmcblk0p1: SD card startup

sda1:USB drive startup

Save and exit, insert the USB drive into the Jetson Nano B01, and then turn it on