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Crypto you can mine from a home computer in 2023

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While mining bitcoin on an individual computer is no longer viable, there are other cryptocurrencies that you can still mine at home if you're prepared to put in the effort.

Updated 19th July 2023. If the volatility of investing in cryptocurrencies is too much for you but you still want to benefit from the new economy, setting up a small cryptocurrency mining operation at home may be the right choice for you. Although the quoted returns are high, we warn against 'cloud mining', as every crypto cloud mining offer we've seen is a scam.

What Crypto To Mine?

The easiest cryptocurrency to mine is one that doesn't require you to build a massive crypto mining rig. Although it was initially possible to mine Bitcoin using laptops and desktops, the growing mining difficulty as well as the advent of Application Specific Integrated Circuit (ASICs) hardware created specifically for Bitcoin mining has made it all but impossible to profitably mine Bitcoin at home using the processing power of a PC or laptop computer.

However, crypto mining from home is *still* an option for other popular cryptocurrencies in 2023. In this article, we will introduce many popular options — with some how-to instructions to help get you started.

Dogecoin (DOGE)

|**Market Cap: 9.7B** | | **Average Daily Volume: 200M-350M+** |

Though the digital currency started out based on a meme, Dogecoin (DOGE) has been popularized by Elon Musk and has grown to be an altcoin with a substantial user base. DOGE is designed to add new coins each year as opposed to Bitcoin's finite supply. This is an added incentive for anyone mining it.

How To Mine Dogecoin

To mine DOGE, first ensure you have a wallet to store your earnings. You can download the Dogecoin core wallet or look on the website for other suitable online wallets.

When mining using your CPU, the software that works best is CPU miner. Mining in this manner is possible, albeit at a slow rate. To increase the mining speed, you can use graphic cards. AMD and Nvidia cards are your best bet (see below for details on building mining rigs). If you decide on GPU mining, then the software you should use is either the cgminer or cudaminer.

Full instructions for mining Doge can be found here. While mining as an individual is doable, it is advisable to sign up to a mining pool as you are able to take advantage of larger processing power and speeds and thus generate higher mining returns. An example of a mining pool that supports Dogecoin is MultiPool. Once mined, exchanges that trade Dogecoin include Binance and OKX. If you're not an experienced trader, check our article on the best crypto trading bots, as many come with copy trading tools that mean you'll be making the same trades as the experts do.

Check current Dogecoin Price

Ethereum Classic

|**Market Cap: 2.5B** | | **Average Daily Volume: 70M-150M** |

The main goal of the Ethereum Classic project was to ensure survival of the original Ethereum blockchain, to provide an alternative for people who strongly disagreed with the DAO bailout of Ethereum and the direction taken by the Ethereum Foundation. Mining standard Ethereum is no longer possible as the Ethereum blockchain moved to proof of stake in October 2022. This was good news for Ethereum Classic as the resources formally used for mining ETH can easily be applied to mining ETC.

How To Mine Ethereum Classic

While ETC can be mined with ASIC machines, it can also still be mined on desktop machines. A full list of mining resources for Ethereum Classic can be found here.

Once mined, exchanges that trade Ethereum Classic include HitBTC, Binance and Huobi Global.

Check current Ethereum Classic price

Monero (XMR)

|**Market Cap: 3B** | | **Average Daily Volume: 40M-100M** |

Monero (XMR) is a popular anonymous digital currency. Furthermore, this altcoin's network was designed specifically to resist the development of Monero specific ASIC's. Therefore, it is well-suited for mining with a home computer.

How To Mine Monero

To begin, you must first download a wallet to store your coins. It is recommended to use the official Monero GUI client. Following this, the next step is to download mining software that supports Monero such as MultiMiner. MultiMiner is among the easiest to use but there are also other mining options available online. Once mined, exchanges that trade Monero include Binance and Bitfinex.

Check current Monero Price

ZCash (ZEC)

|**Market Cap: 540M** | | **Average Daily Volume: 20M-40M** |

Launched in 2016, Zcash (ZEC) is a leading privacy-centric digital currency. For mining crypto at home, Zcash's most important feature is that it employs the Equihash algorithm which is designed to be ASIC resistant. As a result, the home miner with a GPU can participate.

How To Mine ZCash

Before you can start mining Zcash, you will need to download the software that will control your hardware. Download the Zcash blockchain and set up your wallet. This will involve some waiting as the blockchain will need to download in its entirety on your node, and sync as well. Additionally, you will need to download the drivers for your graphics cards. Full instructions for mining Zcash can be found here. Once mined, exchanges that trade Zcash include Binance, Huobi Global, and Bitfinex.

Check current Zcash Price

Ravencoin (RVN)

|**Market Cap: 250M** | | **Average Daily Volume: 5M-8M** |

Ravencoin (RVN) is a blockchain network optimized to move assets from one holder to another, such as tokens. Ravencoin is a fork of the Bitcoin code. It cites its main improvements over Bitcoin as a one-minute block reward time, a change in the number of coins released, but not the weighted distribution schedule, and the inclusion of capabilities for asset development and messaging. Ravencoin is open source.

How To Mine Ravencoin

The Ravencoin KAWPOW algorithm is designed to be ASIC resistant and can be mined using a consumer grade GPU. More details on mining Ravencoin are available here.

Once mined, exchanges that trade Ravencoin include Binance, Huobi Global, and OKX.

Check current Ravencoin Price

Bitcoin Gold (BTG)

|**Market Cap: 238M** | | **Average Daily Volume: 1-3M** |

Bitcoin Gold (BTG) was launched in 2017 as a fork of the original Bitcoin blockchain. Although it initially had a progressive roadmap aimed at extending the scalability and the development potential of Bitcoin (BTC), the project has fallen silent in recent years and has not updated its website roadmap or its Twitter feed since 2021. Nonetheless, BTG still has a respectable market cap and daily trading volumes, so anyone mining BTG will be easily able to find buyers.

How To Mine Bitcoin Gold

Bitcoin Gold uses Equihash-BTG, also known as Equihash(144,5) or Zhash and its price movements typically correlate quite closely with those of the original Bitcoin. Check here for more info on mining Bitcoin Gold. Once mined, exchanges that trade Bitcoin Gold include Binance, Bitfinex HitBTC and Huobi Global.

Check current Bitcoin Gold Price

Horizen (ZEN)

|**Market Cap: 112M** | | **Average Daily Volume: 4M-6M** |

Launched in 2017, Horizen and its native cryptocurrency ZEN is a proof-of-work, equihash-based cryptocurrency and is mineable with a GPU. The project aims to ensure data integrity and privacy freedom by enabling real-world use cases within a secure interoperable blockchain ecosystem. In terms of price, like most alt-coins, ZEN tends to follow the overall price trend of Bitcoin and Ethereum. Its highest price was US$148 achieved in December 2021. It has a respectible market cap and liquid daily trading volume.

How To Mine Zen Coin

More information about mining ZEN can be found here. Once mined, exchanges that trade ZEN include Binance, HitBTC and Huobi Global.

Check current ZEN price

Bytecoin (BCN)

|**Market Cap: 6.8M** | | **Average Daily Volume: $5k-10k** |

Anonymous cryptocurrency Bytecoin (BCN) is another altcoin that is easy to mine on your home computer. Solo mining has been designed to be an easy process for Bytecoin users.

How To Mine Bytecoin

To mine BCN you need to download the Bytecoin wallet and run the program on your computer. After the program is done syncing with Bytecoin's blockchain, create a wallet for yourself. Then simply input the begin mining command and set your wallet address as the recipient.

Solo mining works on Bytecoin's network, but the process is slow and may not get you much revenue. To enhance earnings, you can join a mining pool that supports CPU mining. A good example is bytecoin-pool.org. You will also need to download compatible mining software such as xmrig.

It is also possible to mine Bytecoin using GPUs. To mine in this manner, you will need to download software that is compatible with GPU mining. While the set-up process here is more complex than with CPU mining, it does lead to a faster mining process. Once mined, exchanges that trade Bytecoin include HitBTC and Poloniex.

Check current Bytecoin price

Beam (BEAM)

|**Market Cap: 9.7M** | | **Average Daily Volume: 100K-150K** |

A MimbleWimble implementation, Beam (BEAM) is well-suited for home mining. It employs the Hashii algorithm that supports GPU mining.

How To Mine Beam

To get started, download the official Desktop Wallet, depending on the operating system on your computer, your antivirus may flag up the mining software as a harmful program. Exclude it from that designation otherwise you will run into trouble in the mining process.

Once the blockchain has downloaded and synced you are ready to start mining. You must first configure your settings. Turn on the “Run Local Node” feature and set the number of mining threads to a number greater than zero.

It is important to note that Beam’s infrastructure involves the use of expiring addresses in order to maximize privacy. However, you will require a permanent address to successfully recover your mining revenues or your tokens will be lost. To create a permanent address, navigate to the receive tab on the main dashboard of the software. You can create a new address and set it to never expire to use it for the mining set up. Once mined, exchanges that trade Beam include Binance and Bitforex.

Check current Beam price

Vertcoin (VTC)

|**Market Cap: 6.6M** | | **Average Daily Volume: $30K-40K+** |

Launched in 2014, Vertcoin (VTC) is another popular choice among small miners. The digital currency is designed to stay true to the spirit of decentralization and financial sovereignty envisioned by Satoshi Nakamoto when he created Bitcoin. The project’s developers created the blockchain as a response to the growing influence ASICs were having on the Bitcoin blockchain and the mining ecosystem in general.

How to Mine Vertcoin

The algorithm employed with Vertcoin’s POW consensus mechanism is Lyra2RE and is designed to be ASIC resistant while simultaneously supporting GPU and CPU mining.

VTC is popular because it has a very simple mining process. It is a matter of one click as the project developers have created the architecture to support easy mining. To start mining, download the software here, and join a mining pool to maximize mining revenues.

Once mined, exchanges that trade Vertcoin include Bittrex and UPBit.

Check current Vertcoin price

Grin (GRIN)

|**Market Cap: 3.5M** | | **Average Daily Volume: $400K-500K** |

Grin (GRIN) was launched in January 2019. The project is focused on privacy and scalability. Like Beam, the Grin blockchain employs the MimbleWimble algorithm to support transactional privacy.

For the home miner, though, it is the blockchain's ASIC-resistant POW algorithm that is most relevant. Moreover, the project developers have gone a step further to hard code a hard fork every six months to minimize the effects of any ASICS that may be developed specifically for its network.

How To Mine Grin

To get started with "GRINning", download the blockchain from the official website to set up a node. Once you have successfully synced the blockchain, you must connect the node to your wallet. Creating your wallet is a simple matter of running a file in the directory. Once the wallet is live, you must then configure your graphics cards to work with the wallet. Finally, remember to set the software to the Cuckaroo POW, which is the version of the Grin network that supports GPU mining.

Grin supports both CPU and GPU mining. However, if you decide to go the GPU way, purchase Nvidia cards because these are considered more effective. Moreover, you must have a minimum of 5.5 GB space to begin mining the coin.

Once mined, exchanges that trade Grin include Bittrex and HitBTC.

Check current GRIN price

AEON (AEON

|**Market Cap: $1.3M** | | **Average Daily Volume: $50-$220+** |

AEON was originally forked from Monero and based on the CryptoNote protocol. It uses the CryptoNight-Lite algorithm and ring signatures to make sure that transactions are untraceable.

How To Mine AEON

Although AEON Is modelled after Monero, the project has chosen forgo ASIC resistance. That said, AEON can still be mined with Windows CPUs, and AMB and Nvidia GPUs. More info on mining AEON can be found here.

Once mined, Exchanges that trade AEON include Bittrex and HitBTC.

Check current AEON price

How much money can you make GPU crypto mining at home?

Mining crypto at home with a CPU is possible with coins like Monero, Zcash and Byte, but it will be a slow process and the cost of electricity may be more than the value of the coins you can mine. For those who want to get more serious, crypto GPU mining is a realistic path. GPUs such as the NVIDIA GeForce RTX 3090 and GeForce RTX 3080 are popular options.

The price of GPUs range from as low as $600 up to $2000 and more. The reason for the price differential is all about performance. For GPUs this relates to their maximum hashrate. In simple terms, hashrate is the amount of power/speed/calculation that the GPU unit can apply to mining a cryptocurrency. The hashrate is expressed in 'million hashes per second'. So 1MH/s is one million hashes per second. Lower cost GPUs typically have lower hashrates. CPUs on desktops and laptops have lower hashrates still, and are measured in thousand hashes per second as opposed to millions - so TH/S.

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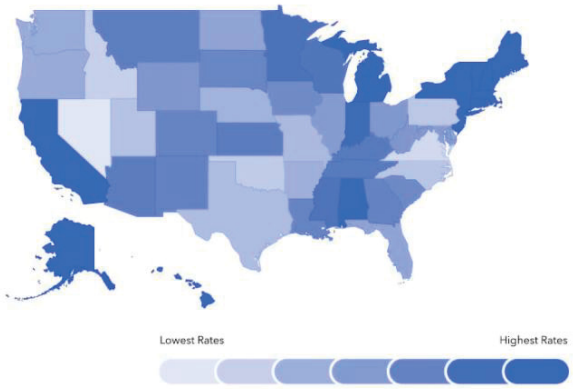
The hashrate and revenue calculation

Hashrates.com is an excellent resource for calculating potential earnings. It displays hashrates for both CPUs and GPUs and an estimate on how much one could make per month applying that hashrate to mining cryptocurrency.

For example, Hashrates.com says a GeForce RTX 3080 GPU can operate at 48MH/s and would earn $217 a month mining Ethereum. In comparison, an Intel i9-10900 can operate at 4KH/s and would produce around $9 worth of Monero over the same period.

Two other factors influencing profitability are:

- The market price of the coin you are mining. Cryptocurrency prices are highly volatile - so mining a crypto that is trending up will make you more money than one that is flat or trending down.
- The cost of electricity. A basic rule of thumb for a GPU is the higher the hashrate it can produce, the more electricity it will use. The price of electricity worldwide is measured in kilowatt-hours.



Electricity prices vary widely in the US. Source - EnergyBot

According to EnergyBot, the average price per kilowatt-hour in the U.S is currently 16.11 cents - but the price varies widely between states. The least expensive state is currently Idaho at 7.99 cents per kWh, and Hawaii is the most expensive at 43.18 cents. Worldwide, the lowest price electricity can be found in Burma, with many Arab states also offering very low rates.

How to scale up GPU mining - case study

The following case study was written by a professional GPU miner. In it they detail their real world experience in GPU mining on a more commercial scale.

The technology set

We have 13 desktops that are low cost Intel systems running Windows 10. The key here is finding motherboards that support 8 GPUs or more. Most run Z390 chipsets which are 8th/9th Gen Intel CPUs as the motherboards are readily available on Amazon.

Speed is irrelevant as some systems run Celeron and some Intel i9 but mining will be 100% GPU dependent so no difference in speed. This is the area where you can cut corners to save on costs. Windows is not stable with more than 8 GPUs running. We utilize Windows in order to remote connect to each rig on our phones with Google Chrome. We do not recommend running anything larger because of stability and also because you would need Linux. All rigs run in an open frame with 120mm cooling fans to dissipate heat. The GPUs will thermal throttle down if not cooled or housed in a case.

The profitability equation

Ethereum has proven to be the most profitable crypto to mine per wattage. For a low cost rig, 8 AMD RX580's generate $20 per day before electricity. I recommended 8 - AMD 5700 XT's because they use the same amount of electricity as the RX580s while generating 30% more profit

Electricity is your number 1 hurdle for profitability during a bear market. During a bull market it's not really a factor. For example, the rigs above utilize $4 per day in electricity. During a bear market with all 13 machines operating, we were able to generate around $500 a month. During the current bull market the same 13 machines have done up to $17,000 per month - so the power price is not an issue. The problem with electricity is scaling and heat. The rigs use 1000 watts so they are essentially 1000 watt space heaters. The more rigs you utilize the more you will then need to cool your residence depending on your space and goals.

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Crypto mining by at-home miners is challenging as large-scale operations dominant the mining industry. However, by choosing the most profitable coins and running the latest (and most efficient) mining hardware, it is still possible to generate crypto mining profits in 2023.

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