

# Electroneum Ubuntu CPU mining

## Electroneum

### About

Electroneum is a crypto that is focussing on the mobile platform. Easy to use and accessible for everyone

[Official website](#)

### Main characteristic

- Secure and private
- Designed for mass adoption
- App based mobile mining
- Signed agreements with global mobile networks
- Provide a digital payment solution to the developing world.

### Wallet

As Electroneum is focusing on becoming the best mobile crypto they have an online wallet with mobile apps.

Wallet page

## Mining Pool

I'm using spacepools to mine electroneum

The official pool has a 0.1 % fee and has a payout of 10 ETN which is pretty low for both.

When selecting a mining pool for CPU mining I suggest to take a pool with a low payout, CPU's mine at a relatively low hashrate depending on which CPU you have.

You won't be generating a loads of coins over a short amount of time so you want to be able to get your mined coins on a higher frequency, keep in mind if you stop mining before the minimum payout has reached they won't give you your mined coins.

Also try to pick a pool closeby (continent), this will also help with mining.

You can always visit the website of your pool and insert your address to look at the progress you are making showing your statistics.

- [Spacepools](#)

## Tools

### XMR-stak-cpu

XMR-stak-cpu is a very easy to use and very configurable tool.  
You can find the tool on their official github.  
During the instructions I'll also include links to pre-configured setups.

- Official XMR github

## Pre-requirement

The requirement for this guide is to have a running Ubuntu 16.04.  
A guide for setting this up will follow soon.

## Instructions

### Risks

Before mining please make sure you are aware of the risks involved.  
Risks

### Written instructions

- To start off we'll do following commands to get everything ready to build the miner binary.  

```
Cd
sudo apt-get --assume-yes update
sudo apt-get --assume-yes install libmicrohttpd-dev libssl-dev cmake
build-essential libhwloc-dev screen git nano
git clone https://github.com/fireice-uk/xmr-stak-cpu.git
cd xmr-stak-cpu
cmake .
make install
```
- Now we'll create a directory in our home folder move the binary to our home directory  

```
mkdir ../etnminer
sudo cp bin/xmr-stak-cpu ../etnminer/.
cd ../etnminer
```

- Next we will determine what kind of CPU you have and the amount of cores.
  - you can see this by running the "lscpu" command

```
weffke@Test:~$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                 4
On-line CPU(s) list:   0-3
Thread(s) per core:    2
Core(s) per socket:    2
Socket(s):              1
NUMA node(s):          1
Vendor ID:              GenuineIntel
CPU family:             6
Model:                 79
Model name:             Intel(R) Xeon(R) CPU E5-2673 v4 @ 2.30GHz
Stepping:               1
CPU MHz:                2294.686
BogoMIPS:               4589.37
Virtualization:         VT-x
Hypervisor vendor:      Microsoft
Virtualization type:    full
L1d cache:              32K
L1i cache:              32K
L2 cache:               256K
L3 cache:               51200K
NUMA node0 CPU(s):     0-3
```

Now that you know how many cores/threads you have you can choose how many you will use.

- Taking all cores will probably make it unusable for other tasks and push your CPU temperatures very high if not is not monitored closely

So I suggest to use a maximum of 75%

I will only make configs for up to 8 cores/threads

<b>Cores/threads you want to use</b>	<b>Download command for config file</b>
1 core/thread	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/1core/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/1core/config.txt</a></code>
2 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/2cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/2cores/config.txt</a></code>
3 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/3cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/3cores/config.txt</a></code>
4 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/4cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/4cores/config.txt</a></code>
5 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/5cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/5cores/config.txt</a></code>
6 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/6cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/6cores/config.txt</a></code>
7 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/7cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/7cores/config.txt</a></code>
8 cores/threads	<code>wget <a href="https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/8cores/config.txt">https://github.com/weffkeming/All/blob/master/Miners/Electroneum/Ubuntu/8cores/config.txt</a></code>

- Once it is done you can give all permissions and go into it and go change your address  
`chmod 777 config.txt`  
`vi config.txt`
- If you aren't sure on how to use vi have to do these steps:
  - Move around with your arrows
  - Press i to go into editing more (insert)
  - to go out and save you need to press escape then :wq (you'll see this appear on the bottom) to confirm enter

for additional info take a look at this beginners guide:

[Vim beginners guide](#)

- With the arrows go down until you see "pool\_address"  
 The pool information can usually be found under the getting started Tab

```
* pool_address - Pool address should be in the form "pool.supportxmr.com:3333". Only stratum pools are supported.
* wallet_address - Your wallet, or pool login.
* pool_password - Can be empty in most cases or "x".
*
* We feature pools up to 1MH/s. For a more complete list see M5M400's pool list at www.moneropools.com
*/
"pool_address" : "pool.etn.spacepools.org:3333",
"wallet_address" : "etnkNd1nDwGkdGk5bm2p85Zgiw8WwFY4uTDLRST5sG92JhQtm4D4EPhv6XheYnrX4UWEAZcKmv5C4QQCnm1N1t51cLMUuJz6",
"pool_password" : "x",

/*
* Network timeouts.
* Because of the way this client is written it doesn't need to constantly talk (keep-alive) to the server to make
* sure it is there. We detect a buggy / overloaded server by the call timeout. The default values will be ok for
* nearly all cases. If they aren't the pool has most likely overload issues. Low call timeout values are preferable -
```

The screenshot shows the 'etn.spacepools.org' website with the 'Getting Started' tab selected. In the 'Connection Details' section, the 'Mining Pool Address' is set to 'pool.etn.spacepools.org'. Below this, there are examples for static difficulty and rig ID support, and a complete login address example. In the 'Mining Ports' section, the default ports are listed as 1111/3333/5555/7777/1337, with a note that 9999 is used for NiceHash. The starting difficulty is 100.000 on every port except for port 9999 (1.000.000). The Vardiff config shows a minimum difficulty of 5000, maximum difficulty of 1000000, target time of 30 seconds, retarget time of 30 seconds, and a maximum jump of 50%.

- Next up is to add your Wallet address which is located right underneath

```
* pool_address - Pool address should be in the form "pool.supportxmr.com:3333". Only stratum pools are supported.
* wallet_address - Your wallet, or pool login.
* pool_password - Can be empty in most cases or "x".
*
* We feature pools up to 1MH/s. For a more complete list see M5M400's pool list at www.moneropools.com
*/
"pool_address" : "pool.etn.spacepools.org:3333",
"wallet_address" : "etnkNd1nDwGdkdGk5bm2pBS3giw8WwWfY4uTDLRST5sG92JhQtm4D4EPHv6XheYnrX4UWEAZcKmv5C4QQCnm1N1t51cLMUuJz6",
"pool_password" : "x",

/*
* Network timeouts.
* Because of the way this client is written it doesn't need to constantly talk (keep-alive) to the server to make
* sure it is there. We detect a buggy / overloaded server by the call timeout. The default values will be ok for
* nearly all cases. If they aren't the pool has most likely overload issues. Low call timeout values are preferable -
```

Your Public Wallet Address



Your Address:

etnkNd1nDwGdkdGk5bm2pBS3giw8WwWfY4uTDLRST5sG92JhQtm4D4EPHv6XheYnrX4UWEAZcKmv5C4QQCnm1N1t51cLMUuJz6

Click to copy

Give this wallet address to the person sending you Electroneum. They can send you Electroneum via the app or from Windows, Mac or Linux Wallets.

It's perfectly safe to give the address. You can even publish it on your website or social media.

- Now we can start the program
  - First we need to know in which directory you are. this can be done with the pwd command.

```
weffke@AzureFree:~/etnminer$ pwd
/home/weffke/etnminer
```

- Knowing this you can start the program using this directory with xmr-stak-cpu and config.txt
  - Now run following command to start it. (make sure to use the correct path here) Don't forget to put the ampersand as this will make the program run in the background
- You once you've done this you'll see this kind of output and you can close the terminal it will continue to run in.

```
weffke@AzureFree:~/etnminer$ sudo /home/weffke/graftcpu/xmr-stak-cpu /home/weffke/graftcpu/config.txt
[2018-03-25 13:00:24] : MEMORY ALLOC FAILED: mmap failed
[2018-03-25 13:00:24] : MEMORY ALLOC FAILED: mmap failed
-----
xmr-stak-cpu 1.3.0-1.5.0 mining software, CPU Version.
Based on CPU mining code by wolf9466 (heavily optimized by fireice_uk).
Brought to you by fireice_uk and psychocrypt under GPLv3.

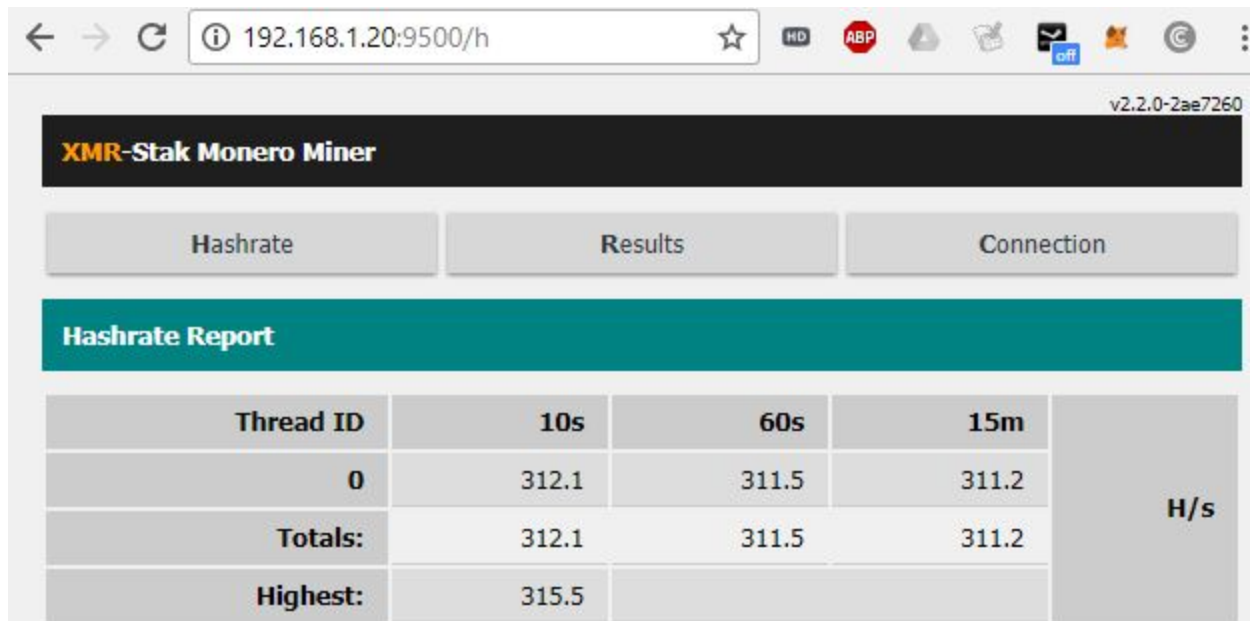
Configurable dev donation level is set to 0.1 %

You can use following keys to display reports:
'h' - hashrate
'r' - results
'c' - connection
-----
[2018-03-25 13:00:24] : Starting double thread, affinity: 0.
[2018-03-25 13:00:24] : Connecting to pool pool.graft.spacepools.org:3333 ...
[2018-03-25 13:00:24] : hwloc: memory pinned
[2018-03-25 13:00:24] : MEMORY ALLOC FAILED: mmap failed
[2018-03-25 13:00:24] : MEMORY ALLOC FAILED: mmap failed
[2018-03-25 13:00:24] : Connected. Logging in...
[2018-03-25 13:00:24] : Difficulty changed. Now: 50000.
[2018-03-25 13:00:24] : New block detected.
[2018-03-25 13:00:46] : Difficulty changed. Now: 35000.
[2018-03-25 13:00:46] : New block detected.
[2018-03-25 13:00:58] : New block detected.
[2018-03-25 13:01:16] : Difficulty changed. Now: 24500.
[2018-03-25 13:01:16] : New block detected.
[2018-03-25 13:01:47] : Difficulty changed. Now: 17150.
[2018-03-25 13:01:47] : New block detected.
```

- By using the "ps -ef|grep xmr" command you can see if the program is running.

```
weffke@AzureFree:~/etnminer$ ps -ef|grep xmr
root      1969      1  0 Mar23 ?        00:00:00 sudo /home/weffke/graftcpu/xmr-stak-cpu /home/weffke/graftcpu/config.txt
root      1987    1969  93 Mar23 ?        1-12:09:28 /home/weffke/graftcpu/xmr-stak-cpu /home/weffke/graftcpu/config.txt
weffke    16191   14607  0 12:54 pts/1    00:00:00 grep --color=auto xmr
```

- In the configuration it also has a web interface you can check your hashrates. Just go to the ip:9500



The screenshot shows a web browser window with the address bar displaying '192.168.1.20:9500/h'. The page title is 'XMR-Stak Monero Miner' and the version is 'v2.2.0-2ae7260'. There are three tabs: 'Hashrate', 'Results', and 'Connection'. The 'Hashrate' tab is selected, showing a 'Hashrate Report' table.

Thread ID	10s	60s	15m	H/s
0	312.1	311.5	311.2	
Totals:	312.1	311.5	311.2	
Highest:	315.5			

Now you just have to let the device do its calculations and you will start gaining Electroneum