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CRYPTO MINING

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ABSTRACT

A crypto currency is a digital asset made as a medium of exchange where each transition is stored in a ledger for everyone to see, crypto currency is made in a way that only a limited amount can be mined at a certain time like Doge or a limited quantity like Bitcoin. The crypto currency is like a reward that miners get for solving a puzzle in the block and the speed at which its solved is Hashing rate in this paper we are comparing three algorithms to find which gives the max hash rate.

Keywords: Crypto Currency, Crypto Mining, Algorithm Comparison.

I. INTRODUCTION

A crypto network is consisting of validating of transition by the miners or throw nodes that get reward by getting new coins, as the coins increases in circulation the reward descries as the puzzle becomes more harder to solve ,The rate the puzzles are being solved has become faster as new machines are built like ASICs and more powerful GPU are build .In the excrement we will test KAWPOW, OCTOPUS, Dagger Hashimoto to find which of the three algorithm has the highest hash rate.

II. METHODOLOGY

Here the project is based on crypto mining algorithm where we test out some of the top crypto mining algorithm available for ETH or Ethereum using crypto mining tools , The most widely used crypto mining tool is Nice Hash where it's simplified to mine almost any coin , most people mine the coin which is profitable at the time. We are benchmarking the GPU alone and not using the CPU power as its more power efficient.

ALGORITHM

KAWPOW

OCTOPUS

Dagger Hashimoto

III. MODELING AND ANALYSIS

In the experiment we are benchmarking the GPU alone and not using the CPU power as its more power efficient We will be testing the 3 algorithm one by one to see the result

KAWPOW

KAWPOW is one of the algorithms used in nice hash for mining Ethereum or RVN its used for low end GPU with 2GB ram and is very power efficient but due to low hash rate it's not really good unless you decide to under clock the GPU by increases the memory speed and clock speed while reducing the power.

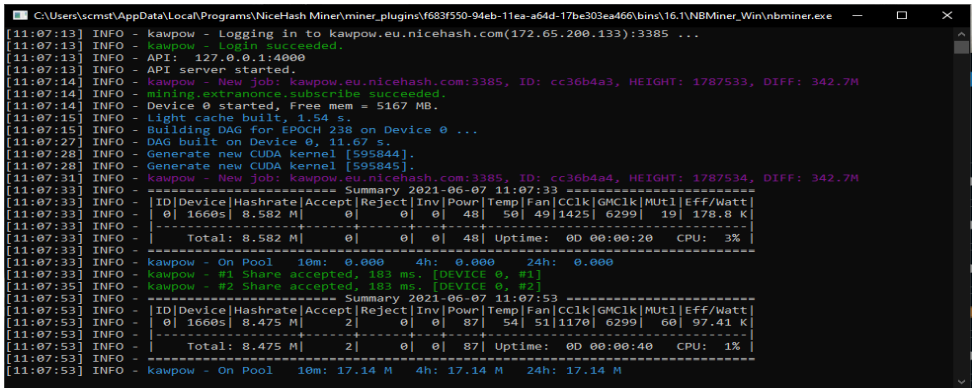

Figure 1: Hash Rate for KAWPOW

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DaggerHashimoto

Dagger Hashimoto is the most popular mining algorithm out there it provides the most hash rate as well as relatively power efficient but it's made for more powerful GPU with 3GB or more and will take in more power And can we under clock the GPU as well.

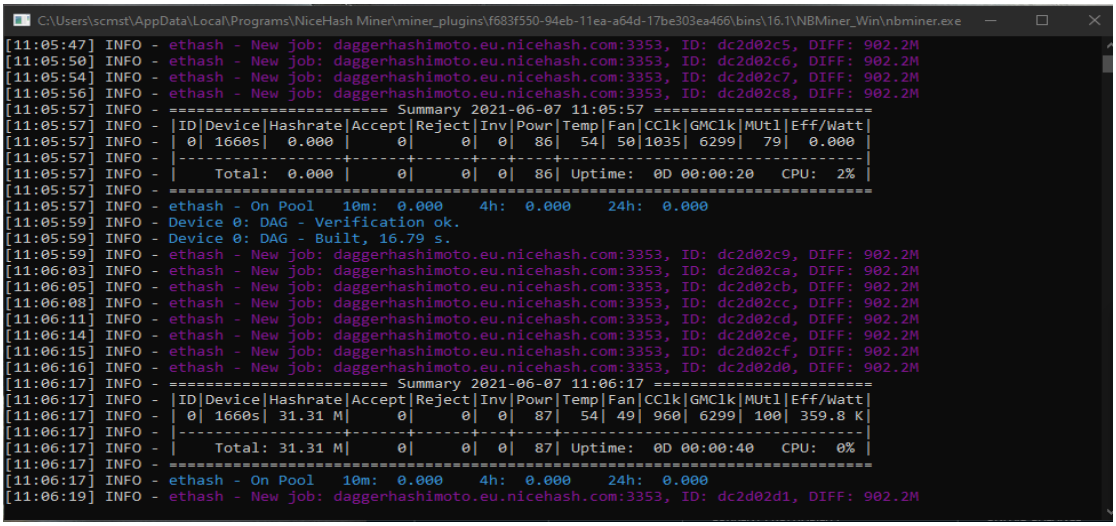

Figure 2: Hash Rate for DaggerHashimoto

OCTOPUS

Octopus mining algorithm is used for mining CFX and ETH and is used to for GPU mining and it prevents ASIC miners from using this algorithm and is memory intensive for the GPU and will reacquire 4 GB for optimal performance and the gpu can be under clocked for even better performance.

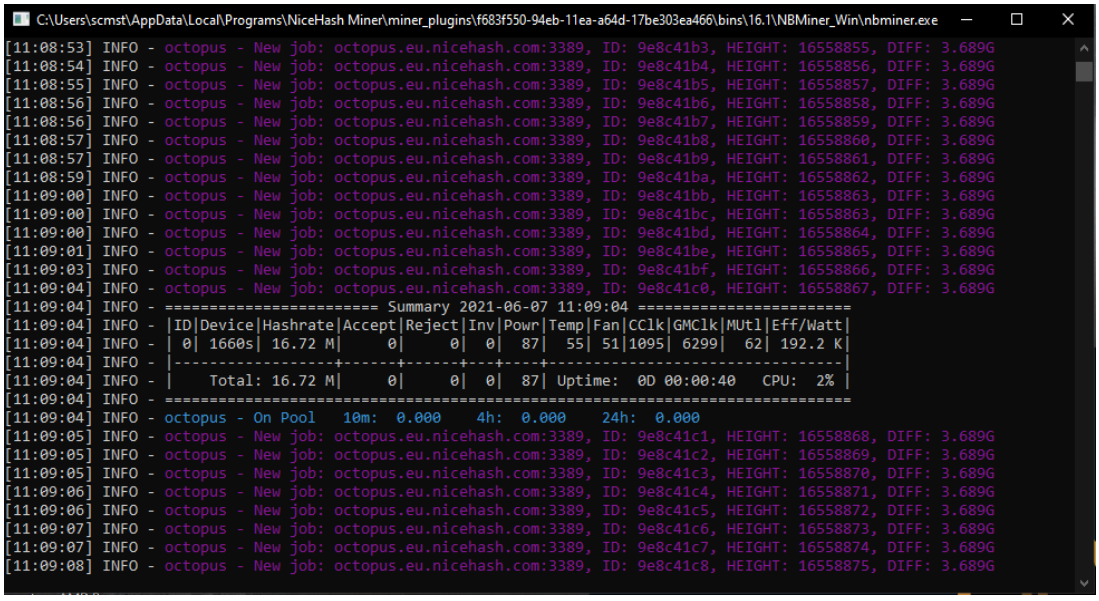

Figure 3: Hash Rate for OCTOPUS

IV. RESULTS AND DISCUSSION

The results are as you see while comparing the three algorithms the different in hash rate are as foll.

Table 1. Comparison oh Hash rate

SN.	Algorithm	M/h	power
1	KAWPOW	8.47	48w
2	Dagger Hashimoto	31.31	87w
3	OCTOPUS	16.72	87w

V. CONCLUSION

By comparing and testing the three crypto mining algorithm we find that KAWPOW has the lowest M/h and Dagger Hashimoto has the highest but KAWPOW consumes lower power that Dagger Hashimoto, thus in most case with a GPU decent power and has a direct power pin connecter will always prefer Dagger Hashimoto and for lower end GPU that can't meet the requirement will use KAWPOW. In the experiment we used a 1660 supper but when we tried using 1650Ti it did not support Dagger Hashimoto , OCTOPUS and only KAWPOW so in conclusion Dagger Hashimoto is better.

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