Baikal miner

QUADRUPLE

USER'S GUIDE

http://www.baikalminer.com

Start Quadruple Cube

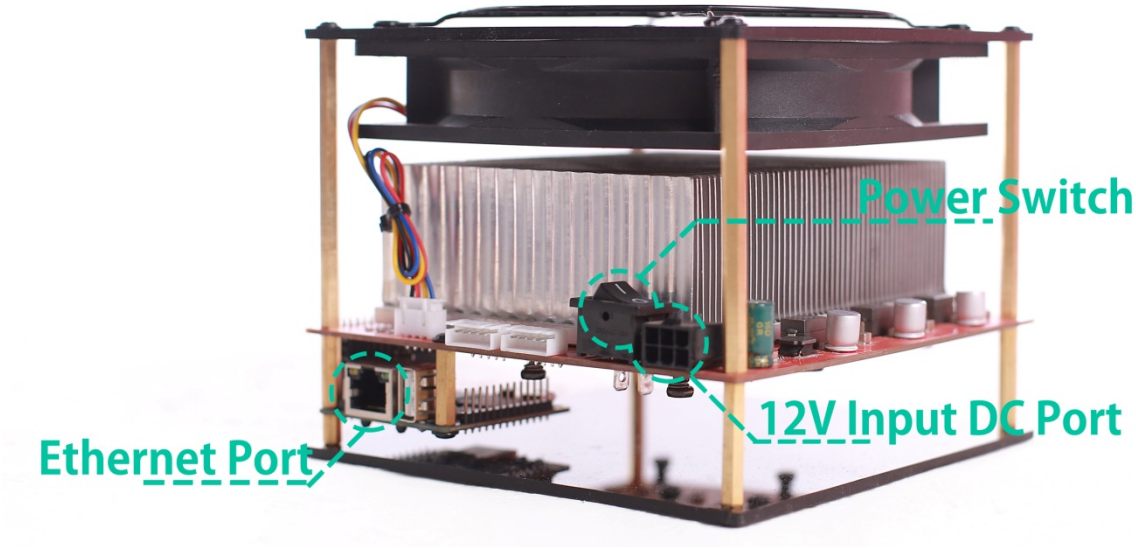
Installation guide

✓ Quadruple Cube Specifications

Hash Rate	1200MH/s(±10%)
Input Power	12V/10A DC
Interface	Ethernet
Operation Temp	0 ~ 40 ℃
Dimension	135mm(L) x 135mm(W) x425mm(H)
Weight	3010g

Algorithm	Hash Rate	Power (at the wall, with 25℃ ambient temp)	Power Efficiency
X11	1200MH/s±10%	300W±5%	0.25J/MH
X13	1200MH/s±10%	348W±5%	0.29J/MH
X14	1200MH/s±10%	356W±5%	0.29J/MH
X15	1200MH/s±10%	364W±5%	0.3J/MH
Quark	1200MH/s±10%	200W±5%	0.16J/MH
Qubit	1200MH/s±10%	220W±5%	0.18J/MH

✓ Introduction

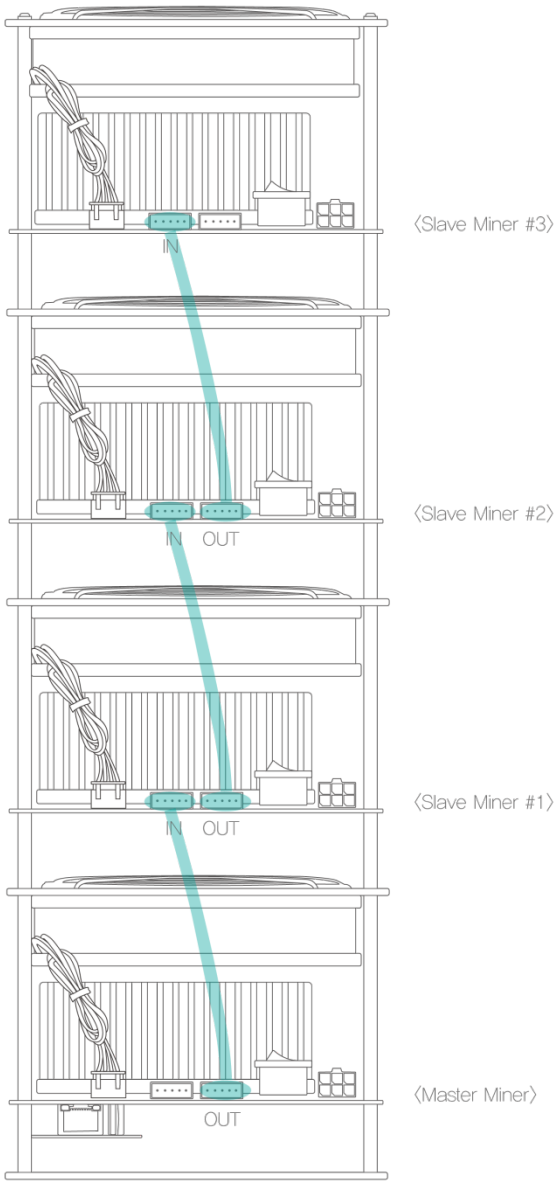


✓ Package Contents

Quadruple Cube Miner *1ea
5-pin single row cables *3ea
PCI-e connector with 5 x Ø2.5 DC Plug *1ea

✓ Connection Guide

1. Connect each miner with 5-pin single row cable as attached below.



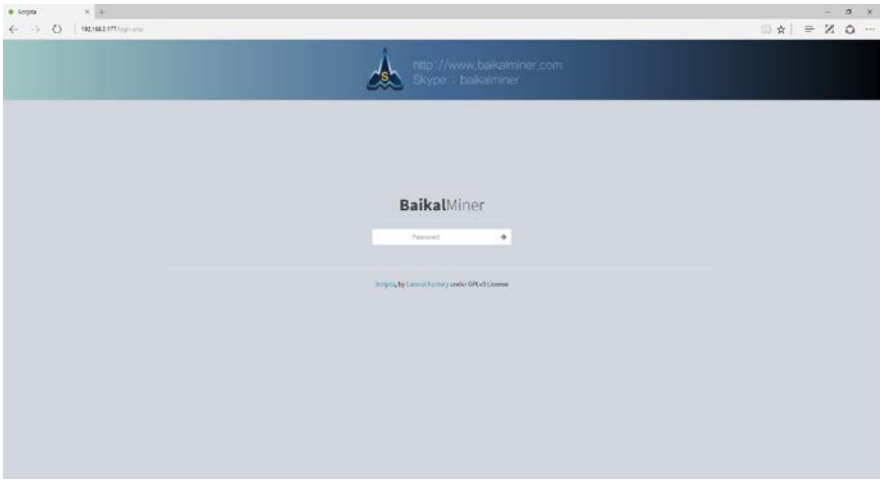
   Make sure not to connect/remove any of these cables when the switch is on, which can cause serious damage to your device.
2. Connect Master miner to Ethernet with Ethernet cable.
3. Plug power cable to 12V 10A DC port on every layer and to the power outlet as well.
   Make sure all the switches are off when plugging in.
4. Turn the switch on in order from the top to the bottom and

check if you have blinking lights on at the Ethernet Port.

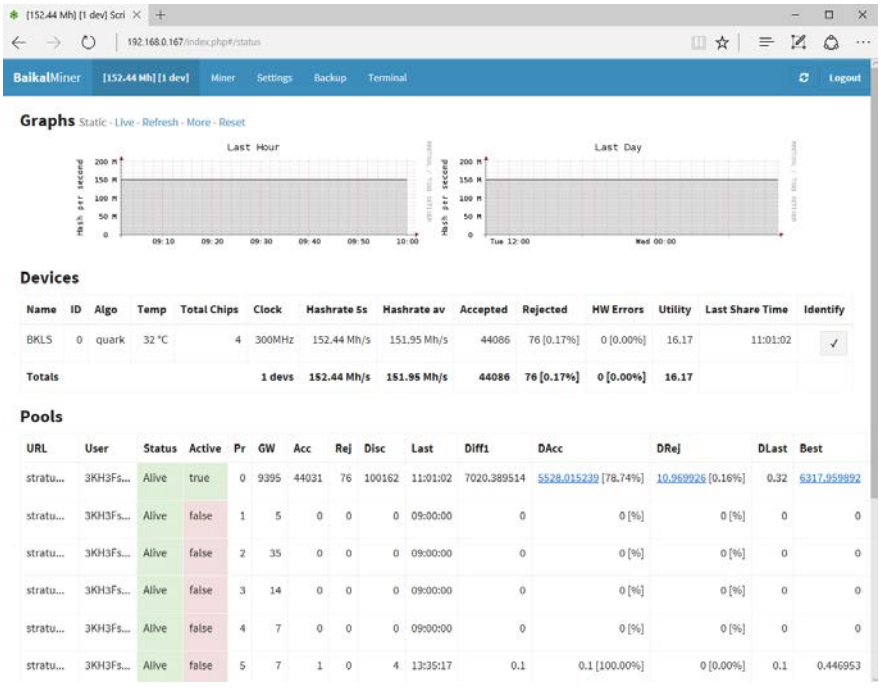
5. Switching off also goes in order from the top to the bottom as well.

✓ Pool setting

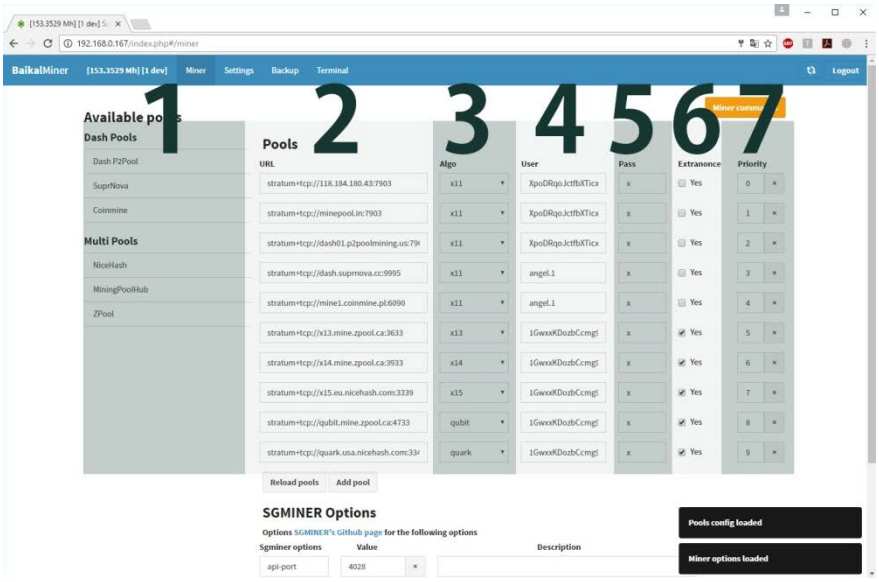
1. Enter Cube IP address on your web browser to access pool setting page and log in with ‘baikal’ as password.
   (IP address can be found either on setting page of your internet router or by using our program *BaikalScanner.exe* from [download link])



2. First page you’d see if you log in successfully.



3. Go to Miners tab to set pool lists and give them mining details.



① Pool links for your information

② Server URLs from each pools.

③ Select Algorithm type.

④ Enter your wallet address.

⑤ Pool password (normally set as x)

⑥ Check box for pools supporting Extranonce.

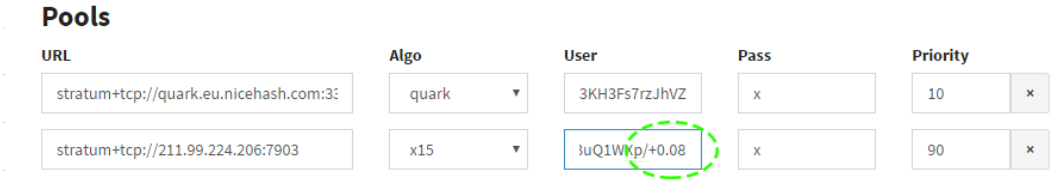
- Check the box if the pool supports Extranonce (such as nicehash or zpool etc.)
- Leave the box unchecked if the pool doesn't support Extranonce.
- Availability of supporting Extranonce should be asked to Pool Operator.

⑦ Give priorities with your own numbers; However, the first number should be 0. The system counts lowest number (which is 0,) as first and the next as second regardless how big are the numbers.

Note

For P2Pool you should add /+0.08 at the end of your account to manage the hashrate for the best outcome.

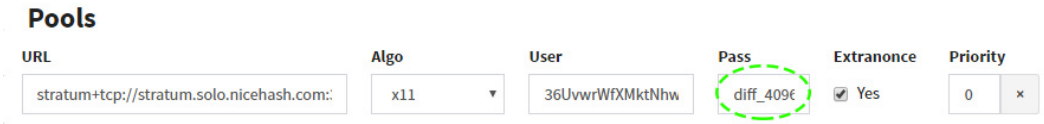
Example)



Note

If you are solo mining at Nicehash, add “diff_4096” as below to the password field.

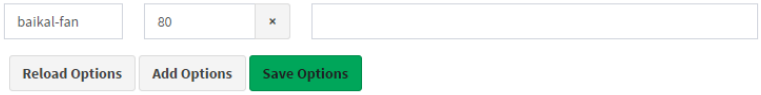
Example)



Link for more details : *Can I adjust mining difficulty*

Note

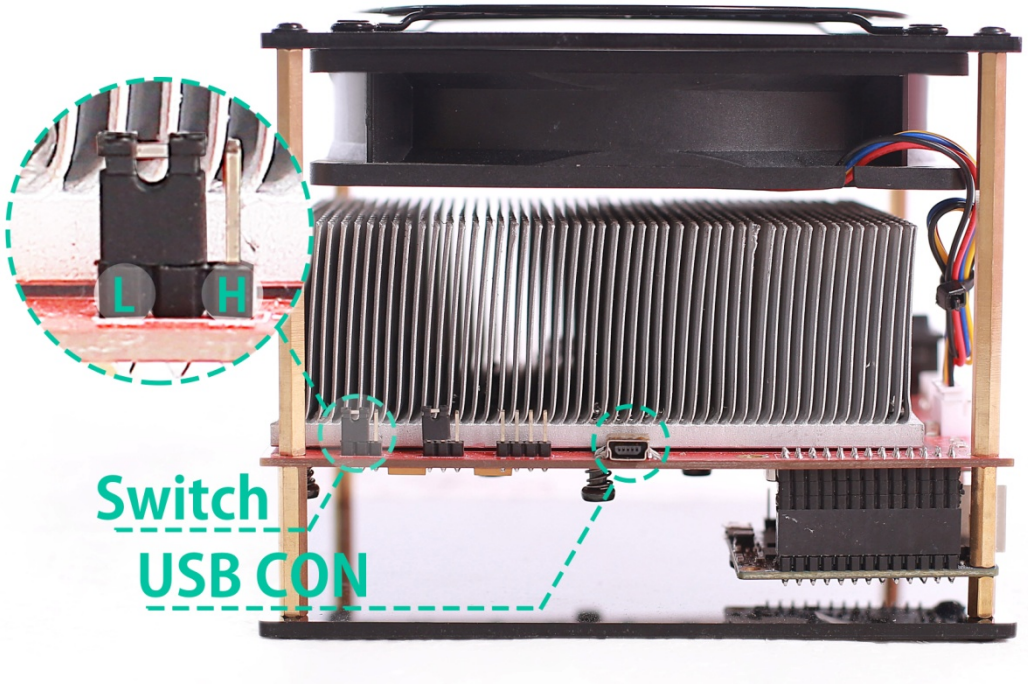
Fan speed can be adjusted through the control as below (0~100%)



Keep Quadruple Cube Up-to-date

Upgrade guide

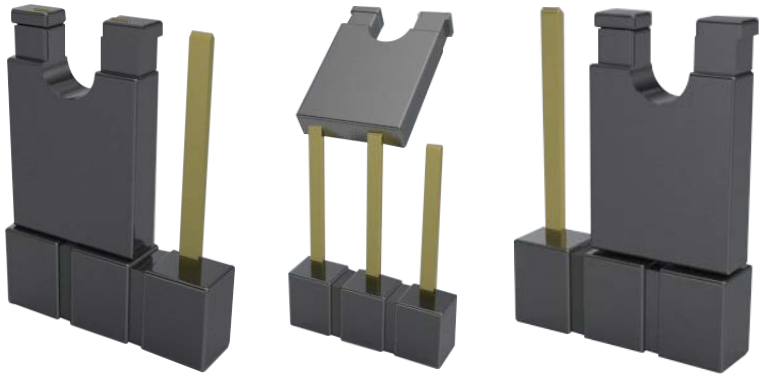
✓ Configuration



	Description
Switch	Boot mode setting. H : DFU boot mode , L : Normal
USB CON	Cube USB connector.
LED	Show DFU boot mode enter in 'H' of Switch. RGB is blinking one by one.
USB mini cable	USB A to Mini-A5p Cable

✓ Firmware Update

1. Before the installation
   ① Power off Quadruple Cube by switching off from top to the bottom
   ② Remove 5-pin single row cables connecting each miner.
   ③ Switch all Switches to H.



Mode L Mode H

④ Choose one miner to work on.

⑤ The whole process from below to the end should be repeated to apply upgrades to every layers of Quadruple Cube.

⑥ Connect USB mini cable into USB CON of the selected board.

⑦ Turn the switch on of the very board. If LEDs have lights flow through it means the device is on the installation mode.

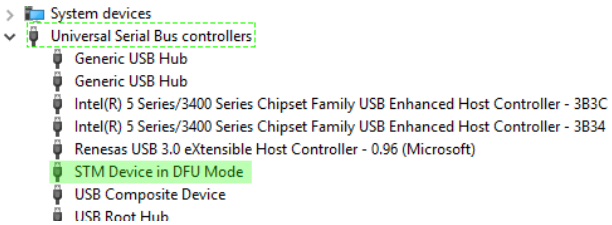
⑧ Download following list of updating tools available from here (Baikal_Cube_V00_DATE.zip):

Name	Description
dfu-util.exe	USB DFU(Device Firmware Utility) utility.
update_firmware_cube.bat	Firmware update batch file.
zadig_2.1.2.exe	USB Driver Installer
baikal_cube.bin	Firmware binary image.

2. Install DFU Utility driver

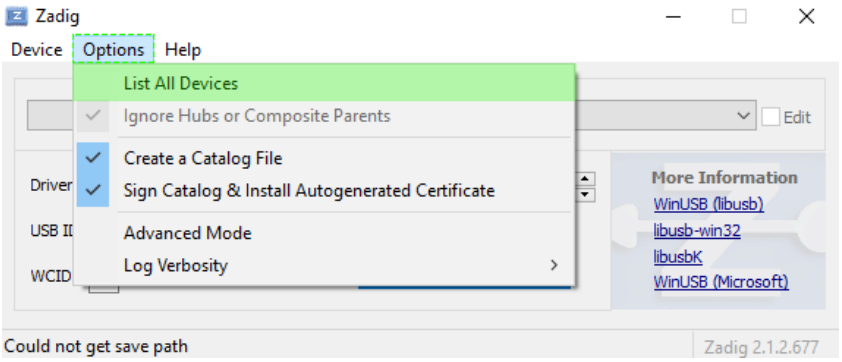
① Connect the other end of USB mini cable to your PC.

② Check if you have STM Device in DFU Mode on device manager.

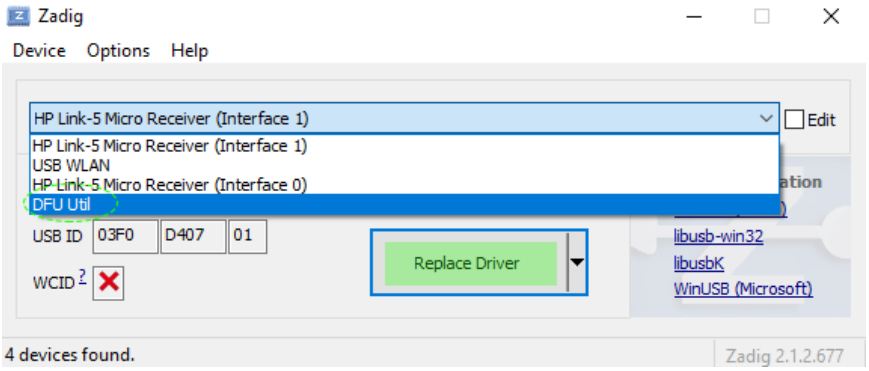


③ Run zadig_2.1.2.exe

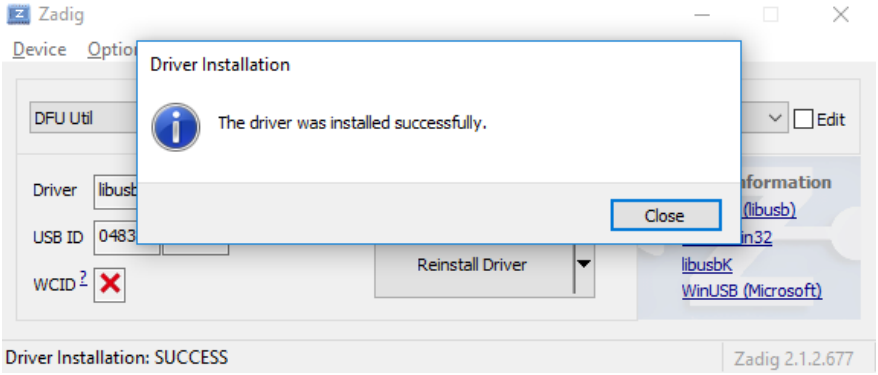
④ Select Options>List all devices.



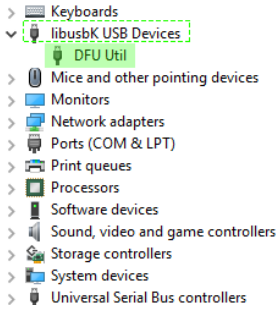
⑤ Select ‘DFU Util’ on USB device list, then replace driver.



⑥ It should be followed by pop-up message below.



⑦ DFU Util would appear as a replacement of STM Device in DFU Mode on Device Manager if installed successfully.



3. Update firmware

① Run update_firmware_cube.bat and console window would pop up.

② When the progress reaches 100% window will close itself.

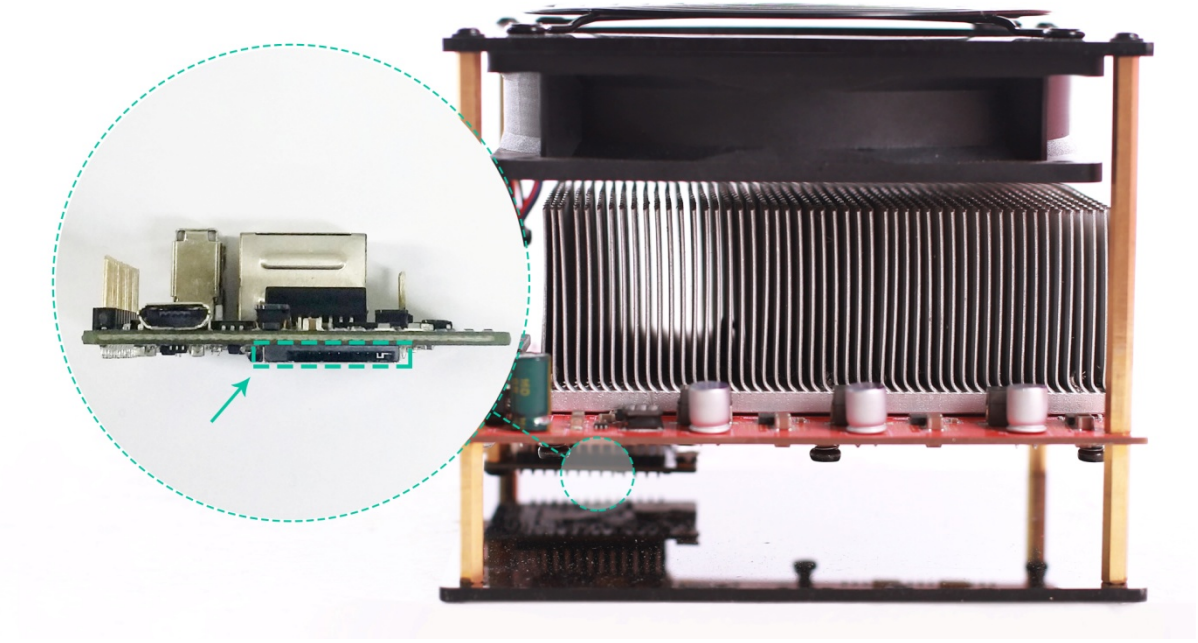
4. Finish
   ① Switch off the board.
   ② Remove USB mini cable from USB CON.
   ③ Go on to the next board to work on. Repeat from Step 01-5 to Step 04-3 until finishing all of 4 boards.
   ④ Set all Switches to ‘L’.
   ⑤ Connect each board with 5-pin cables.
   ⑥ Power on in order from the top to the bottom.

✓ SD Card Update

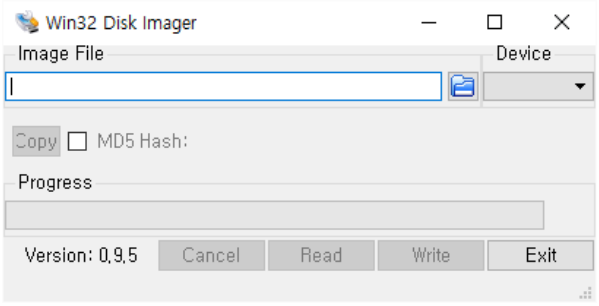
OrangePI SD Card setup guide

1. Download PiZero image and Win32diskImager Utility from following links :
   Download Link 1 : Google
   Download Link 2 : Baidu

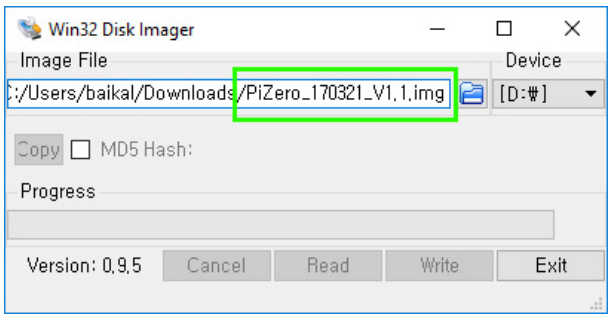
2. Update OrangePI SD Card
   ① Turn Quadruple Cube off.
   ② Remove the SD Card from the OrangePI Controller of the **Master miner**.



   ③ Read the SD card on your computer and check which drive letter it assigned.
   ④ Run the win32diskImager utility.

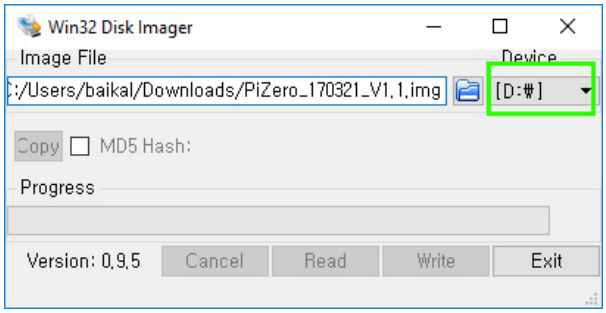


   ⑤ Select the PiZero_170321_V1.1.img



⑥ Select the driver letter of the SD card in the device box.

⑦ Be careful to select the correct drive; if you get the wrong one you can destroy your data on the computer's hard disk!



⑧ Click Write and wait for the write to complete.

⑨ You are now ready to plug the card into your OrangePI.

Link

https://github.com/baikalminer/multi-algo-miner
https://drive.google.com/drive/folders/0B1GBwN5-i39VRzNQS28tWlpsTVk
https://pan.baidu.com/s/1kULEO31#list/path=%2Fcube