

CHIA MINING

WHAT IS IT? WHAT DOES IT COST?

Chia Mining is far greener than most cryptocurrencies and has considerably fewer start-up costs.

Chia has made it cost-effective for the average person to start mining cryptocurrency. As many people consider this, you need to understand what is involved in Chia farming and how it compares to other Crypto's such as Ethereum.



CHIA BASICS



What is Chia "farming"?

Chia is a decentralized form of digital asset/cryptocurrency.



Why is it so popular?

Chia Coin and subsequently Chia farming is predicated on the notion that cryptocurrency should be made available for everyone to participate and profit from while using considerably fewer resources and energy than traditional crypto.



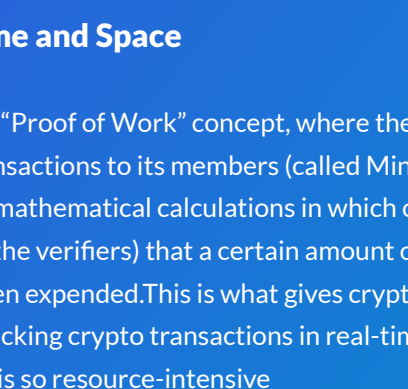
Green Crypto

It is far less resource-intensive than most cryptocurrencies, with so many miners around the world, computer processors consume exorbitant amounts of energy.



Financing required to launch Chia

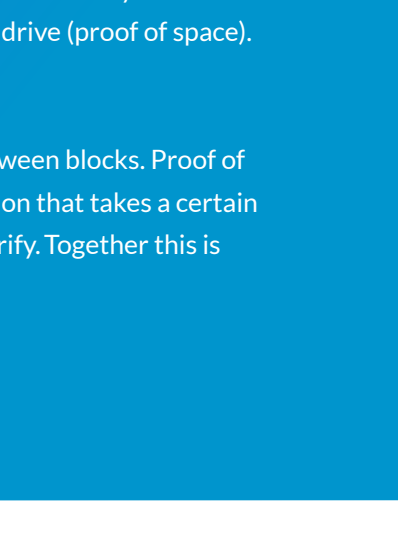
Less than \$500 with Raspberry Pi, carries with it considerably fewer hardware costs.



HOW IT WORKS

Proof of Work vs Proof of Time and Space

Traditional Cryptocurrency uses the "Proof of Work" concept, where the Blockchain puts out requests for transactions to its members (called Miners) who expend effort solving arbitrary mathematical calculations in which one party (the prover) proves to others (the verifiers) that a certain amount of a specific computational effort has been expended. This is a way to prove that you are security and with so many people tracking crypto transactions in real-time, it is no wonder why processing crypto is so resource-intensive



Proof of Space and Time

Proof of space

Like most cryptos, Chia farming records and facilitates these transactions by creating "plots" on hard drives, instead of through computational power. Each Chia plot is filled with data calculations that are stored, not unlike a spreadsheet, in blocks on temporary storage before being transferred to the second drive. This is a way to prove that you are keeping some storage unused on your hard-disk drive (proof of space).

Proof of time

Proof of time requires a small period to pass between blocks. Proof of time is implemented by a Verifiable Delay Function that takes a certain amount of time to compute but is very fast to verify. Together this is referred to as the space and time model.

CHIA MINING MINIMUM REQUIREMENTS

HARDWARE	SUGGESTED	PRICE
Dual Intel Xeon Silver 4210	20 cores @ 2.2 GHz	\$3,589
A temporary hard drive with a min. of 370 GB with high read/write speeds	2 TB NVMe M.2	\$414
A permanent hard drive with a min. 100 GB (10 TB HDD and up will be based on Fair Market Value)	10 x 10 TB HDD	\$2,500
At least 4 GB of available RAM	128 GB RAM	\$880
High Bandwidth	1 Gbps @ 50 TB Bandwidth	\$1,600/yr
3U Chassis	16 Drive Bays	\$630
Maintenance	Replacement Drives Month 8 and Month 12 (due to burn out) \$2,500 x 2	\$5,000
Total Purchase Price		\$14,613

ETHEREUM MINING MINIMUM REQUIREMENTS

This build uses the most popular performance GPUs that will yield the quickest ROI.

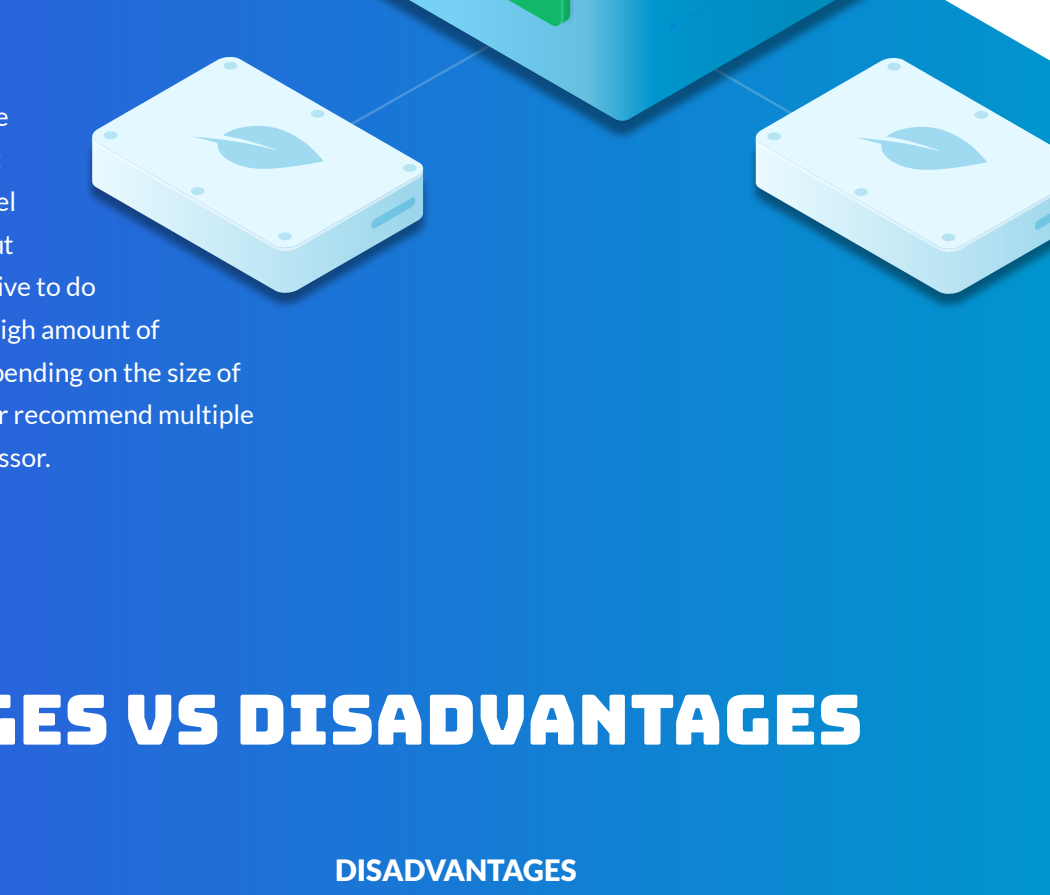
HARDWARE	SUGGESTED	PRICE
CPU	Intel Pentium Gold G-6400	\$149
GPUs (Target: 90-100 MH/s per GPU)	2 x Nvidia 3080 RTX	\$4,000
Motherboard	ASUS Prime Z490-P LGA 1200 (6 GPU)	\$475
Case	Custom Rig frame (up to 8 GPUs)	\$180
Power Supply	1200w Super Micro	\$250
HDD	WD Blue 3D NAND 1 TB Internal PC SSD - SATA III 6 Gb/s,	\$100
RAM	Axiom 8 GB DDR4 2666MHz Server Memory (A9781927-AX)	\$125
PCI-E Risers	Ubit 6 Pack Latest PCI-E Riser Express Cable 16X to 1X (6pin / MOLEX / SATA) with Led Graphics Extension Ethereum ETH Mining Powered Riser Adapter Card+60cm USB 3.0 Cable	\$60
Total Purchase Price		\$5,339

CHIA VS ETHEREUM COST ANALYSIS

	CHIA	ETHEREUM
Hardware costs	\$14,120	\$5,339
Energy costs	0.298 TWh is the annual power consumption as of 9/15/2021, based on the current net space of 34.1 EIB, as reported by Chiastatus.com.	Digiconomist estimates that Ethereum miners currently consume 44.49 TWh per year which works out to 5.13 gigawatt
Encryption method:	Nakamoto consensus algorithm	ECDSA (Elliptic Curve Digital Signature Algorithm)

PARALLEL PLOTTING

While Chia has low barriers to entry, to make serious money one must be farming multiple plots at once. This is referred to as Parallel plotting and anyone serious about getting into Chia, will want to strive to do this. Parallel plotting requires a high amount of RAM, from 32 GB to 128 GB, depending on the size of your server and we would further recommend multiple cores and threads for your processor.



ADVANTAGES VS DISADVANTAGES

ADVANTAGES

- Low financial barriers of entry
- Less energy-intensive
- Considered one of the more 'green' Crypto
- Earn blockchain rewards in the form of Chia Coin
- Has become very popular in a short period, driving up valuation

DISADVANTAGES

- Competition with large-scale miners can make it financially competitive
- Likely to replace multiple hard drives as cost of doing business
- Unless you have hundreds of TBs of storage, you may be waiting a long time for a request to arrive from the Chia Blockchain
- It is fairly new and like many Cryptos, it's still volatile

WHY USERS CHOOSE TO MINE CHIA (BENEFITS)

- Unless you are a big crypto miner, you can start relatively small and expand as you need, especially if you are patient.
- Take satisfaction knowing that Chia is less resource intensive as compared to other cryptos.
- It is new on the scene, early adopters could see early rewards
- Chia favors predictable, continuous inflation over a hard cap
- Plans to embrace regulators, particularly by leading with a company that has public reporting requirements
- The Chia blockchain has lots of native features that should make familiar crypto applications easier to trust and build

RENTAL PRICE

Recommended Server Configurations

DESCRIPTION	COMPONENT
Dual Intel Xeon Silver 4210	20 cores @ 2.2 GHz
A temporary hard drive with a min. of 370 GB with high read/write speeds	2TB NVMe M.2
A permanent hard drive with a min. 100 GB and up (and will be based on Fair Market Value)	10 x 10 TB HDD
At least 4 GB of available RAM	128 GB RAM
High Bandwidth	1 Gbps @ 50 TB Bandwidth
3U Chassis	16 Drive Bays
Maintenance	Replacement Drives Month 8 and Month 12 (due to burn out) \$2,500 x 2
Total Annual Rental	\$599 per month, plus \$250 set up

MARKET CAP - EARNING POTENTIAL (USD)

	CHIA	ETHEREUM	BITCOIN	DOGECOIN	CARDANO
Market Cap	\$344,954,162	\$407,596,310,923	\$869,759,153,531	\$4,116,674,167	\$77,507,887,826
Trading Volume	\$75,563,213	\$32,350,298,364	\$50,955,003,240	\$3,773,124,014	\$8,279,780,707

READY TO BECOME A CRYPTO FARMER?

Since 2002, ServerMania has provided hosting solutions to businesses of all shapes and sizes. We have the experience and technology to power even the most demanding projects.

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