

# Flashing Manual For All Series Of Whatsminer

How to prepare a SD card and Downgrade(Flash) miners

For all series of:

M20x , M21x , M30x , M31x , M32

M10 , M10S , D1

M3 , M2 , M1



Miner devices may sometimes need to flash for a variety of reasons. In this case, by preparing a special SD card (according to the type and model of the device), you should downgrade(flash) the device and after completing the process, upgrade the device again with the latest available firmware.

The purpose of this article is to explain all the steps for preparing a suitable SD card and the way of downgrading different types of WhatsMiner devices, according to the latest version provided by this company.

## **Step 1: Preparing the SD card**

### **1- Specify the type of control board:**

The file to be written on the SD card depends on the type of control board. In the first step, it is necessary to specify the type of device control board. There are two ways to determine the type of control board:

#### **I. Using the “WhatsMiner Tools” software:**

After scanning the devices with “WhatsMiner Tools”, in the [version info] column, you can see the information about the type of control board of the device.

Power(W)	Version Info	Chip
3537	H6OS-V6-20200703.16.REL	V02
3301	H3-V16-20200703.09.REL	V02
3546	H3-V10-20200729.22.REL	V01
2198	H6-V2-20200730.13.REL	K88D
0	H6OS-V5-20200722.19.REL	
0	H3-V4-20200729.20.1	
0	H3-V8-20200429.22.1	

## II. Using the label on the control board:

There is a label on the control board hardware from which the type of control board can be identified as follows:





- "CB2" label is used for "H3" control boards
- "CB4" and "CB6" labels are used for "H6" control boards

- These two types of control boards are mostly used in M10, M10S, D1, M20, M20S, M21S, M30 miners.
  - “CB4\_V10” label is used for “H6OS” control boards
- This type of control board is only used in M30 series of miners.
  - Label CB\_V1.2 is used for “ZYNQ” control boards.
- This type of control board is often available on M1 and M2 series devices.

## 2- Download “downgrade file” according to the type of control board:

A list of downgrade files for different miners (according to the latest versions provided by WhatsMiner), is available for download below:

- **M20x, M21x, M30x, M31x, M32 Miners:**

[Download link for H3 series control boards](#)

[Download link for H6 series control boards](#)

[Download link for H6OS series control boards](#)

[Download link for ZYNQ series control boards](#)

## **M10, M10S, D1 Miners:**

[Download link for H3 series control boards](#)

[Download link for H6 series control boards](#)

[Download link for ZYNQ series control boards](#)

### **- M1, M2, M3 Miners:**

[Download link for H3 series control boards](#)

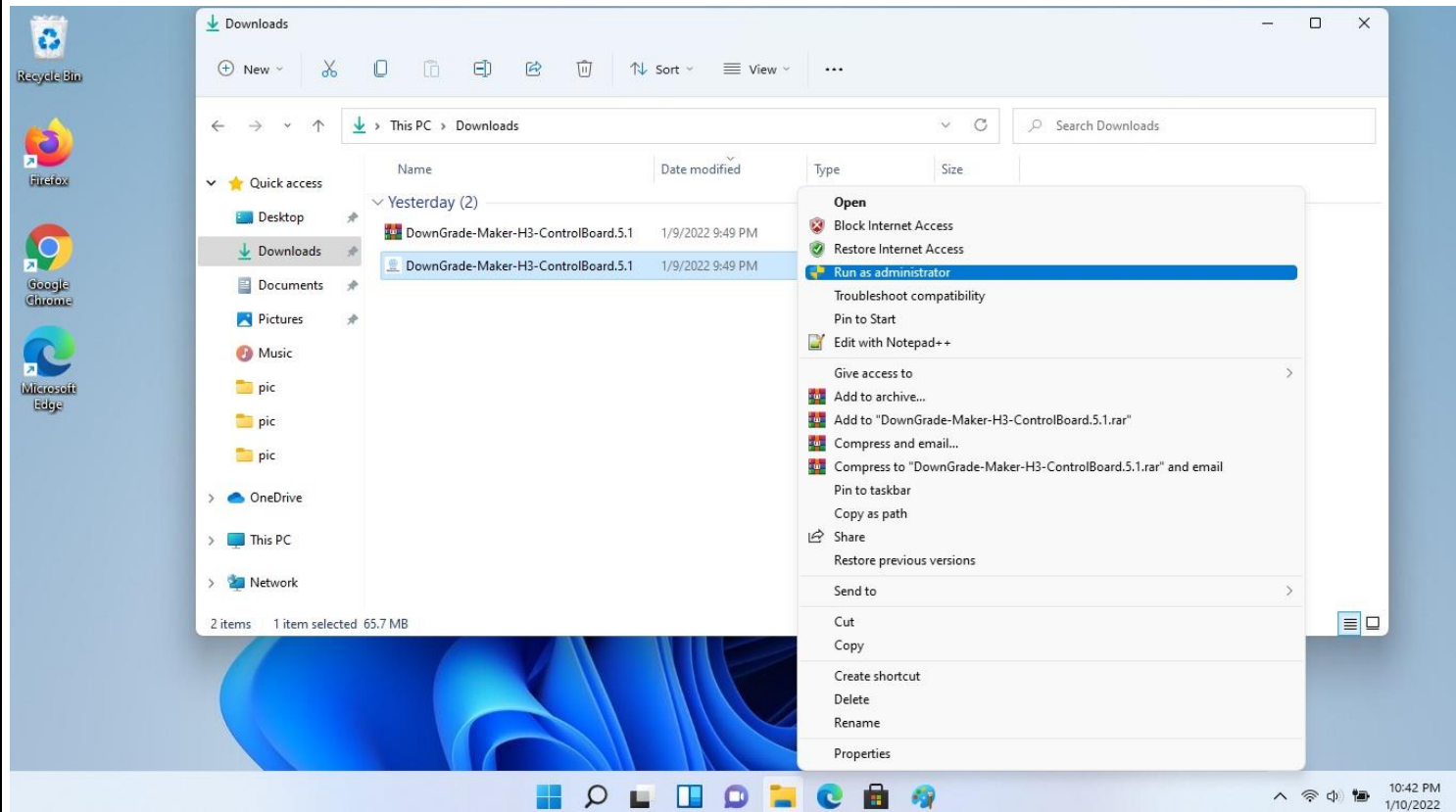
[Download link for ZYNQ series control boards](#)

## **3- Installing the downloaded software on the computer and preparing the SD card :**

### **A. H3, H6 and H6OS series control boards:**

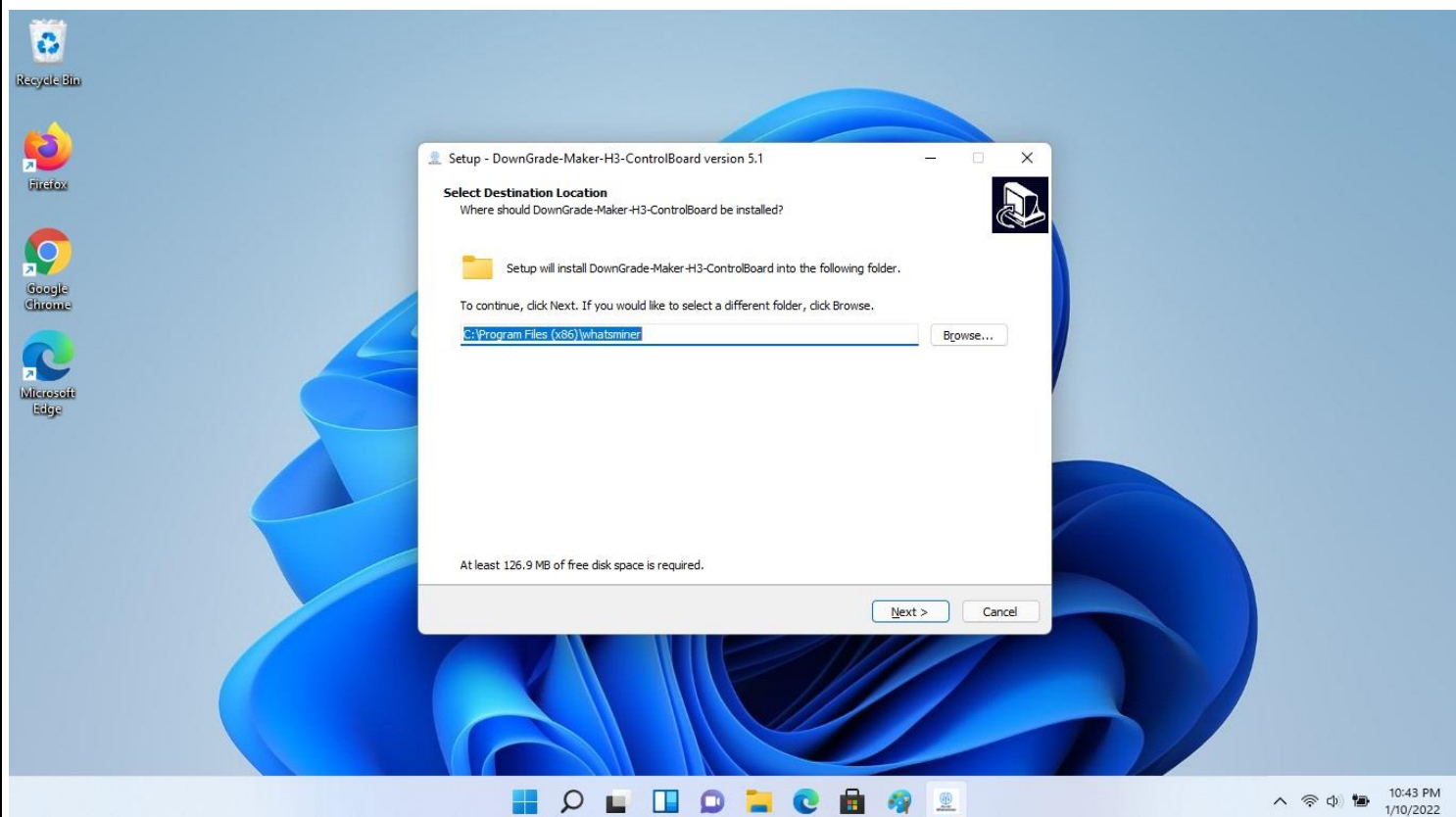
In this type of control boards, the steps of installing and preparing the SD card are as follows:

- 1- Unzip the downloaded file in the previous section.
- 2- Disconnect the Internet.
- 3- Right-click on "DownGrade-Maker \* .exe" installation file and select "Run as administrator".  
(\* The name of the installation file also includes the type of control board and the version of the file)

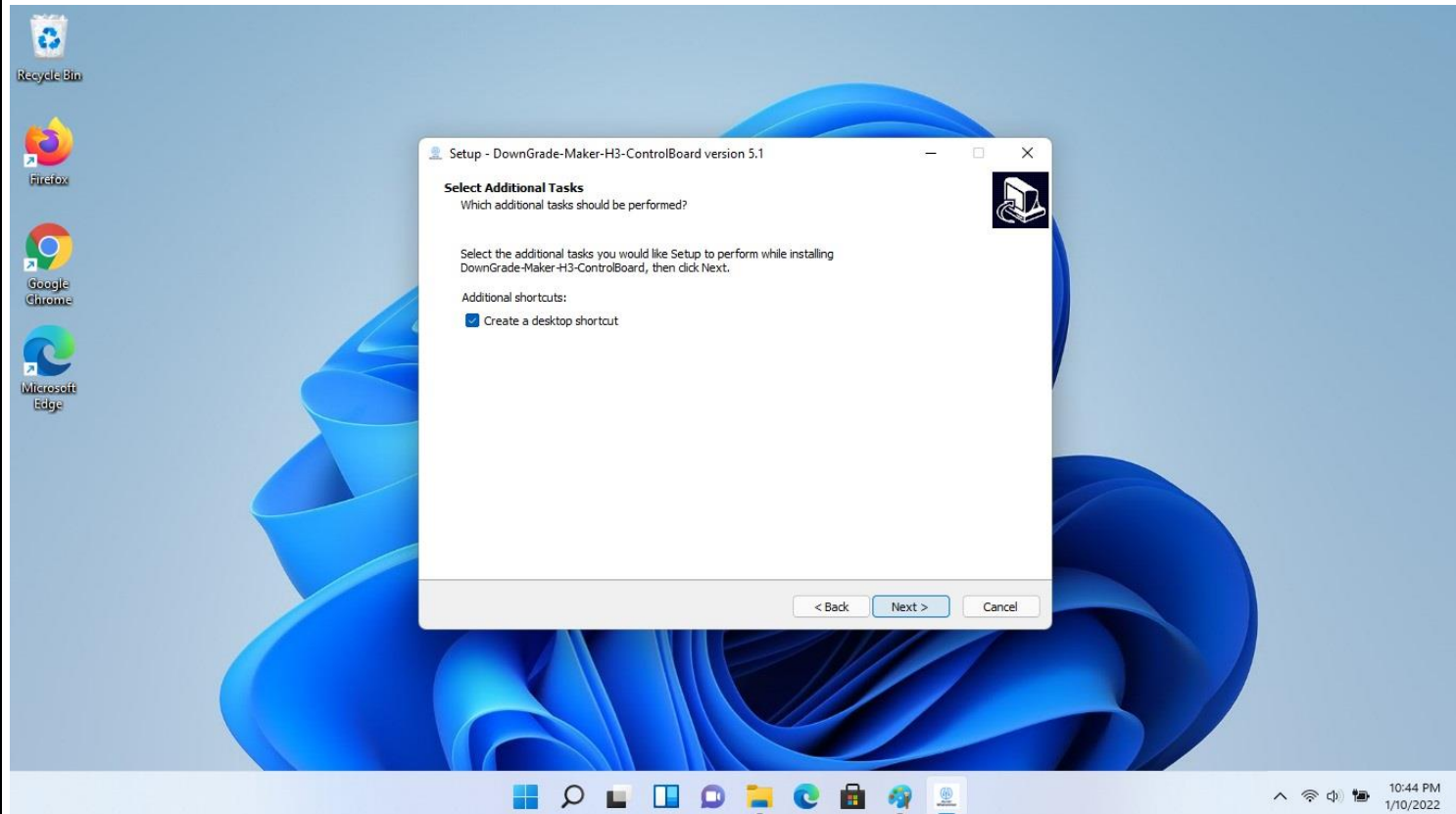


4- Confirm if needed.

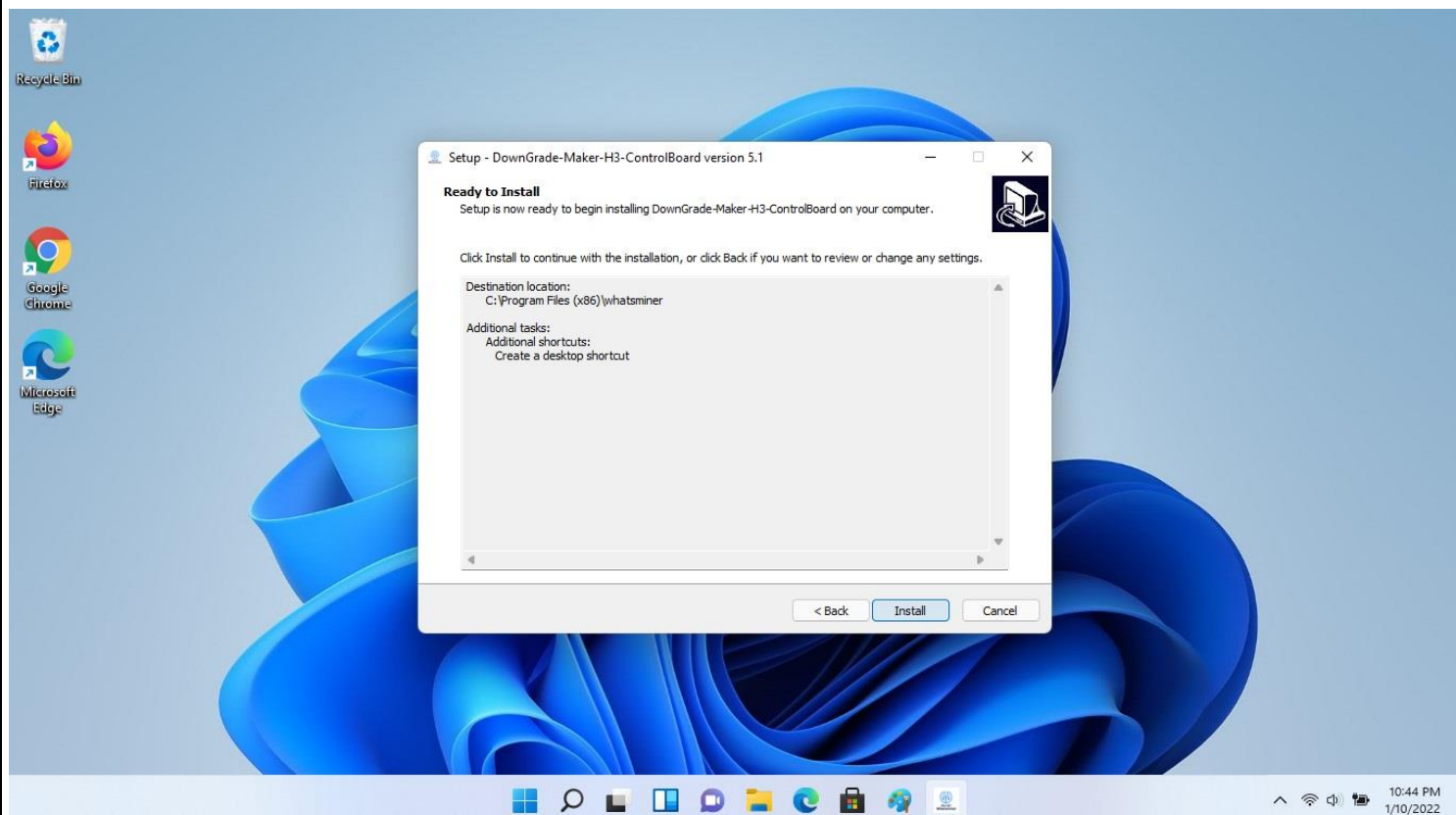
5- Follow the installation steps:



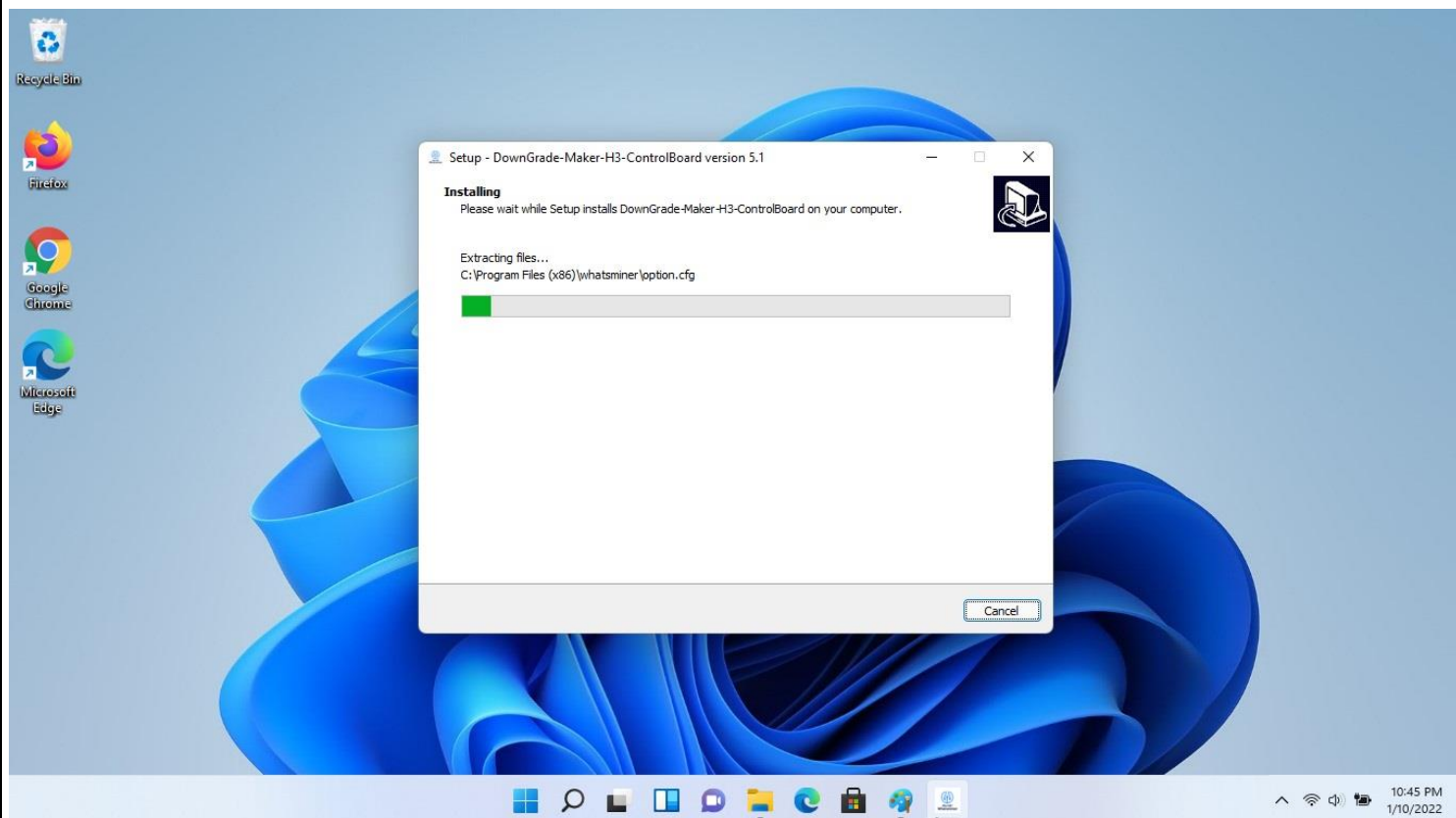




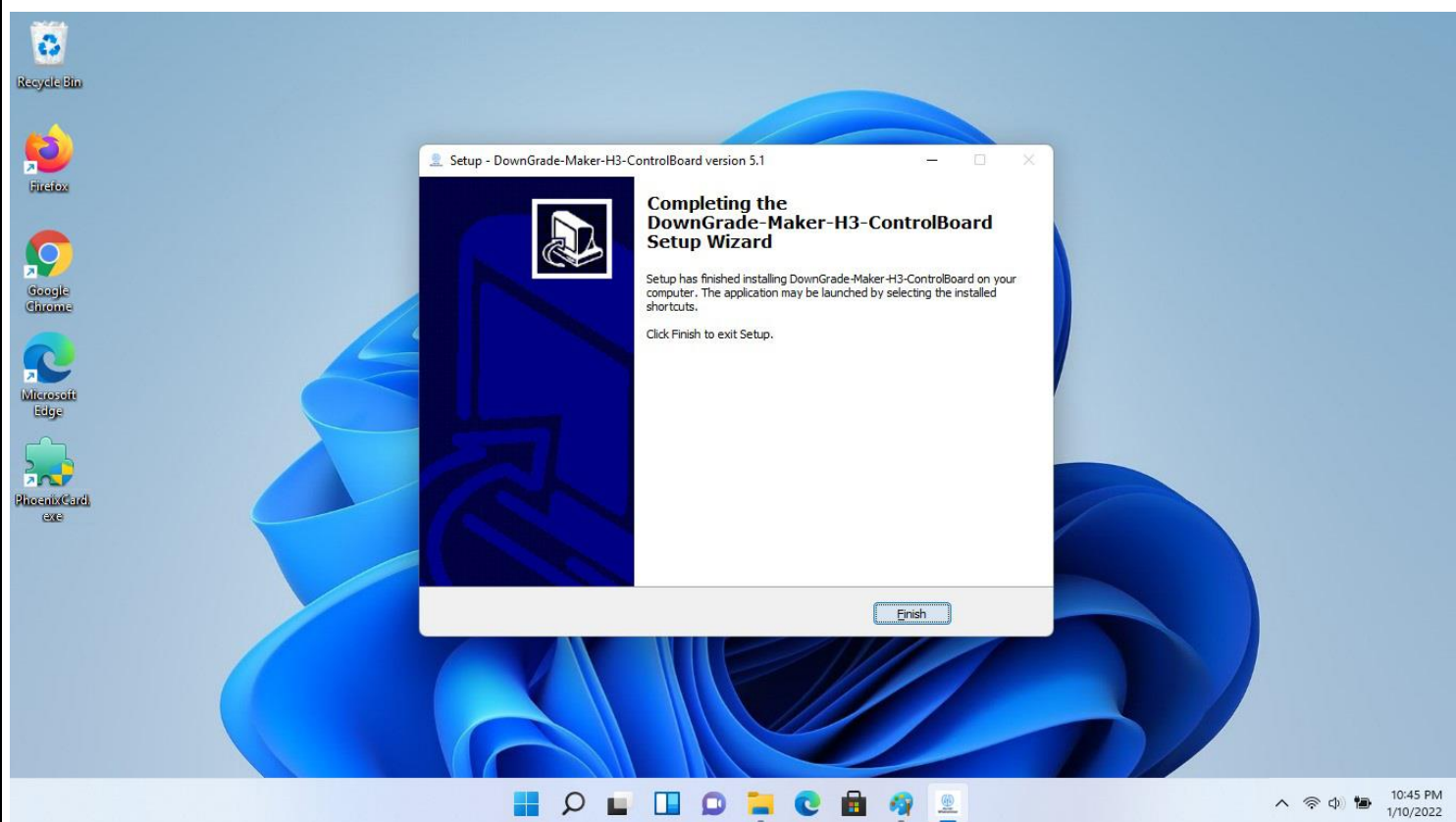
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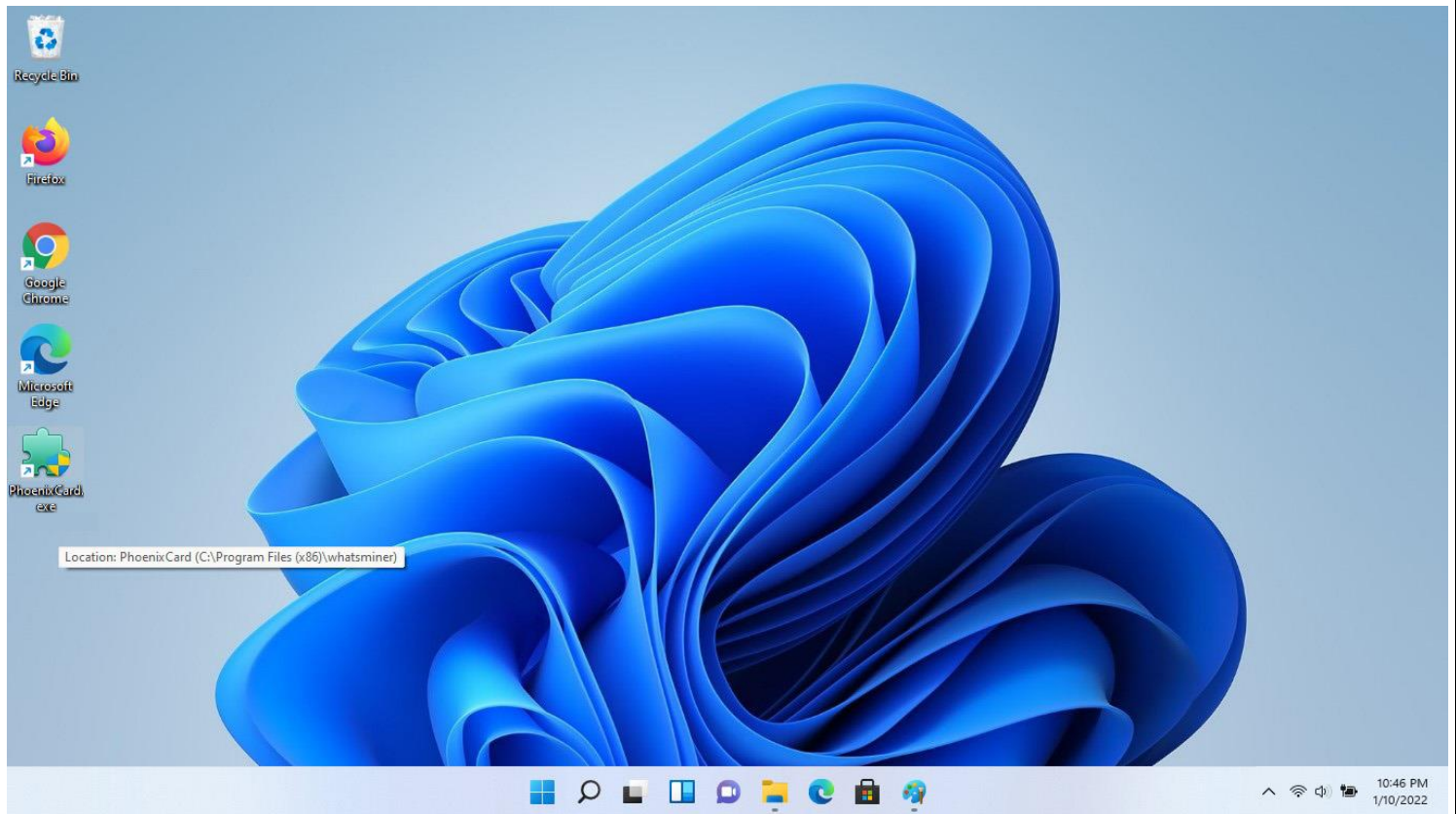




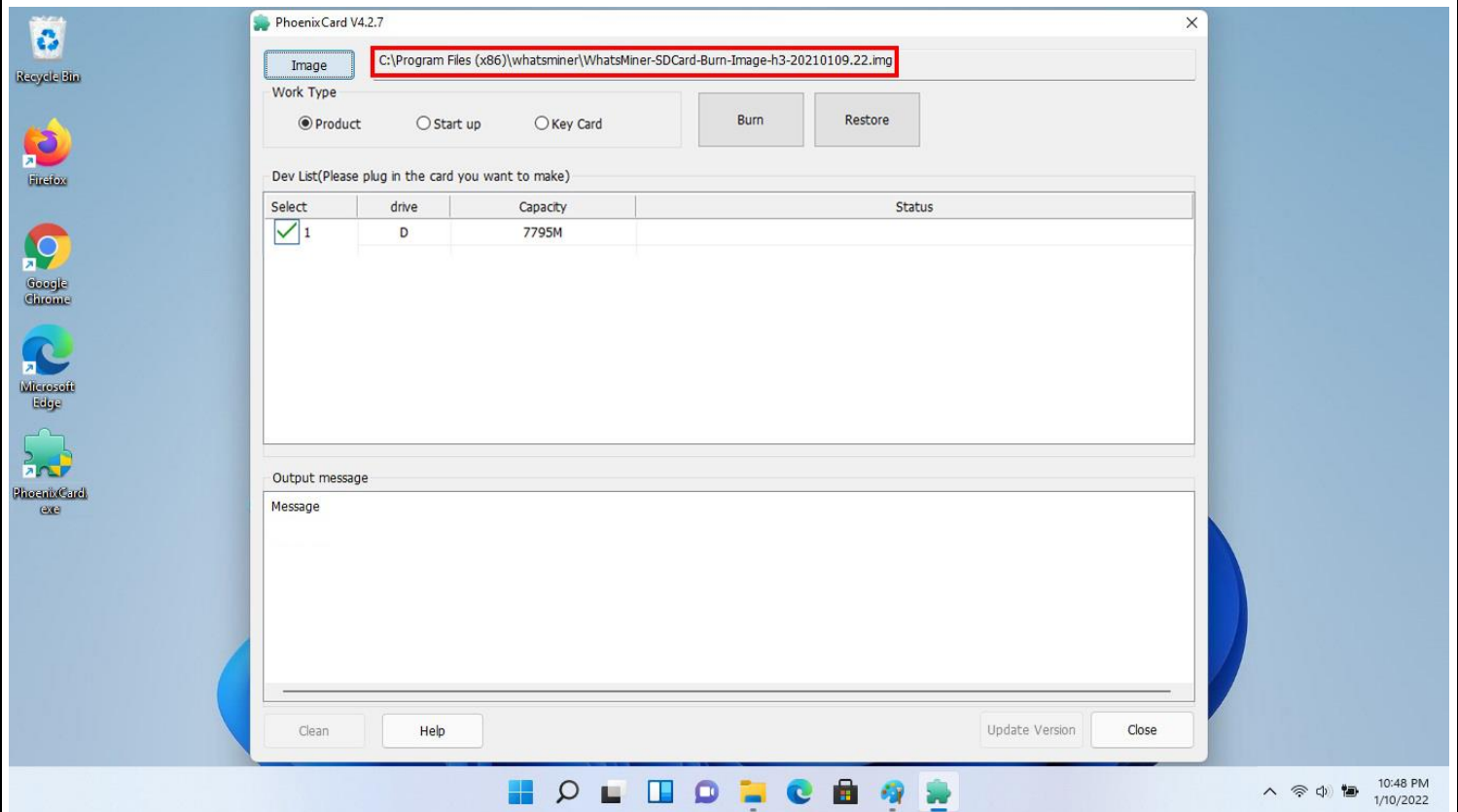
t.me/Asicbost



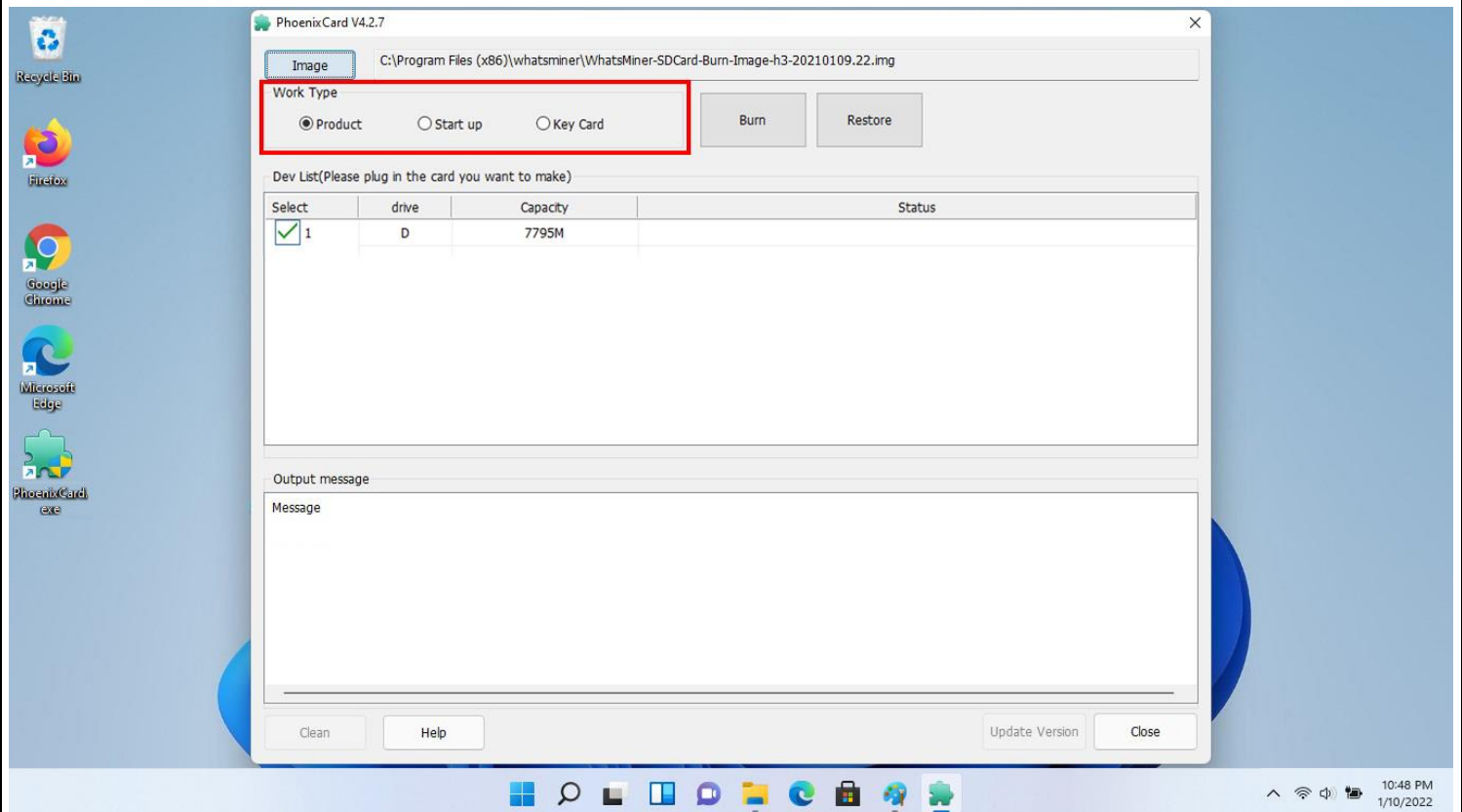
- 6- After installation, an image file (.img) will be created in the program installation path (As main downgrade file) and also an executable file called “PhoenixCard.exe”, will be created on your desktop. (For burning the SD card)



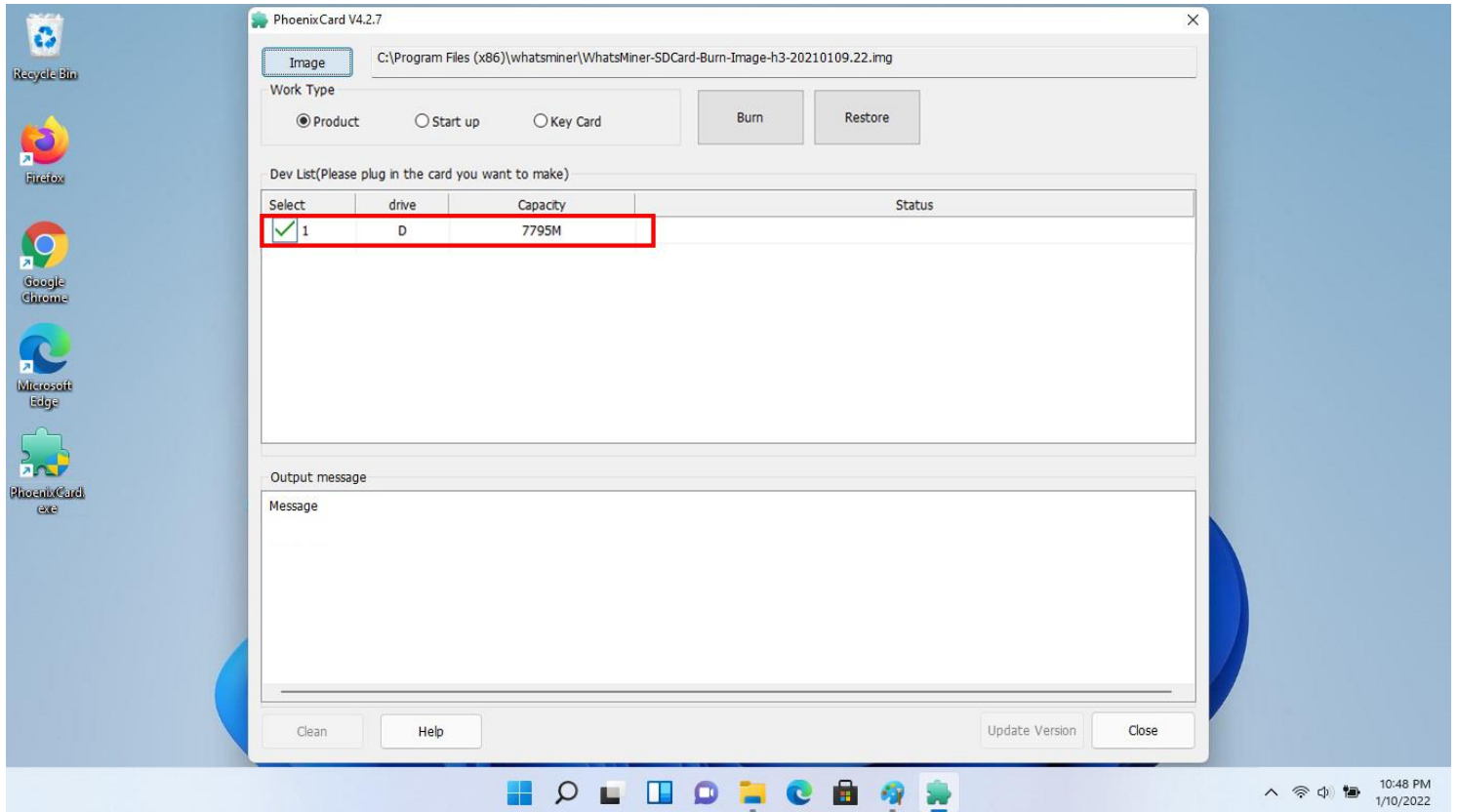
- 7- Connect an SD card (8GB capacity at least) to your computer. (use an appropriate RAM reader)
- 8- Run the executable file created on the desktop. (PhoenixCard.exe)
- 9- Click the “Image” button and choose the image file from the path C: \ Program Files (x86) \ whatsminer. Select WhatsMiner-SDCard-Burn-Image \* .img (\* The file name also includes the control board type and file version.)



10- In the “Work Type” section, select “Product”.



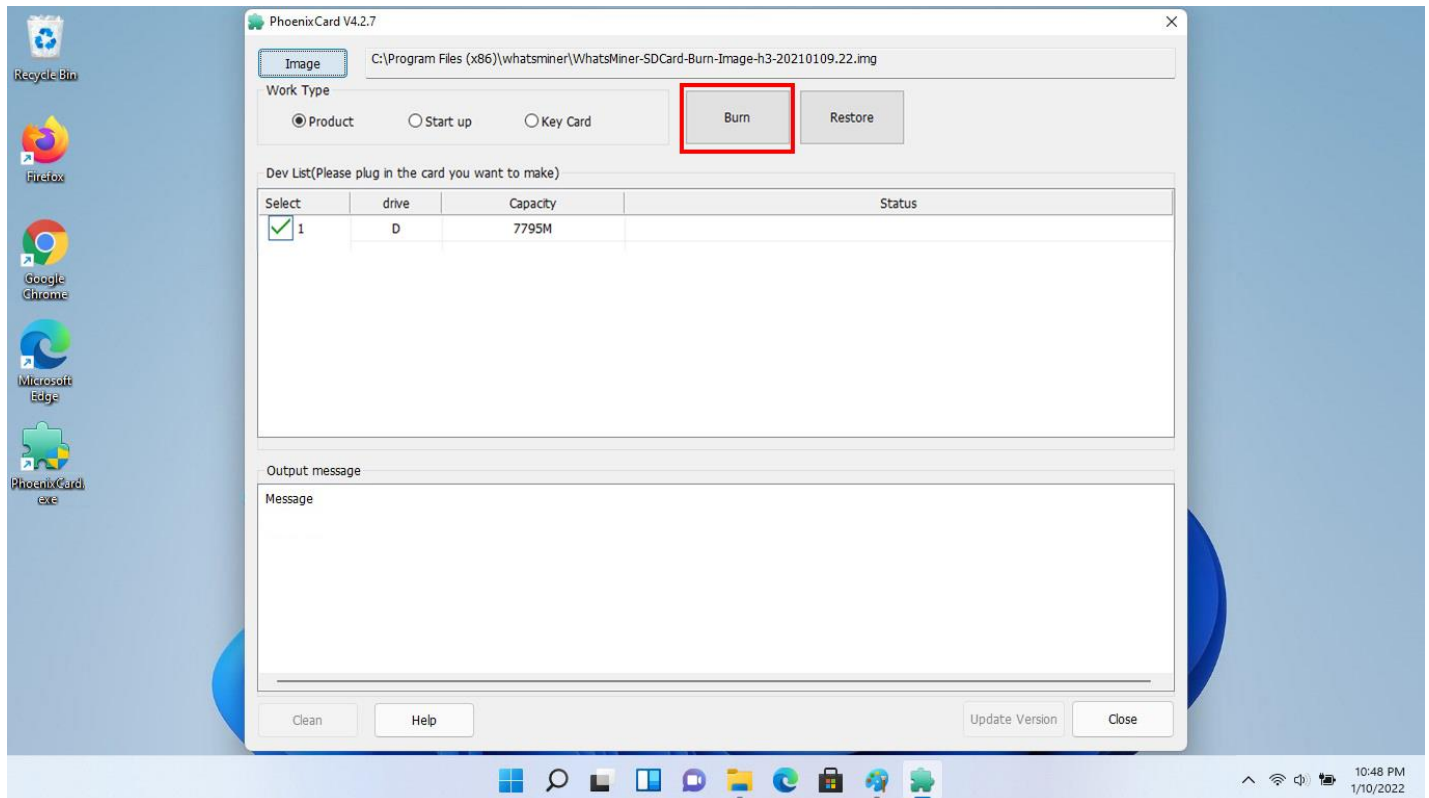
11- Select the SD card.



12- Press the Burn button. After a while, you will receive a successful message.



Now your SD card is ready and you can download your device by following the second step described in this guide.

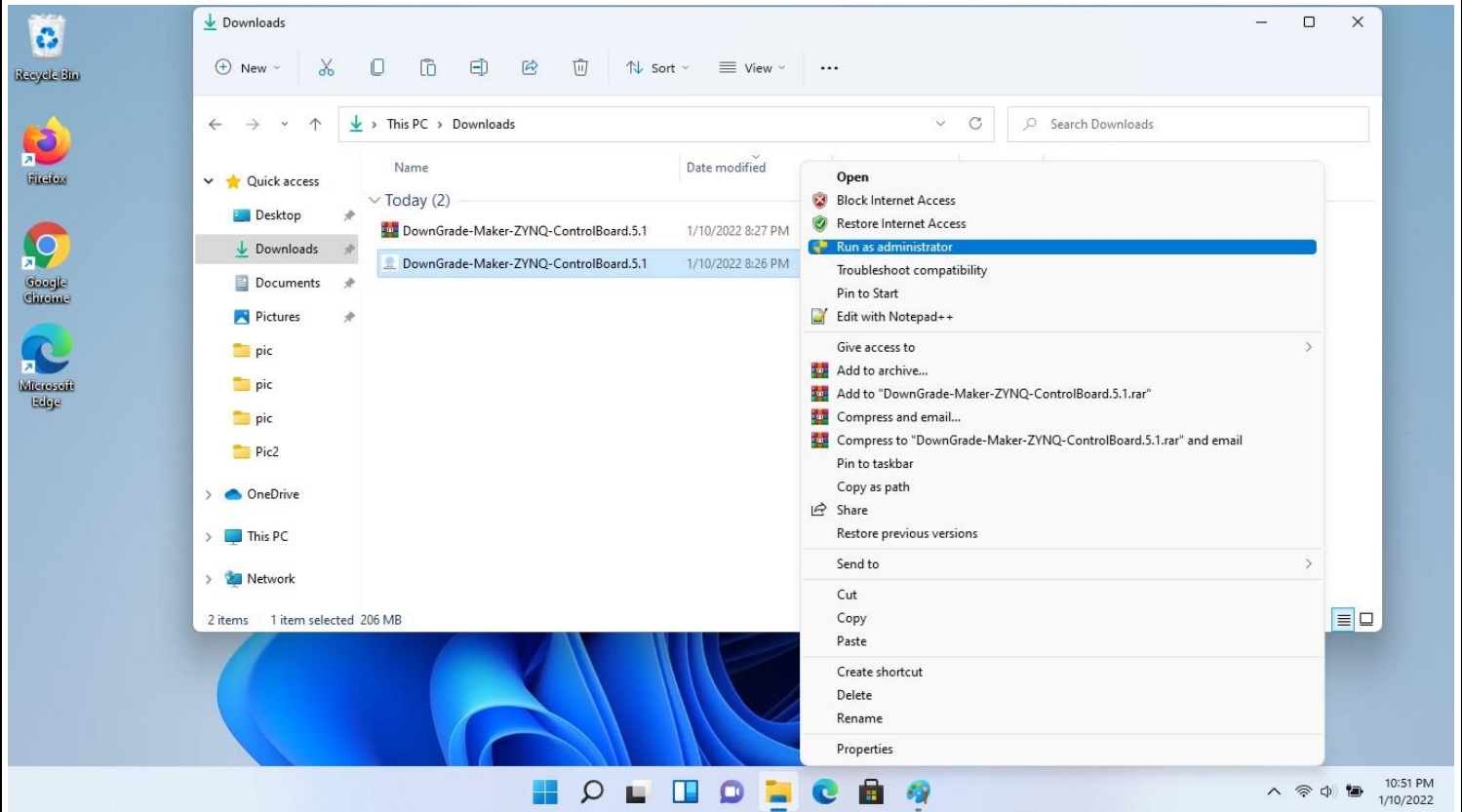


## B. ZYNQ series control boards:

In this type of control boards, the steps of installing and preparing the SD card are as follows:

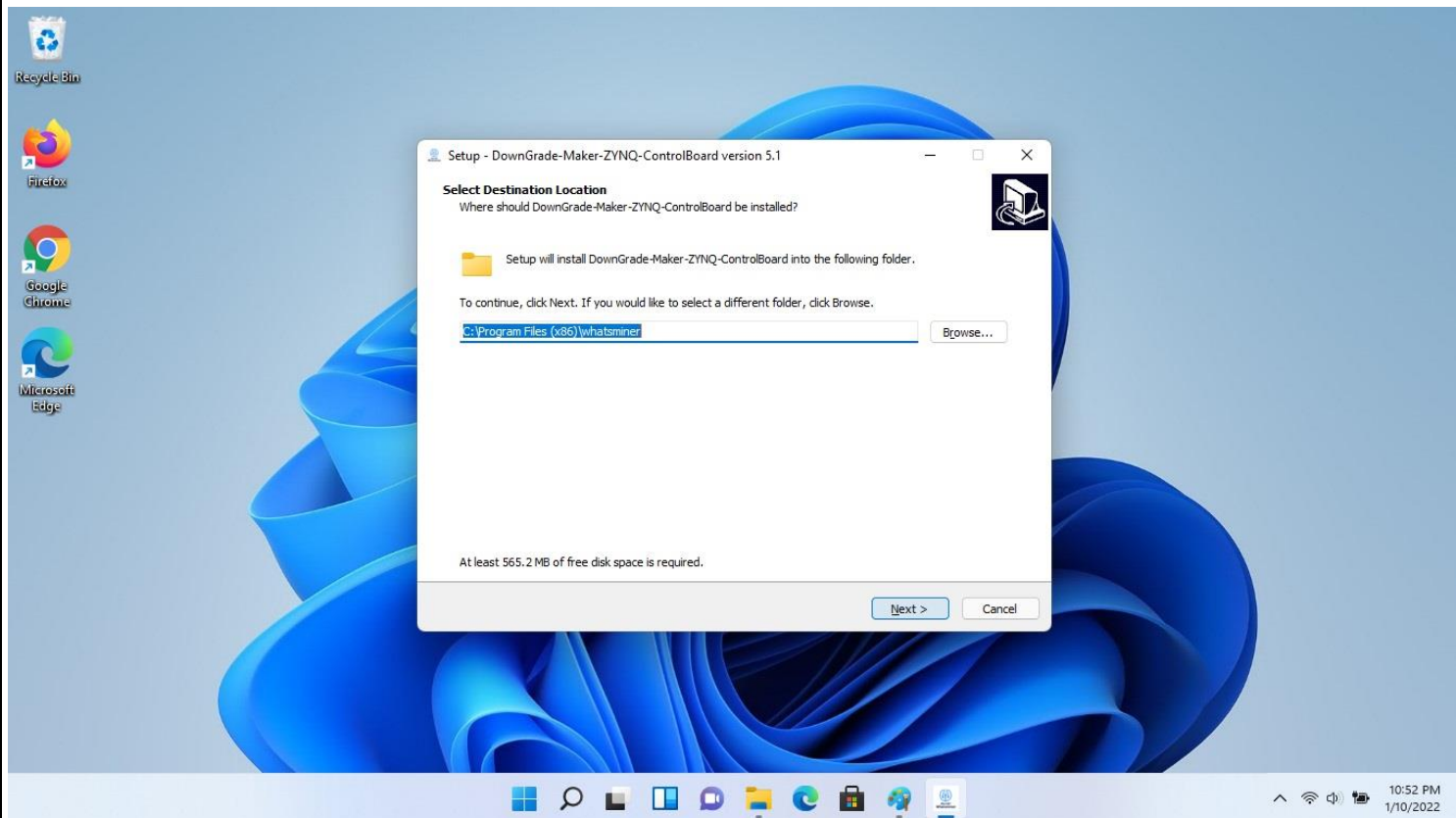
- 1- Unzip the downloaded file in the previous section.
- 2- Disconnect the Internet.
- 3- Right-click on "DownGrade-Maker \* .exe" installation file and select "Run as administrator".

(\* The name of the installation file also includes the type of control board and the version of the file)

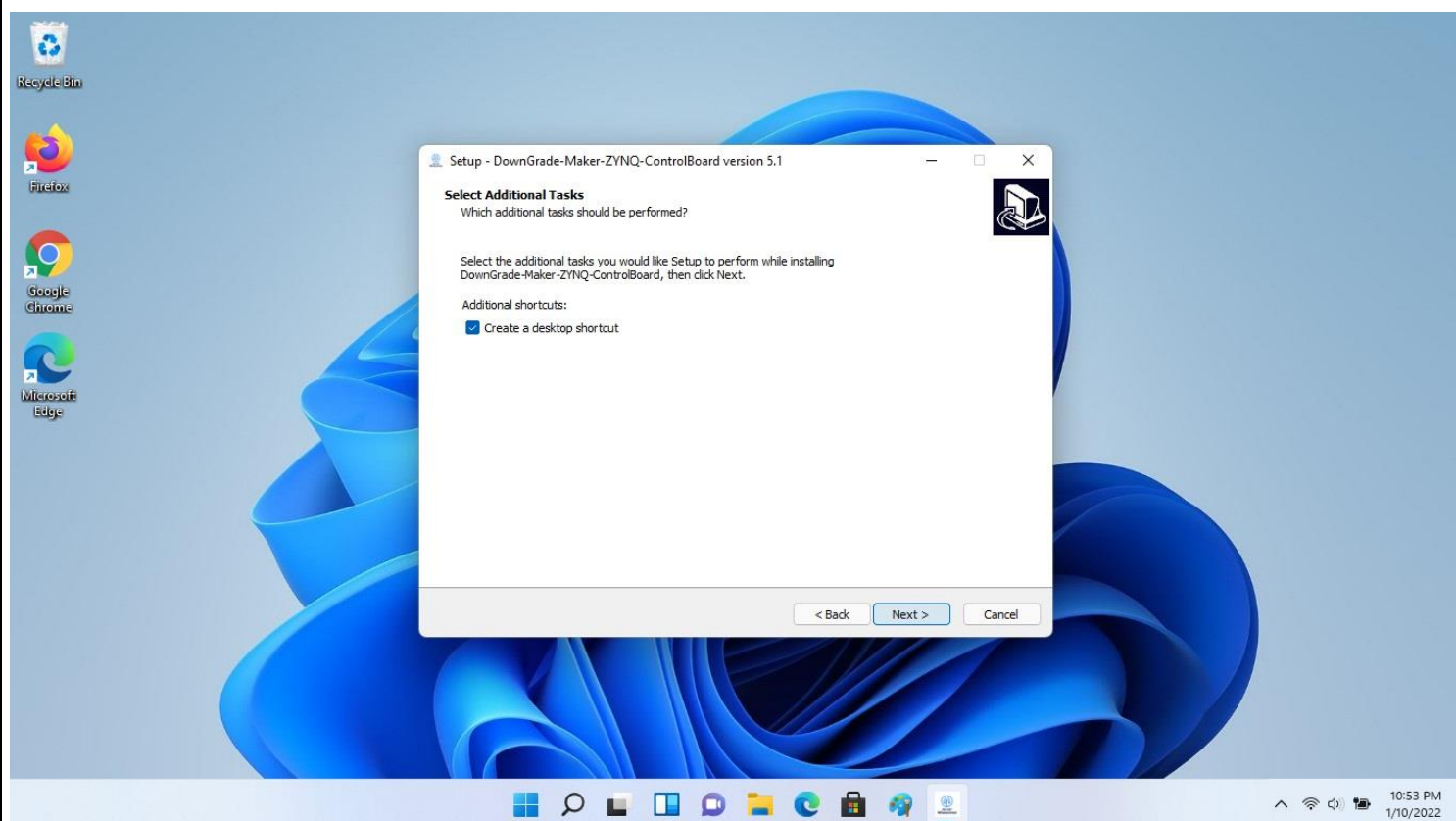


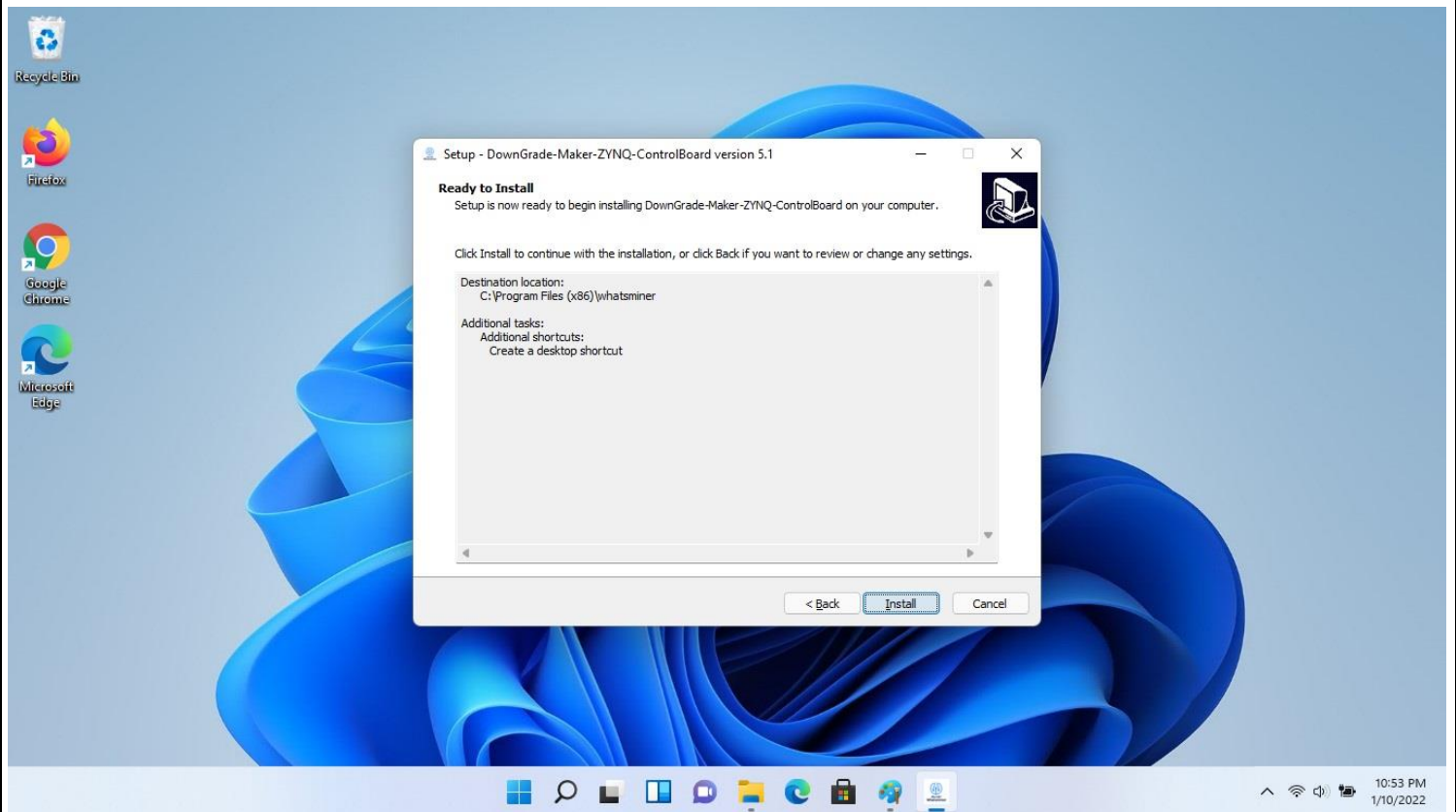
4- Confirm if needed.

5- Follow the installation steps:

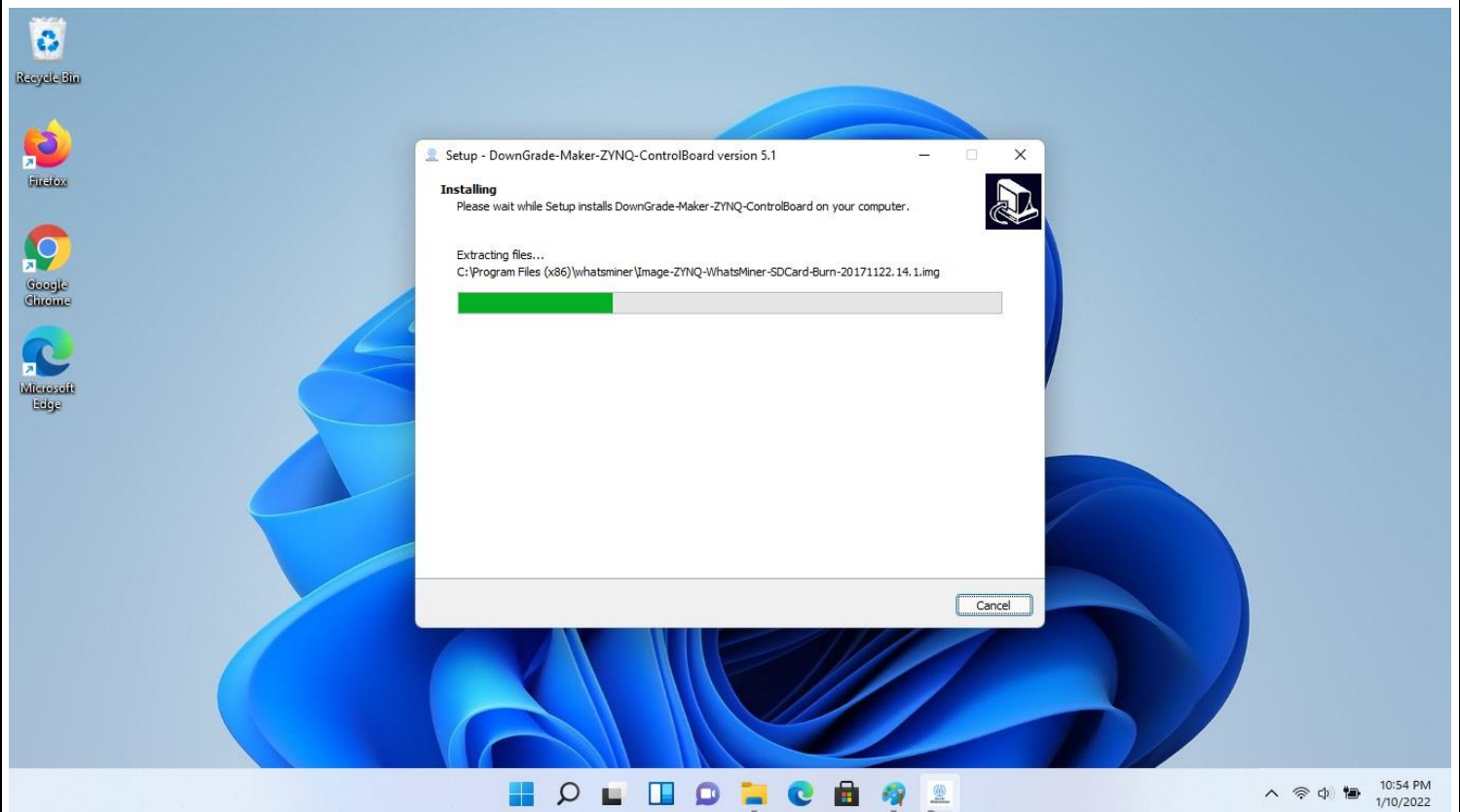


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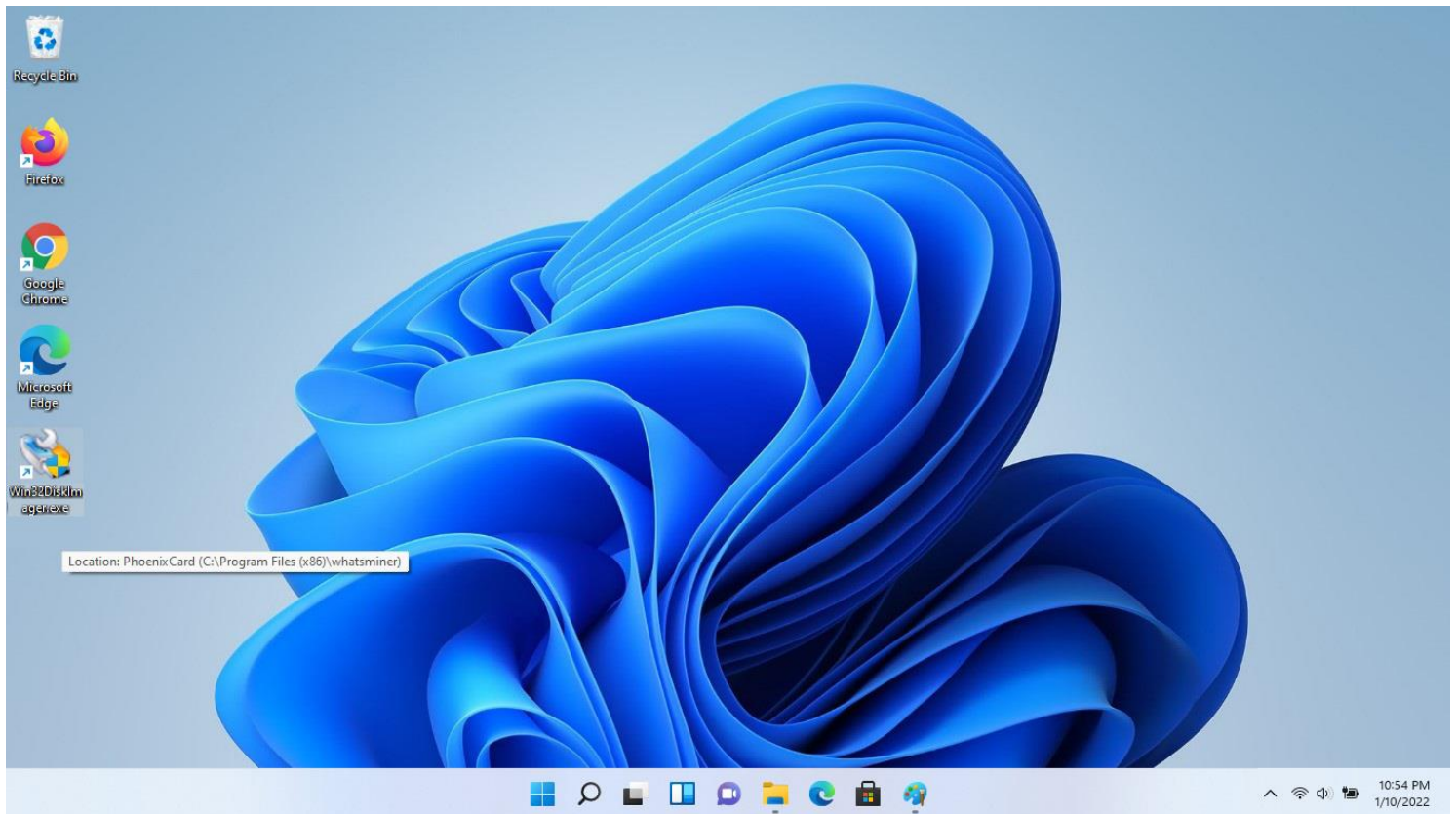






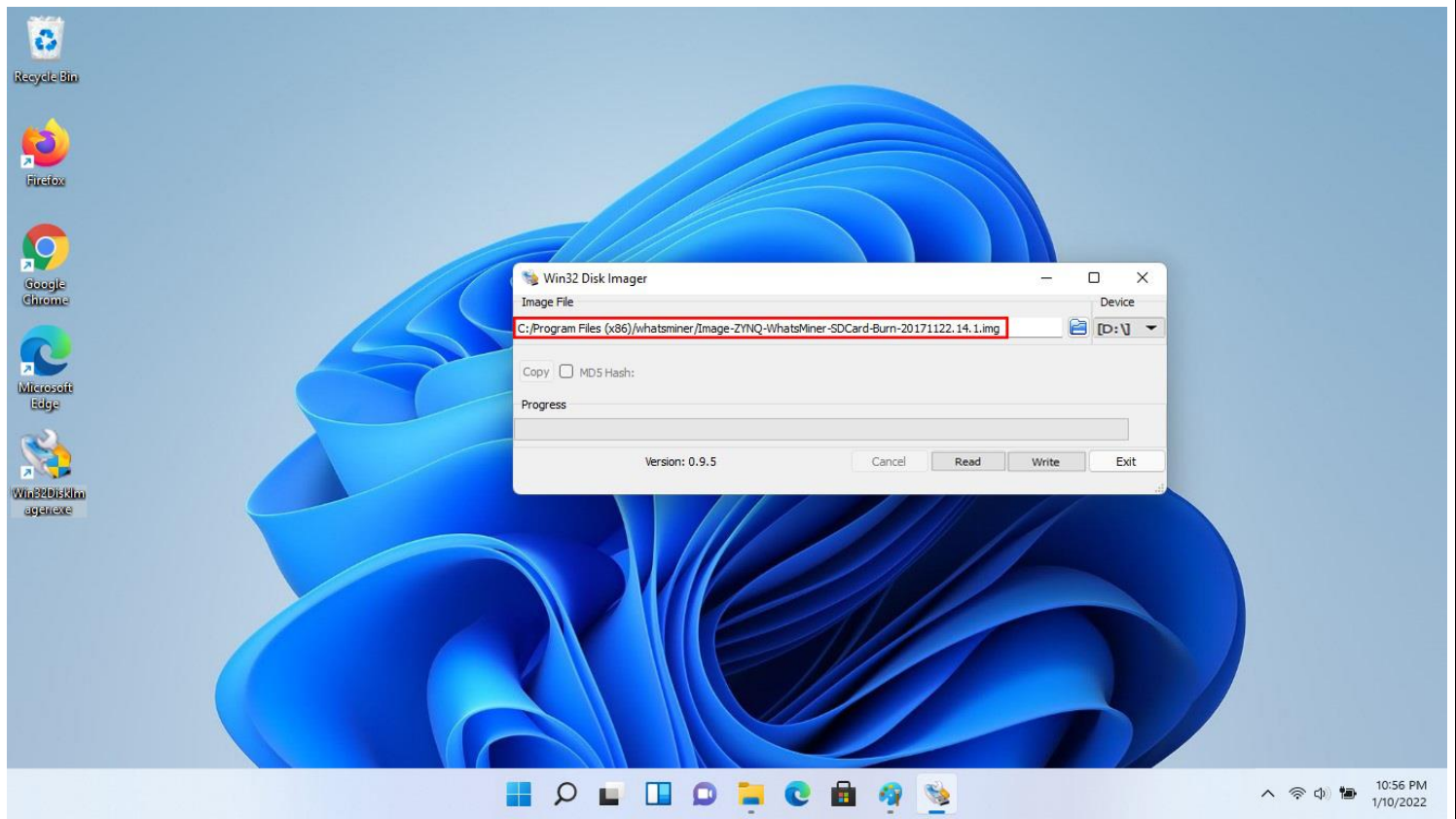
t.me/Asicbost

- 6- After installation, an image file (.img) will be created in the program installation path (As main downgrade file) and also an executable file called “Win32DiskImager.exe”, will be created on your desktop. (For burning the SD card)

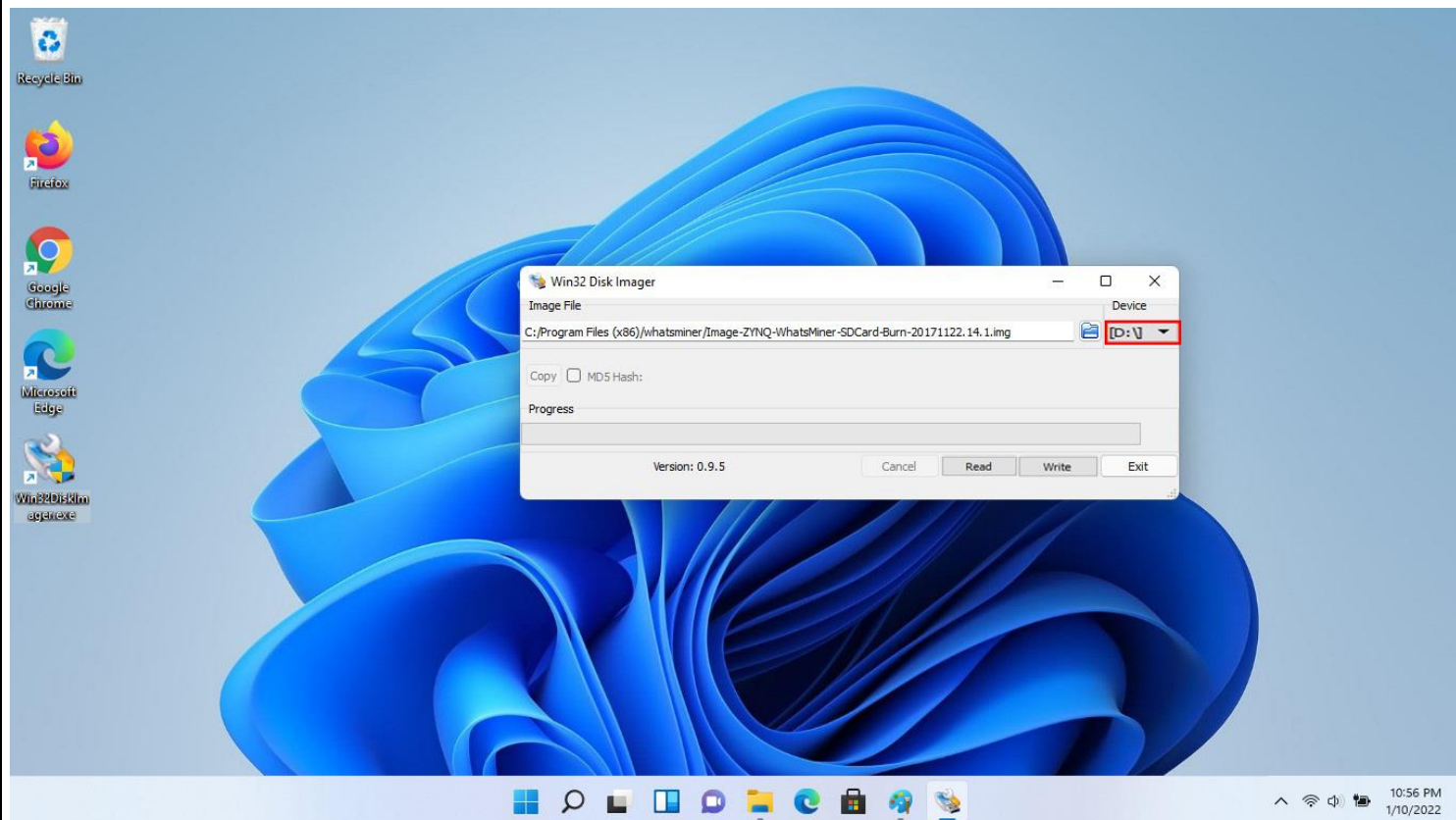


- 7- Connect an SD card (8GB capacity at least) to your computer. (Use an appropriate RAM reader)
- 8- Run the executable file created on the desktop. (Win32DiskImager.exe)
- 9- choose the image file from the path C: \ Program Files (x86) \ whatsminer. Select Image-ZYNQ-WhatsMiner-SDCard-Burn-20171122.14.1.img

(\* The file name also includes the control board type and file version.)

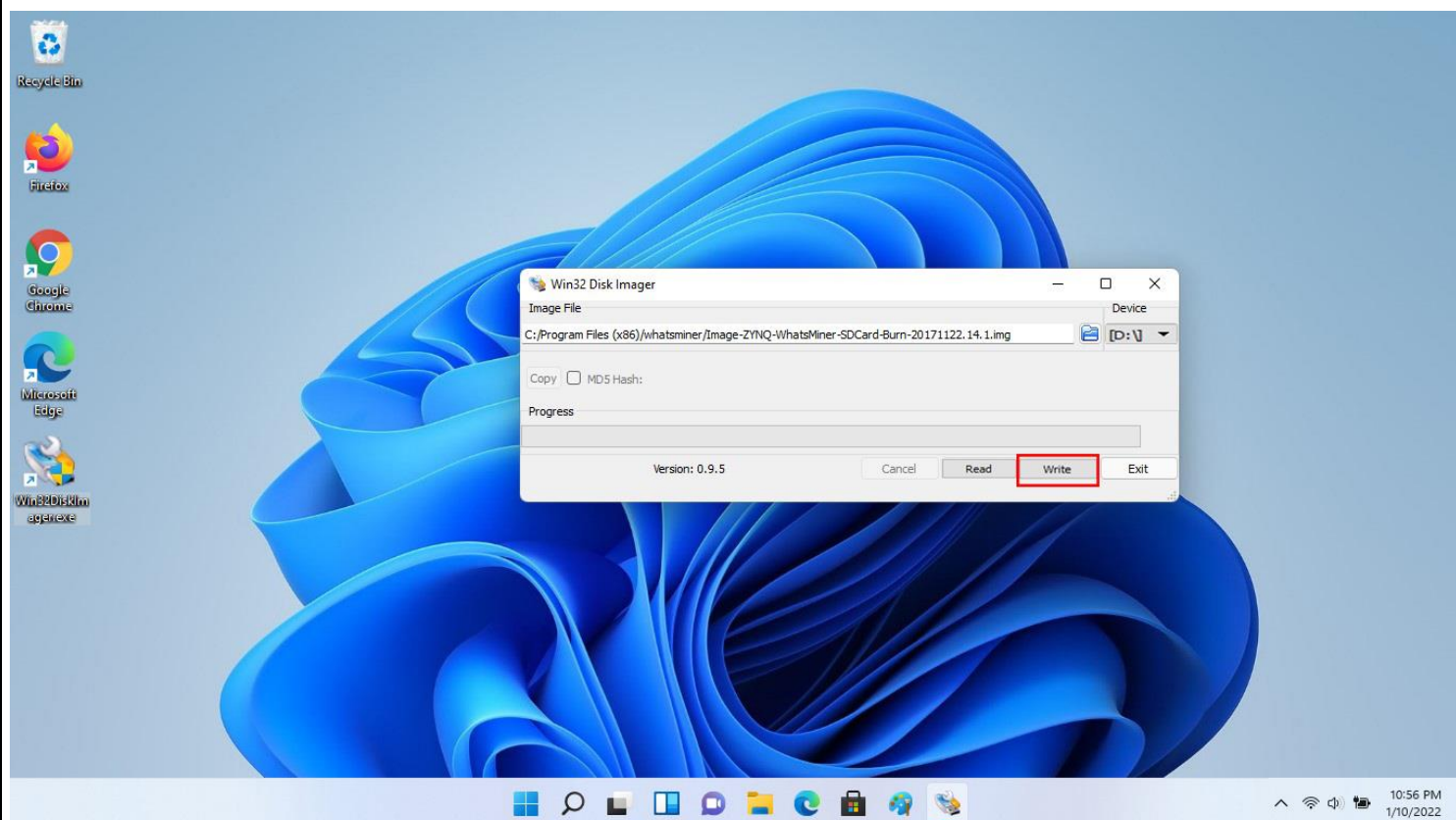


10- Select the SD card.



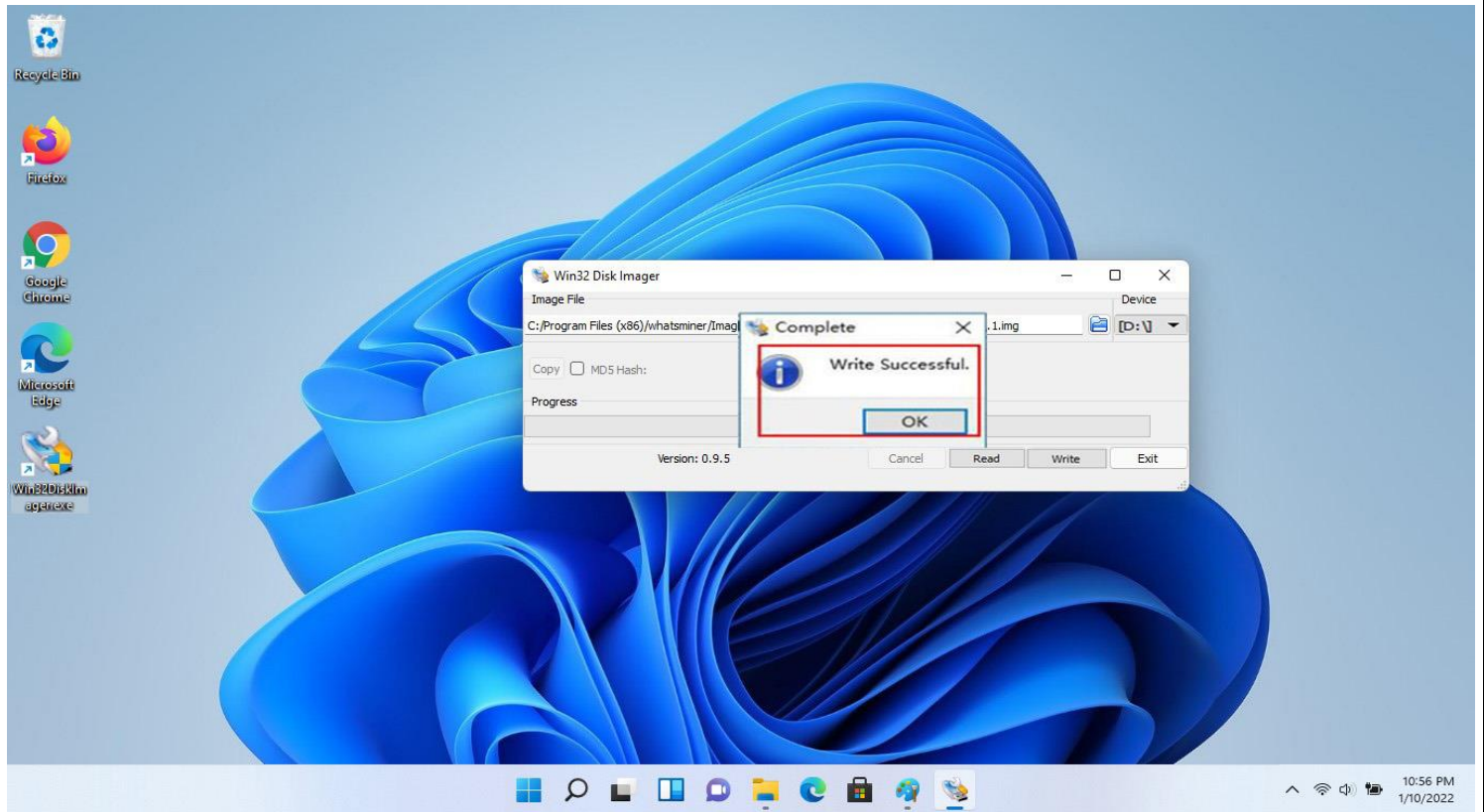
11-

Press the “write” button.





- 12- After a while, you will receive a successful message.  
Now your SD card is ready and you can download your device by following the second step described in this guide.



**Step 2: Downgrade (Flash) Miner using the SD card made in the previous step**

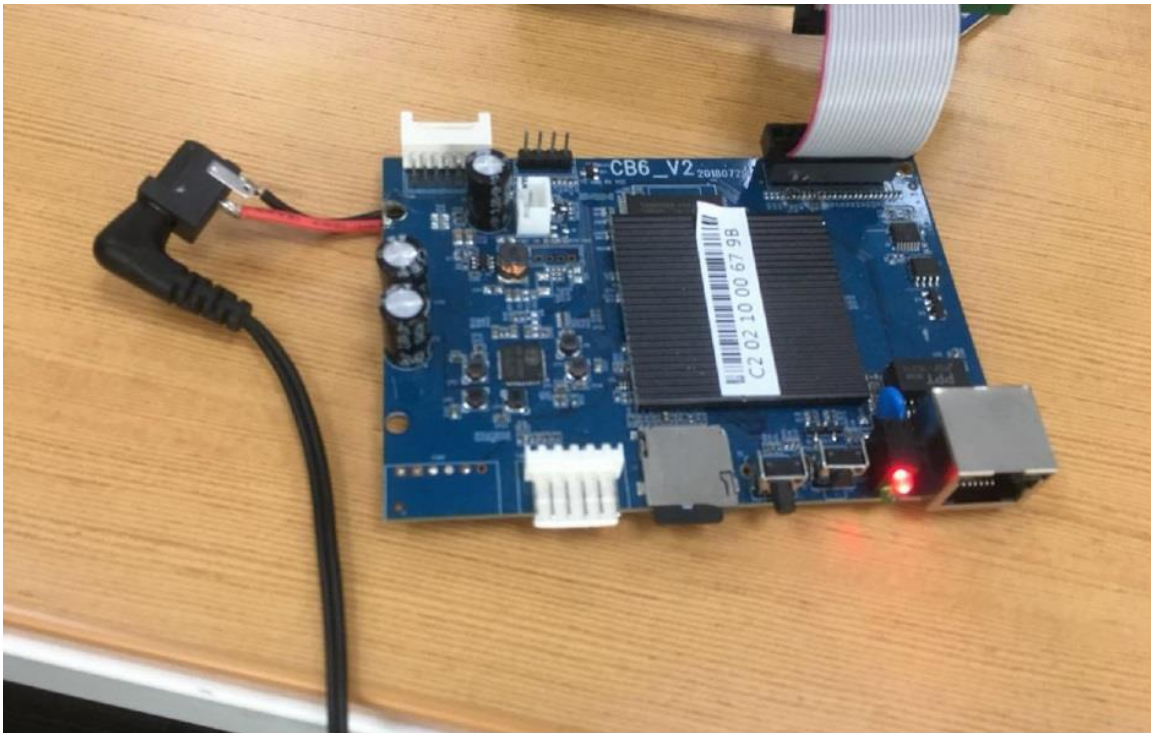
This step is done in one of these three ways, depending on the type of control board:

**I. H3 , H6 , H6OS series control boards:**

- 1) First, disconnect the power cable of the board (or turn OFF the miner)
- 2) Insert the SD card into the slot.



- 3) Now, connect the power cable to the board (or turn ON the miner).
- 4) During the process of downgrade, the green LED is OFF and the red LED is flashing.



5) After the downgrade process is completed, the red LED turns OFF and the green LED turns ON.



6) Disconnect the power. (Turn OFF the miner) and remove the SD card.

7) The miner downgrade is finished.

- It is recommended to **upgrade** the device with the latest firmware version after downgrade.



## II. ZYNQ series control boards:

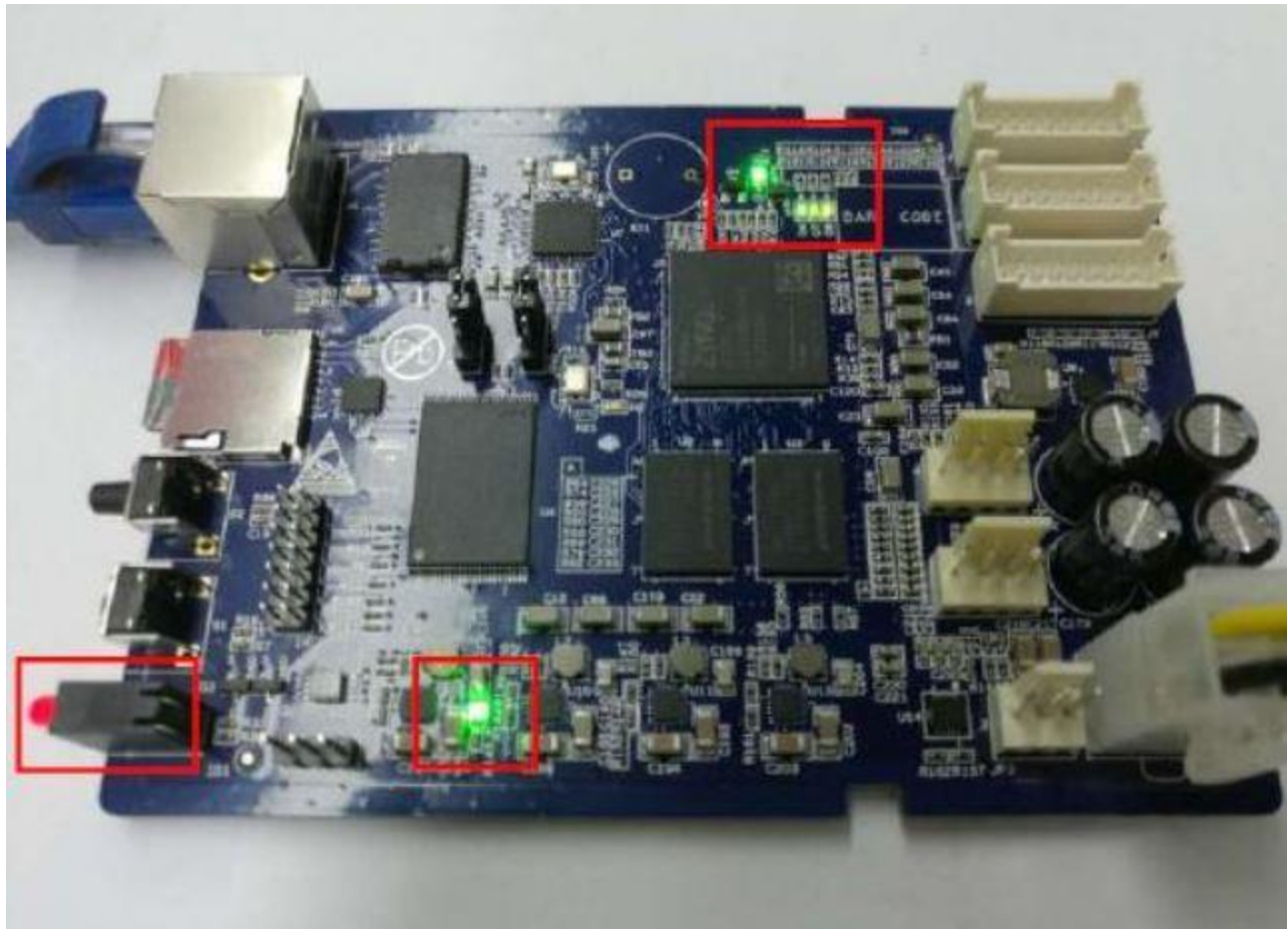
- 1) First, disconnect the power cable of the board (or turn OFF the miner)
- 2) Insert the SD card into the slot.
- 3) Put JP1 and JP2 jumper pins in the VCC connection position.
- 4) Now, connect the power cable to the board (or turn ON the miner).



- 5) After connecting the power, the device enters the “downgrade mode” and the LED turns ON for 15 to 20 seconds and then turns OFF for 40 seconds. During this time, the firmware is loaded on the flash memory of the device board. (Downgrade)



- 6) After the downgrade process is completed, The green and red LEDs flash. (1 second ON and 1 second OFF)



- 7) Disconnect the power. (Turn OFF the miner) and remove the SD card.
- 8) Return the JP2 jumper to GND status. This returns the device to “Running Mode”.
- 9) The miner downgrade is finished.
- It is recommended to **upgrade** the device with the latest firmware version after downgrade.

**Note:** In a few cases, due to differences in hardware and different versions of Windows, if the mentioned files would not be created on the system by installing the software, it is recommended to perform all the steps with another computer.

**Final note:** In order to optimally operate the miner devices and remove the noise (which sometimes causes the devices to reset or completely clean their firmware), your farm must be equipped with a “Standard Earth System”.

By subscribing to our Telegram channel, you will benefit from hundreds of important articles about miner overclocking miner, ways to reduce miner power consumption, miner silencing, miner repairs, etc.

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