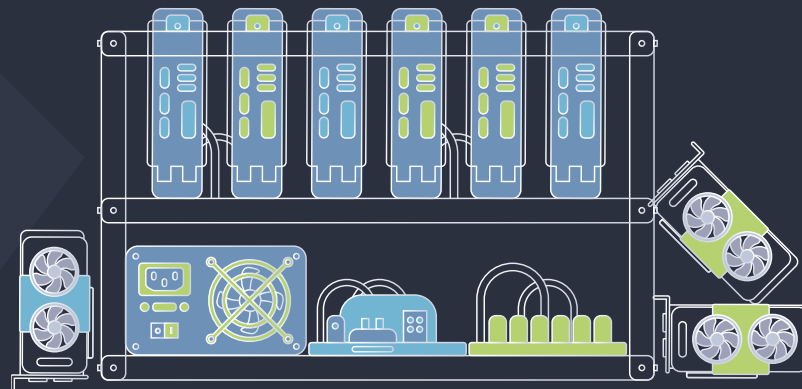

THE ULTIMATE GUIDE TO GPU/CRYPTO MINING



CONTENTS

Introduction	Page 1	Mining pools - solo mining vs pool mining	Page 13
Buy your own rig or rent it out?	Page 2		
How to build a rig	Page 4	How to mine Bitcoin	Page 15
GPU – which one is best for what	Page 7	How to mine ETH	Page 16
ASIC vs GUI vs Cloud vs CLI	Page 9	How to mine Monero	Page 17
Mining difficulty and hashrates	Page 11	Top tips for miners	Page 19
		Cudo Miner	Page 20



**Mine Better, Mine
Stronger, Mine Faster!**

INTRO

The chances are, you've not got here by accident.

You have an interest in one of **a) cryptocurrency, b) mining it, c) making money** and – quite likely – **d) all of the above.**

At its most basic, cryptocurrency mining is the harnessing of computer processing power, to verify and add entries to the blockchain that underpins a currency. Naturally enough, the computations involved are long, complex and require a huge amount of power to crack an individual block. There are lots of miners all trying to crack the same computations, but the one who does it is rewarded by mining a new coin. It's very hit and miss, and thus the more power at your fingertips, the better your odds.

The rewards are increasingly worth it, too, and that's why more and more people are either investing in crypto-mining hardware, leasing the power of others, or using their spare processing power to mine currency.

This guide, then, is aimed at those looking to do just that. We'll be taking you through the options before you, and helping you choose the right hardware (that's if you buy hardware yourself at all), work out if you're getting good value, and offer some expert tips to help you on your way.



BUY YOUR OWN RIG OR RENT IT OUT?

You're not going to be mining cryptocurrency without access to some pretty powerful hardware, capable of undertaking the necessary computations. But you have a number of options available. Let's explain buying first.

It's worth noting upfront, then: you don't need to build or buy another computer system if you want to mine cryptocurrency. In fact, many people don't. You can, in theory, use what you already have. There's software you can install on your existing machine(s) that can get you up and running with mining very quickly, and cheaply. Software that'll scale with the processing power at your fingertips too, that you can install on any new rig you put together as well.

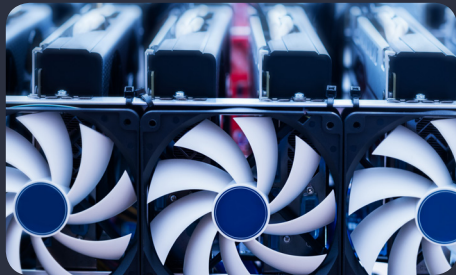
If you do want to own the kit, and if you're really going for it, it can get very expensive. Most people, though, don't take this approach for just that reason. But just to give some flavour to it, at the high end, to get a single top of the range dedicated Antminer cryptocurrency ASIC mining machine can set you back north of \$1000 (assuming you can find one in stock). The highest-end investors will purchase lots of these, and then will also need to factor in the electricity costs of running them around the clock.

Countering that, if you're dabbling, the actual start-up costs are modest: **you're ultimately in control of the software you use, and the machine you use it on!**

The huge advantage is that what you buy is all yours, and so you can configure your rig how you wish. Crucially, every coin you mine is yours too, but the trick there is to ensure the running costs of your setup - in particular the electricity bill - don't outweigh the income. You need to keep your eye on the price of coins too, as it's a calculation that's continually in some form of flux. Again, software can do the heavy lifting work for you here too.

As a tangible alternative to buying, you can rent someone else's technology. This mitigates your own exposure, and can give you access to mining set-ups in far more economical areas of the world. After all, local electricity prices tend to be on the expensive side, and many enterprising companies have set up specific operations elsewhere on the planet where prices are lower.

‘...a small piece of a powerful crypto farm is likely to be **FAR MORE EFFECTIVE**’



You can then, for a fee - albeit one far less than you'll pay buying the kit yourself - rent some of their processing power. The other notable upside of this is that you require no technical knowledge to get things up and running. The obvious downside is that you have to pay a percentage on the crypto you mine, which varies depending on the cloud provider you select.

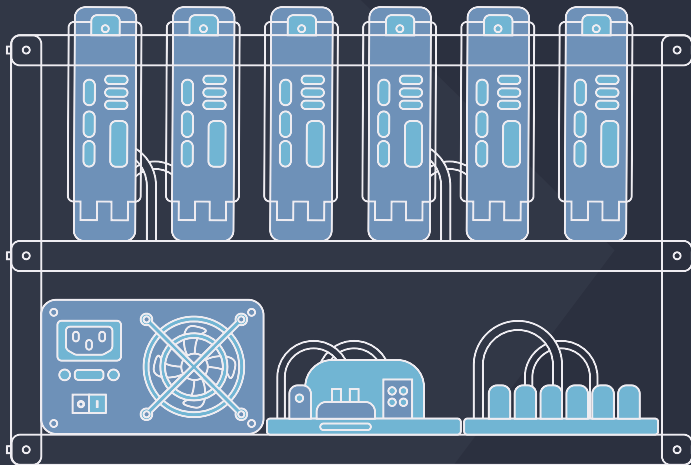
It's worth noting too that even if you rent your mining processing power, it doesn't come with a guarantee that you'll successfully mine crypto. That said, a small piece of a powerful crypto farm is likely to be far more effective than one or two systems in the corner of the office. If you're mining the most popular coins, too - Bitcoin in particular - note that it's hugely, hugely competitive, given that it's the most valuable cryptocurrency in the market (certainly both historically, and at the time of writing, and there's little sign of that changing). You're going to need all the power you can get in that instance.

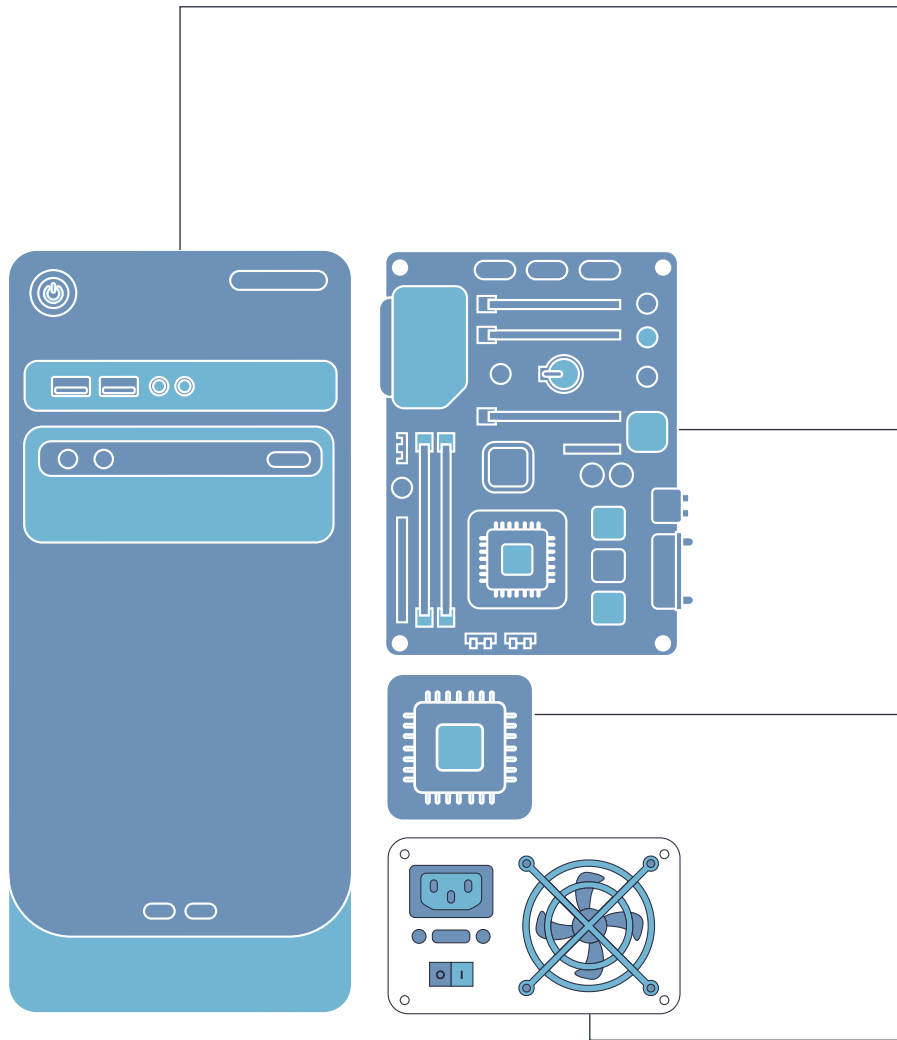
Many, then, experiment with running software on their existing rigs first, and renting, before taking the deeper financial plunge. Especially if they're just starting out.

HOW TO BUILD A RIG

If you're still keen to own your own equipment, building a rig from scratch is a pertinent option that can save you a little bit of money.

If you're looking to build your own dedicated cryptocurrency mining machine from scratch, then the principal is the same as a standard computer, even if the end result is slightly different: you buy a bunch of components, you plug them together (that's heavily simplified, of course). Note that building your own machine can save you a lot of money over buying a dedicated ASIC mining product. What's more, you can then - once you're done with mining - more easily redeploy the component parts into other computers (something far trickier with an ASIC).





CASING

In terms of choosing components, this will provide one of the biggest initial differences. Rather than a closed box (as you'd have with a traditional PC), you'll want to be housing your machine in a rig frame. Because the component parts of a mining rig will be worked extremely hard and get very hot, a frame allows far better air flow. Your case will be open air, and the components will look like they're out in the open. Be even more careful than usual with coffee cups and drinks.

MOTHERBOARD

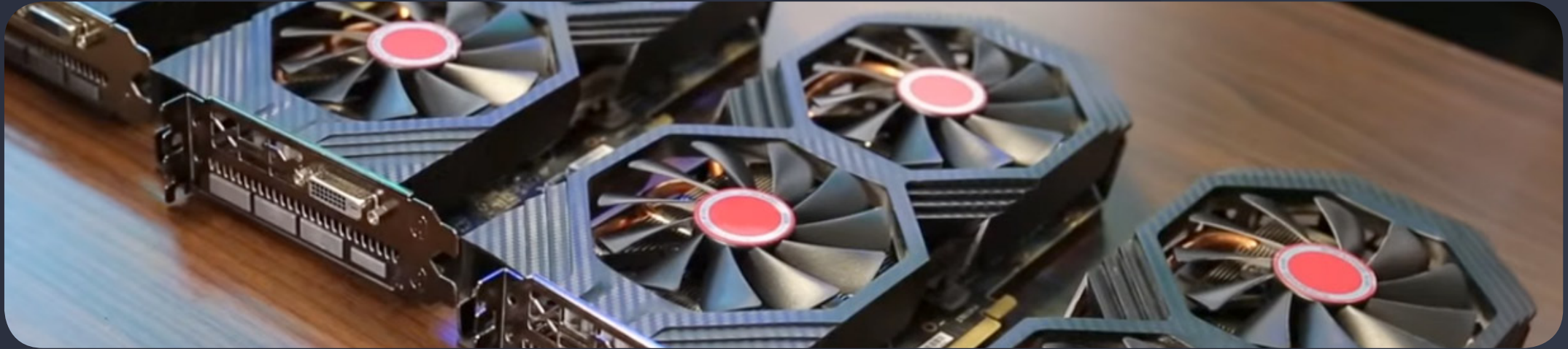
This is the heart of the machine. You need to pick one that can handle multiple GPUs and try not to skimp here. For a powerful mining rig, it will need to support four GPUs (through PCIe connections) - ideally more.

CPU

Assuming you're going to be using GPU power for your mining, the central processing unit doesn't need to be top of the range. Unlike a traditional PC, you don't need to worry about having too much in the way of hard disk space. RAM, likewise, can be quite modest. You need around 8GB to be on the safe side, but not much more than that.

POWER SUPPLY

You do need to spend a decent amount here. Look for a supply with 80 Plus certification, as this means it'll be more efficient and save you a little extra in the long run. You need to be aiming for around 650W-750W, but check before buying that'll be sufficient: if you're looking to run, say, eight GPUs, you need to be certain your PSU can handle it.



‘Cudo Miner
make things
**INCREDIBLY
SIMPLE**’

The actual putting together of the rig is pretty straightforward. There are numerous YouTube videos that will take you through the process in detail. [This one is sponsored, but covers the basics very well.](#) Just give yourself time, space and anti-static protection!

In terms of software, tools such as Cudo Miner make things incredibly simple and do the configuration work for you. They’re also flexible in allowing you to alter which coins you want to mine. There is a choice to be made between GUI and CLI-driven software, which we’re coming to shortly.

GPU - WHICH ONE IS BEST FOR WHAT

Inevitably, technology continues to evolve, and that makes judging when to jump in and invest in a GPU - or multiple GPUs - something of a challenge. On a purely technical level, you need to consider the balance between the amount of power a GPU will devour, against the processing heft it gives you. It's a simple rule of thumb that you want to minimise the amount of electricity you need (and thus your electricity bill) whilst maximising the processing capabilities. That way, you get the best possible margin.

The fast-moving nature of GPU product releases means it's not worth looking for whatever's at the top of the market at any given time. You pay a disproportionate premium for buying the very best, whereas the saving you make will greatly outweigh the small processing hit you'll take.

That said, you're still going to need some heft. Most people favour GPU over CPU for providing the grunt to their rigs (and rightly so), and thus you're ideally going to need four or five cards, with at least 3GB of RAM apiece, preferably 6GB. Still, go a few notches down from the top end options - which evolve regularly.

| '...consider **THE BALANCE...**'



In early 2019, one of the most popular choices was a card based around the Nvidia GeForce GTX 1070 GPU. This offered a fine sweet spot between hash rates and energy consumption. Not far behind it was the AMD Radeon RX 580 GPU. Different individual card manufacturers offer slightly different variants based around the core GPU technology, so it's worth shopping around.

What you're ultimately looking for is a balance between MegaHashes per second (the speed at which the processor can throw potential solutions at the cryptographic problem posed by the specific algorithm) and how much power it consumes (expressed in Watts). You'll find all of those details freely available online, and it's worth just searching around on a per-model basis for the best deals.

As a rule of thumb, beginners - as of 2019 - generally have started with cards in the AMD Radeon R9 line, which are good value and conservative in their power demands.

USEFUL WEB RESOURCES

What To Mine: <https://whattomine.com/>

A hugely comprehensive crypto coins profit calculator.

CryptoCompare: <https://www.cryptocompare.com/>

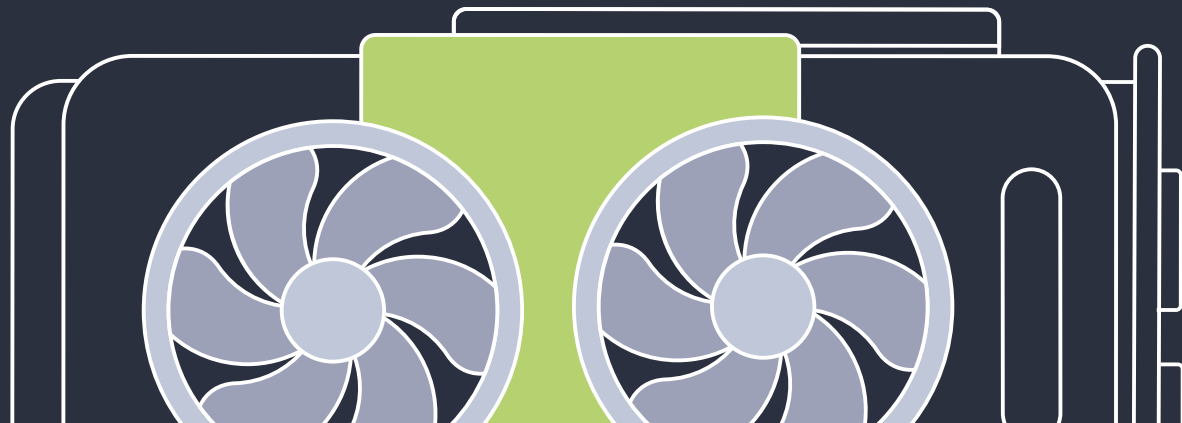
Up-to-the-second cryptocurrency price and trading information

Bitcoin Mining: <https://www.bitcoinmining.com/>

A useful site for getting your head around the inner-workings of Bitcoin mining specifically.

CoinWarz: <https://www.coinwarz.com/cryptocurrency>

A multi-currency crypto mining profitability calculator.



ASIC VS GUI VS CLOUD VS CLI

Let's go through a few further options ahead of you, starting with how they're defined in terms of cryptocurrency mining.

ASIC stands for application-specific integrated circuit. As its name suggests, it's technology built with specific applications very much in mind. In crypto terms, an ASIC system has been built to mine a particular cryptocurrency. That other processes have been stripped away from the technology, in favour of a very specific tool to do a very specific job.

GUI stands for graphical user interface. When we talk GUI in the cryptocurrency mining space, we're talking about software. As such, there's a range of software available that puts a user-friendly front-end on the process, all designed with making crypto mining as easy as possible to configure and use, irrespective of the user's level of expertise.

CLI stands for command line interface. Thus, software that's operated via a CLI rather than a GUI. This is about stripping away anything unnecessary from the machine that's doing the mining. That instead of loading a software application with a friendly interface to manage the mining, that's all cut out in favour of absolute maximum efficiency. The clear downside is it requires expertise. To operate software via a CLI, you need to be entering specific text machine commands into what's usually a very unwelcoming and stark console. The upside is this is more efficient. The downside is that it's much, much more difficult for new users in particular.

Cloud is something we've already talked about. This is about using cloud computing technology to effectively mine cryptocurrency without having to invest in your own mining technology, or adding your mining power to that of other users to increase your combined heft.

'stick with the
GUI as the
MAJORITY OF
PEOPLE do.'

Let's look at those options, then. ASIC systems are risky. They're hugely effective at what they do (arguably more effective in terms of pure specific grunt than any other option), but given the cost of such specialised equipment, they're inevitably tailored for the most competitive coins - at the moment, this is Bitcoin. The hardware itself is configured for the mining of said coin, and all it takes is a change in the code of the cryptocurrency itself, and an ASIC rig can be redundant overnight. It's designed for one job, based on existing parameters, and if those parameters change, it's gathering dust. Countering that, changes to a coin's codebase are earmarked well in advance, and oftentimes resisted anyway by the crypto community.

In terms of GUI vs CLI, some software offers both versions. If you're a beginner, and/or not familiar with computer code, command consoles and text interfaces, this is an easy decision. Whilst software that uses the command line can be more efficient (by how precisely you can direct the computer), we're not talking a dramatic difference. Unless you're absolutely confident, stick with the GUI as the majority of people do.

In terms of your cloud option, we've discussed that elsewhere in this guide.

MINING DIFFICULTY AND HASHRATES

As the original cryptocurrency, Bitcoin's creator - the pseudonymous Satoshi Nakamoto - envisaged a system where its value was dictated by the efforts required to preserve the blockchain's integrity. This is what mining is; it is the efforts of computers to ensure that all the information on the blockchain is trustworthy and correct. To do this, those computers solve complex maths puzzles. For this work - and to recompense the money it costs to do so - miners are rewarded with the currency itself.

Put simply, Hashrate is a metric charting the amount of computer processing power being dedicated to solving those puzzles on a specific blockchain at a given time. In Proof of Work systems, like Ethereum and Bitcoin, a single 'Hash' represents a mining rig attempting to guess the 64-digit hexadecimal solution to complex cryptographic puzzle. This answer, when married to the transaction information waiting to be verified, will confirm the block currently being processed as genuine and commit it to the blockchain forever more.

Guessing the solution correctly means the owner of the machine responsible receives the requisite block reward, which is how miners make a profit. For Bitcoin, that means a hefty reward of

12.5BTC is handed to a successful miner approximately every 10 minutes. For Ethereum, the reward is much less - 2ETH - but blocks are confirmed at between 13-20 second intervals. Only the successful miner of any given block gets a reward, everyone else moves on to guessing the next block empty handed.

But back to Hashrate. As a stat, it can be used to represent the computing power of a single mining machine, a multi-rig mining farm, a large mining pool, or the processing power dedicated to an entire cryptocurrency blockchain. The more powerful a mining machine is, the more Hashes per second it can churn out - some of the best machines can work in the range of 20Th/s (Terahashes per second).

Thus, the more hashes a second a miner can throw at the cryptographic problem, the more chance they will mine the block and be rewarded. Competition is high, however, with more and more powerful computers dedicated to mining Bitcoin especially. This means the odds of any one given machine mining a block are astronomical and getting higher. Ultimately, this means the mining game becomes one of balancing the cost of creating vast amounts of computing power against the value of the bitcoins many many exahashes of computing power will earn over time.

You may wonder, if ever more powerful machines are being dedicated to the Proof of Work puzzles of a blockchain, why Bitcoin's and Ethereum's blocks aren't simply mined in ever-quicker time. That's down to a self-correcting algorithm all such blockchains have, known as its Mining Difficulty. Such algorithms essentially control the range within which the possible answer needed to confirm the block could be, making it more or less easy to match and speeding up or slowing down the process.

Bitcoin's algorithm alters the Mining Difficulty every 2,016 blocks (roughly every two weeks) based on the hashpower pointed at the network since the previous adjustment. This helps ensure the average time between blocks stays within parameters.

This also means that distribution of the finite supply of Bitcoin can be controlled in a predictable manner. For example, it is easy to predict that the next halving of mining rewards, which will see the amount of Bitcoin handed as a reward reduced from 12.5BTC per block to 6.25BTC, will happen in mid-May 2020.

These two systems, in unison, hold the power of cryptocurrency. Cryptography is at the heart of the trustless system Proof of Work creates, and the built in algorithms and finite supply keeps mining profitable and competitive enough to underpin and secure the network - at least for the bigger cryptocurrencies like ETH and BTC. It is a self-balancing, elegant system that many see as the revolutionary innovation of crypto - one designed explicitly to up-end our existing system of money that relied on trust in third parties such as banks and governments.

Just one more consideration in this section, though: those electricity costs, and calculating if your investment is giving you a worthwhile reward. Once you know the possible average returns you'll receive for your mining effort - based on your hashrate and the mining difficulty of the blockchain you've decided to point it at - it then becomes possible to calculate your mining efforts' chances of profitability.

Essentially, this comes down to an equation with two other variables: the infrastructure and energy costs you're going to incur to run your setup, and the value of the cryptocurrency at the time you decide to sell it.

The latter, of course, is the X Factor that it's fiendishly difficult to predict.



MINING POOLS - SOLO MINING vs POOL MINING

Raw power is a vital ingredient of successful cryptocurrency mining. The more you have, the more successful your mining operation is likely to be. It's often said, for the sake of an analogy, that crypto mining is like buying a lottery ticket. There's no guarantee you're going to get a winner, but the more tickets you have, the greater the chances of you getting a good reward for your investment.

There's something to that, and it's also very true that the hardest way to mine cryptocurrency is if it's just you, paying for your hardware from scratch. You're going to need to spend a fair amount of money to be able to compete where the most popular coins are concerned. With Bitcoin in particular, it's hard to understate just how intense the competition is, and how high the odds are of mining many coins.

But then let's go back to the lottery analogy.

In the case of this example, the prize is one Bitcoin block. When the solution to that block is found, Bitcoin is generated, and awarded to whoever cracked it. If that's just you, with one machine, attempting to mine that block, the chances that you'll be the one who finally cracks it open are incredibly remote. You're buying one single lottery ticket, when the odds are heavily stacked against you.

However, say you pool your mining with others. Then, all of the resources with that given pool are directed at solving that one particular block. That lots and lots of you are all trying to crack it at the same time, and you're all on the same side. Here, you're now part of a lottery syndicate, just to stretch that analogy a little further. That your odds of success have now greatly increased, but that's countered by the fact that you'll have to split the 'winnings' if you're successful.

That's the essence of solo vs pool mining. That said, it's not quite that clear cut. There are different ways that pool mining rewards its contributors, for instance (to try and mitigate less scrupulous miners tagging along at the last minute to try and claim a share of spoils). There's been contention over the pay-out approaches of some pools, and also, users are generally charged a fee to become part of a pool in the first place.

Furthermore, you're surrendering technical control. If there's a service problem, whilst it won't be up to you to solve it, you are going to be affected by it, and you're powerless to do anything about it (save for outright leaving said pool).

'it's **BARELY WORTH** solo miners considering Bitcoin'

On the whole, many users have recorded higher and more stable returns by being part of a pool, but it's worth doing your research: not all pools are created equal, and you also run the risk of other people disproportionately benefitting from your mining work.

If you're a solo miner, the control is all yours, the reward is all yours, it's just the chances of cracking a block are much, much lower. In particular, as new Bitcoin blocks become harder and harder to mine, it's barely worth solo miners considering Bitcoin anyway, rather they should direct their efforts towards alternatives.

SOLO MINING	POOL MINING
+ You're in complete control	+ More chance of cracking blocks as part of a bigger group
+ You keep everything you make	+ Technical work is done for you
+ You can quickly pivot to mining other coins	+ Rewards are sliced up, but chances are you'll make slightly more
+ Transparent, with no hidden costs	+ Do your research, and lots of mining pools are successful

HOW TO MINE **BITCOIN**

The first step with any cryptocurrency mining process is to get a wallet. There are a host of options for Bitcoin miners, the first of these - especially interesting to those with an ethical imperative to support the Bitcoin ecosystem - being to install the Bitcoin Core and dedicate resources to becoming a full Bitcoin Node.

That's not for the faint hearted or non-technical, but will offer those with a mind to do it with a warm glow that they're helping to secure and support their crypto of choice. If you want a simpler solution, there are a host of online wallet choices, or hardware solutions such as the Nano Ledger USB storage devices, dedicated to the task. It will take a little research to decide which option best suits your needs and security requirements.

If you are working with your own hardware, what will also need to research is which mining software you are going to use. This may depend on your choice of pool, or whether you are working with a GPU or ASIC-based system. Whichever option you've taken, it will pay to double check the maths regarding cost versus reward, and deciding whether the venture should be profitable, before investing. If you have, then there are multiple options, depending on whether you feel comfortable with CLI or require a GUI. Top choice for the former remains CGMiner, but that can be given a GUI when used in conjunction with the software EasyMiner.

There are Mac and Linux specific options out there too - again, a little research is required regarding your specific needs. For a simple, easy to apply solution, you could look at Cudo Miner's dedicated CudoS operating system for crypto mining, or its desktop client for Windows, Mac and Linux, which will walk users through the set up and get them mining multiple cryptos, including Bitcoin, with multiple payment options into their Cudo account's online wallet.



HOW TO MINE ETH

As with Bitcoin, you'll need an Ethereum wallet in which to store your coins. You could download the official Ethereum wallet and MIST Software, turning your machine into a full Ethereum node. While that offers the most in the way of support for the cryptocurrency's ecosystem as a whole, it comes with the downside of having to download the entire Ethereum blockchain, a demand that considerably slows and adds to storage demands.

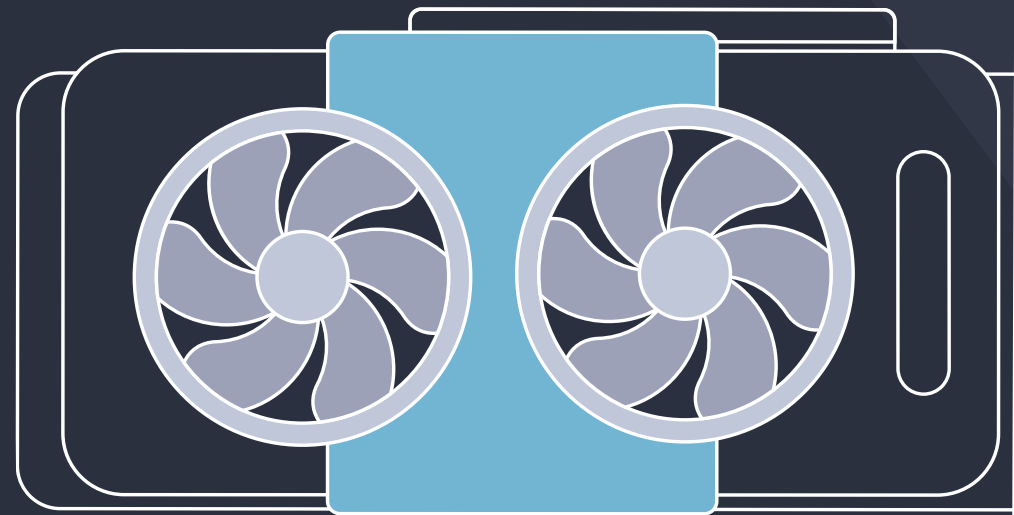
MyEtherWallet (MEW) is a simpler option, which can be accessed via Browser using the company's own Metamask powered browser extension.

Once you have a secure wallet, you will need mining software. [Claymore](#) , [EthMiner](#) and [Phoenix Miner](#) have become the three main options in the last few years. All of them demand some knowledge of command line interface to get running, with none offering a GUI that less tech-savvy computer users will be accustomed too.

Claymore has long been respected as the go-to choice for most people who are happy to deal with a CLI-based system set-up, respected for the control it offers over the hardware tweaking and its multi-coin mining capabilities - though the latter feature has become somewhat superfluous as ASIC mining has grown in

recent times. PhoenixMiner is seen by some as a more efficient and stable option, while EthMiner is a low-resource code that can be used to mine any EthHash-based crypto, such as Ethereum Classic (ETC) and Metaverse (ETP).

All have extensive online communities dedicated to their use, if you want to dive in and get technical. If you don't, Cudo Miner's client can handle all of the set-up in a simple and attractive user interface.



HOW TO MINE MONERO

Monero mining is really accessible these days. Here's our three-step guide to get started:

1. Set up your Monero wallet

Before you start mining on your mining hardware, you should set up a crypto wallet. Some mining software includes a built-in wallet, but the most secure way to hold your cryptocurrencies is in your own wallet (it's best to do your own research to understand why).

2. Set up your mining software

Here's where you need to make a decision: Do you want to use a dedicated command-line miner which is more complicated to set up but is more customizable, or do you want to use a GUI miner which is easy to get going but not quite as configurable?

Go manual on the Command Line

The main options for manual mining are:

- XMR Stak [<https://github.com/fireice-uk/xmr-stak>]
- XMRig [<https://github.com/xmrig/xmrig>]
- SRBMiner [<https://www.srbminer.com/>]

All of them require setting up and some level of technical knowledge, although there are plenty of guides to help you if you get stuck – or a dedicated forum on Reddit (<https://www.reddit.com/r/MoneroMining>).

XMR-Stak is a universal pool miner that uses the Stratum protocol. This miner supports CPUs, AMD and NVIDIA GPUs, and can be used to mine the crypto currencies Monero, Aeon and other CryptoNight coins. It's also one of the most actively maintained Monero miners, and it supports Windows, Mac and Linux. XMR-Stak is well-optimised for its sole purpose of mining CryptoNight.

XMRig is a high performance Monero miner, with support for Windows. It was one of the original popular miners for Monero, but you'll need to choose which version to run depending on whether you want to mine on CPU or GPU.

SRBMiner only works on AMD GPUs but it offers a large amount of customization, and options to mine a variety of CryptoNight coin. It's fast, but slightly more complicated than some of the other options.

All the command line mining options have dedicated communities, and various step-by-step or video guides for installation which are easily found. The option you choose will depend on your confidence level, your hardware setup, and your willingness to get into the nuts and bolts of computing.

One additional complication - to use these miners you'll also need to join a mining pool. This is because mining Monero on your own ("solo mining") probably won't bring much success. The nature of Proof of Work and the current crypto ecosystem means that your chances of gaining any rewards are very low indeed - it's a lottery whether you'll ever be the one to get the block rewards.

But similar to lottery pools, you can join forces in a mining pool and dedicate your resources (and rewards) to a collective. This will give you a regular income relative to the amount of hash power you contribute.

The top Monero mining pools are SupportXMR, Nanopool.org and Minexmr.com. Nanopool offers the added advantage of its own Nanominer software to anyone that wants to use it.

The other option - keep it simple with a GUI miner

For those looking to get going quickly, a great option is Cudo Miner [<https://www.cudominer.com/>]. A user-friendly piece of software that offers a more familiar graphical interface for those looking to dedicate their GPU and CPU resources to mining.

It's a multi-miner, so it mines a number of cryptocurrencies including Monero. A key feature of Cudo Miner is that it offers an auto-switching algorithm, allowing users to hand over mining choices to the software to ensure it mines the most profitable cryptocurrency. A neat feature is that you can still receive payment in Monero even if it's mining a different coin, so this means it's a more profitable way to gain Monero through mining.

A KEY FEATURE
OF CUDO MINER
IS THAT IT OFFERS
AN **AUTO-
SWITCHING
ALGORITHM**

TOP TIPS FOR MINERS

We've covered the basics to get you up and running. Here, then, are a few extra tips to help you get the most from your cryptocurrency mining:

Do your maths. There are umpteen variables when it comes to mining cryptocurrency, from the coins you mine to the investment you put into your operation. Do a bit of homework, though: how much is your likely electricity expenditure? How much can you realistically mine in a month? Which coin or token will give you the best return?

Be willing to change your plan. If you've put all your stock into mining Bitcoin, and it's proving too competitive, then target your efforts elsewhere. If your plan isn't working, just change a few things, and see if that makes a difference for you.

It's more than just Bitcoin. Inevitably, given its price, most people focus their energies on mining Bitcoin. Yet it's also the most competitive coin to mine. Look for a coin where the market is less crowded. You'll make less per coin mined, but your chances of cracking one are a lot, lot better. Keep your eye, for instance, on the CryptoCompare website, and look out for coins that are quietly on the up.

Don't work alone. Get involved with online communities, and exchange ideas, tips, and market insights. You may too find a bunch of people you want to pool your mining resources with, which might just be to the benefit of you all.

On that point, if you can, **spread your financial exposure.** The most expensive way to mine cryptocurrency is as an individual investing in your own equipment. Yet there are lots of options out there to help mitigate the risk. Pool mining, for instance, or cloud services, all reduce your upfront costs. Then, when you're more confident and feel you've found your feet, look at investing in hardware yourself. Even though, it may not be the most economic option.

Don't panic. The crypto market is a volatile one, in large part down to its infancy, and susceptibility to knee-jerk reactions from governments around the world. That, in turn, means prices can lurch around a lot. There may be periods of time where it's simply uneconomical to mine crypto, for instance, if prices fall dramatically. Watch the market, and be willing to jump in and out if needs be.

'If your plan isn't working, just **CHANGE A FEW THINGS**'

CUDO MINER

Finally, a very viable option is to pick a platform that rolls mining and pooling into one package. For example Nanpool.org also offers its own Nanominer to anyone that wants to use it - though it can also be configured to work with Claymore and other software.

For those looking for a really easy time, though, we would suggest looking at Cudo Miner. A user-friendly piece of software that offers a far more familiar graphical interface for those looking to dedicate their GPU and CPU resources to mining.

Key features and benefits

- It's really **easy to set-up**, and will allow you to get up and running with mining in a matter of minutes
- It covers a **variety of coins**, and you can switch between which you mine with a simple click or two
- It does the hard work for you: the software has an **auto-switching algorithm**, that means you can let it constantly monitor which is the most profitable coin option for you, and switch your computer's resources to that.
- It allows you to **take your payout in any supported coin** supported by the software. Whatever you choose to mine, you can still get payment in the coin of your choice.
- It runs on **Windows, MacOS and Linux**, and there's also a dedicated operating system version if all you want to do with your computer is mine coins.
- Controls allow you to easily **maximise your hardware**, and you get **detailed data about your system's performance** should you want it.
- A brilliant launch point for those looking to get started with crypto mining, that allows you to **take control of as much or as little of the technical work as you want**.
- Very easy to learn, and a very **friendly user interface**.
- There's **no upfront cost**, so you can try the software with no risk at all. Then, if you like it, you simply pay a negligible percentage on coins mined.
- If you don't have a dedicated mining rig, chances are you'll want to ensure mining doesn't interfere with your computer's performance while you're using it. Cudo Miner sits dormant in the background on your computer and will intelligently start **mining when the system is idle**.



Visit www.cudominer.com to sign up and download

 www.facebook.com/CudoMiner/

 www.twitter.com/cudominer

 www.t.me/joinchat/GZHjsE6YnVzplZDi4RJCg

