Mining Workshop

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“If you don’t find a way to make money while you sleep, you’ll work until you die.”

Warren Buffett
FAQ #1
Is it too late to start mining?
Getting Started
Set a **budget**

**Research** currencies and GPU’s

**Plan** your rig

**Calculate** operating revenue/costs
Budget

FOCUSED DISCUSSION  Fuck it - taking out a third mortgage on my house. (self.CryptoCurrency)

submitted 2 months ago by CANNOT_BE_STOPPED on third mortgage buying crypto

You only get one chance at life so there's no point playing it safe. Cryptocurrency is the greatest chance most of us will ever have of making it big. The most you can lose is everything and I've already poured my heart and soul into this adventure.

I don't care about my maxed out credit cards - it wasn't even my money in the first place. Why should I care about some bank making a percentage off me? They're just going to get bailed out anyway.

They can't confiscate your Bitcoin. They have no idea what's going on.

We're going to make it folks.

82 comments share save hide give gold report crosspost
Research

Currencies
- Difficulty
- Market value
- Future prospects

GPU’s
- Hash rate
- Hash rate per dollar
- Power consumption
- Ease of use
Plan

Hardware
- CPU is irrelevant
- Aim for reliability (8GB RAM, SSD, some overhead on PSU)
- Chassis and cooling
- PCI-E risers

Software
- Windows 10 (Linux is more work for no benefit)
- Ensure there is compatible mining software
Calculate

Operating revenue
- Current market value of coin mined
- Consider historical value

Operating expenses
- Electricity costs (can exceed $100/month with 4+ GPU’s)

http://whattomine.com
FAQ #2

Does operating profit matter?
Sidenotes

“Mining” hardware
- Compromised
- Limited resale appeal
- “Optimised for mining” is bullshit

Cryptocurrency is an asset
- Know your tax obligations
- Mining can be a business activity
Mining cryptocurrency

1. I'm a cryptocurrency miner. Do I have to pay tax on receipts from mining cryptocurrencies?

Yes. We consider cryptocurrency mining to generally be an activity aimed at making a profit, not a hobby. Any mining-related fees or rewards are taxable income.

A cryptocurrency miner is a person who validates cryptocurrency transactions and maintains the ledger. In exchange for this service, they receive cryptocurrency.

2. I am mining cryptocurrency as part of a pool. How do I account for mining fees and rewards that I receive as a share from the pool?

Mining income is derived when the pool periodically distributes each miner's share.

3. What depreciation rate can I claim on cryptocurrency mining equipment?

See the Depreciation Rate Finder tool. 'Computers' is an 'asset category' for depreciation purposes.

http://ird.govt.nz/income-tax-individual/cryptocurrency-qa.html
Hardware
## AMD vs NVIDIA

<table>
<thead>
<tr>
<th></th>
<th>AMD</th>
<th>NVIDIA</th>
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</thead>
<tbody>
<tr>
<td><strong>Purchase cost</strong></td>
<td>$</td>
<td>$$</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td>Easy-going waifu</td>
<td></td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>Decent with BIOS modification</td>
<td>Decent with light tuning</td>
</tr>
<tr>
<td><strong>Mineable coins</strong></td>
<td>Monero/Ethereum</td>
<td>Basically anything</td>
</tr>
<tr>
<td><strong>Resale value</strong></td>
<td>$</td>
<td>$$</td>
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<tr>
<td><strong>Breakeven period</strong></td>
<td>Shorter</td>
<td>Longer</td>
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Why we (mostly) use AMD

We mostly mine Ethereum, better hash rate per dollar

Lower initial cost, faster breakeven

Experience with BIOS modification

We can afford voiding the warranty
Key PSU Considerations

Efficiency - ATX Gold or better

Connections - check the number of 8-pin PCI-E slots

Aim for ~100W overhead

Use name brands - EVGA, Corsair, etc.
Demo Rig

Thrown together from spare parts, not cheapest possible (but close)

Base components ~$830
- Intel Pentium G440 ~$80
- ASUS H170 motherboard ~$190
- 8GB DDR4 RAM ~$120
- 128GB SSD ~$80
- DIY MDF chassis ~$30
- 4x 6-pin PCI-E risers (~$25 each) ~$100
- Corsair RM850i power supply ~$230 (overkill for current 4 GPU’s)
GPU’s ~$1,880
- 4x Sapphire Pulse Radeon RX570 (4GB) ~$470 each

Total approx. cost ~$2,710

Base components can support another 2/3 cards (850W PSU has spare capacity, motherboard has available slots)
Software
Miners

Almost all Ethereum miners use Claymore

Can impose power limit

Allows control of voltage, core clock speed, memory clock speed
Pool Mining

The only option unless you own a data centre

Any good pool supports Claymore, so choice of pool should not affect mining configuration
GPU Drivers

NVIDIA: Stay up to date with the latest drivers

AMD: Stay up to date with the latest drivers or use their blockchain-specific drivers
Overclocking/BIOS

For Ethereum mining: underclock core, overclock memory

BIOS modification on AMD cards reduces power consumption and increases hash rate at any given memory clock speed.
Demo Rig

Miner: Claymore

Pool: Nanopool

GPU Drivers: AMD blockchain-specific

Overclocking: MSI Afterburner

BIOS Modification