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# The Rise Of Mining Hardware

Hello readers,

A speculative person who wishes to get into crypto currencies should consider mining bitcoin, true or false? Yikes what a horrible question... In recent years the scale of mining has become so big that blocks are made additionally complex to compensate. While that doesn't mean you shouldn't try, it does mean that even our article on using asic chips is in no way meant to suggest you should select such a poor method for mining.

## The ever increasing price of mining

At the time of this article a rough estimate of how much can be made using either an [S9](#) miner or an [S4](#) are roughly .5 vs .29 per month according to some profit calculators. The cost of the electric coupled with the price of the miner itself as well as any fees can cut into that, but essentially that gives a rough estimate of 1300-2000 a month potentially before costs are taken out. So yes you could actually generate a reasonable income with one or more of these devices running in your basement somewhere. How long they will be viable may be another story. The miners I've listed are arguably the most popular and while they last they are specifically optimal for anyone who has more than a tinkerer's interest in trying to mine bitcoin. There are plenty of other viable miners, many with advantages and disadvantages over one another and while some people can afford to set up rows and rows of them and cash in, most of us cannot.

## Time vs viability

There is no specific measure of time vs viability of any of these devices as they could potentially still be in use on large scales 5 years from now depending on the infrastructure, but let's hazard a guess that they'll most likely be obsolete by 2019-2020. What will happen is likely that the next generation miners will have proliferated from commercial grades to non commercial grades and used equipment will be affordable as replacements right? Maybe - It depends on what happens with quantum computing, hashrate decryption algorithms, and gpu development between now and then. The landscape of mining has many gpu miners now which may be better suited to take advantage of their technology advances than their hardware driven counterparts like the S9. Current GPU's cannot compete, but in a few years they may be a dime a dozen for way more capable units. This will depend largely on companies like AMD making advances in hashing rates at scales that cause upsets like the Ryzen series units.

## The quantum conundrum

DWave computers exist and do one thing astonishingly well. Exponential math, and solving problems like hashing will be right in line with what such machines are already capable of. With the right scripting it is entirely possible that this new technology could upset the entire crypto currency world in a few days of actual programming and testing. After all, hashing is complicated to a normal computer because of prime and subprime numbers, which must be solved by calculation in a traditional cpu. A quantum computer does it differently and terrifyingly fast. Normal computers suck at exponential math and so do I.

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Courtesy of [Linus Tech Tips](#)\* (We love that channel - subscribe to learn tons about computers and related subjects)

## **\$4000 vs \$15,000,000**

While we cannot estimate how fast a quantum computer "could" mine bitcoin off hand, we can kind of estimate that it would *generally do it 100,000,000 times faster than a conventional CPU*. So with a bit of clever pseudo comparison we can determine that if an i7 would take 439 years or, 160235 days... it would take a quantum computer merely, 0.00160235 days, which is roughly **no time at all**. So literally thousands of blocks per month would be broken by a single DWave computer and the owner would/could likely pay for that machine in less than a month. This vs a \$4000 miner that pays for itself in roughly 2-3 months... which is pretty astonishing. (Feel free to find a better way of calculating this for yourself, I'm not a math person.)

## **Will this happen?**

If it does expect a massive economic collapse of a biblical scale or just a block against the machine's architecture. Remember that as this tech progresses it will be available via the cloud, so if it isn't blocked, be an early adopter of whatever clever individual uses this angle to single handedly overthrow the entire cloud mining economy. And yes cut me a slice of that massive pie because you heard it here first. Obviously bitcoin only releases x number of blocks so this is far fetched-ish. Truthfully just by doing this to every kind of crypto currency a person could realistically get all the coin almost every week though.

\*You'll have bigger problems as passwords and conventional encryption could not ever pose a challenge to such a machine meaning the entire concept of internet security will be a sham by - 4 years ago.