

# AchieveCoin

## distribute wealth without prejudice

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**Abstract** Since the beginning of trade some 5000 years ago, civilizations have been experimenting with different systems of money. Bitcoin, with the promise of decentralized and depreciation-free, has gained global interests and formed a stable-growing market in the past 10 years. By the rising of Bitcoin, comes the age of cryptocurrencies. AchieveCoin is a community-led project to create an experimental software derived from Bitcoin Gold and restart blockchain from zero. The purpose for doing this is to continue the innovation legacy of development community.

## Visions

1. AchieveCoin is derived from Bitcoin Gold which replaces Bitcoin's SHA256 proof-of-work algorithm with Equihash. Equihash is a memory-intensive algorithm that makes coin generating (mining) process more difficult for Application Specific Integrated Circuits (ASICs) computers. Mainstream computers can participate in the mining opportunity. By decentralizing, no single entity or hardware can control the entire network. AchieveCoin restarts mining from blockchain 0.
2. Invent an open-source Radial Code as alternative to QR Code and Barcode. Fully owned by public domain from the start, Radial Code has a beautiful structure that is readable by both machine and human. A small structure can hold all unique addresses of AchieveCoin.
3. Develop scrip/gift card products to make AchieveCoin and other cryptocurrencies accessible on existing retail distribution networks around the world.

## AchieveCoin Algorithm

Bitcoin mining is a proof-of-work system that implements “a distributed timestamp server on a peer-to-peer basis.” This is how the Bitcoin manages to maintain consensus across a vast, globally-distributed, permissionless network of nodes.

Satoshi Nakamoto chose SHA256 as the algorithm to use in the original design of Bitcoin’s PoW system. SHA256 served Bitcoin well during the early years of its existence, but as Bitcoin became more popular and more valuable, competition in mining became more fierce. Skilled engineers from a small number of companies developed Application Specific Integrated Circuits (ASICs) that could perform SHA256 calculations millions of times faster and more efficiently than any other computer. This made non-specialized computer hardware obsolete for mining Bitcoin. Satoshi’s vision of “one-CPU-one-vote” was replaced by one-ASIC-one-vote.

Now, the only way to participate in Bitcoin mining is to buy hardware from one of those manufactures - the biggest of which is believed to manufacture over 70% of the global supply of SHA256 ASICs. This has led to a situation where one entity can hold the entire network hostage, and this is exactly what happened when the backwards compatible Segregated Witness upgrade was blocked by a faction of miners, despite there being universal consensus from Bitcoin experts that it should be activated.

In order to counteract this concentration of power in the mining sector, AchieveCoin implements a new proof-of-work algorithm - Equihash. Replacing the SHA256 algorithm means that all of the ASICs designed for Bitcoin will be useless for mining AchieveCoin. Equihash is a memory-hard algorithm that can be most efficiently solved by GPUs - a standard type of computer and smartphone hardware that is manufactured by mainstream companies and available around the world. With ASIC manufacturers out of the picture, AchieveCoin provides an opportunity for a whole new class entrepreneurs and investors to get involved with mining. AchieveCoin mining is decentralized again, closer to Satoshi’s original vision.

## Radial Code

Each cryptocurrency address is a long unique string of numbers and letters between 27 and 34 characters. QR Code represents the address in machine-readable manner at point-of-sale systems. A subdivision of Toyota company created QR Code in 1994, who holds number of patents for QR code.

A better and fully public domain owned code which supports more data could open new doors for adoption of the currency and other technologies.

Analogy: Traditional AM radio signal carries information in the amplitude, FM radio in frequency. What if we encode the information in polarization direction, it could contain multitude amount of data in the same 3D space. Nature has already figured it out. For example, no two snowflakes are alike.

## Doing Business With or Without Smartphone

Many places in the world have yet enter the mobile-age. Scrip products, like gift cards, would offer faster, trust, more reliable, at lower cost for many commercial transaction scenarios. AchieveCoin.org will develop scrip products for decentralized and fiat currencies.

## Financial Strategy

In order to support the current and future development of AchieveCoin, the first blocks will have a reduced difficulty level that will allow the development team to mine these blocks very rapidly, and then the new difficulty adjustment algorithm will kick in and everyone will have the opportunity to mine on equal footing. As a result, the AchieveCoin development team will manage 1% of the total coin supply, which will be the main source of funding for three areas.

- $\frac{1}{3}$  develop and maintain the wellbeing of AchieveCoin network
  - Startup expenses
  - Development
  - Research
  - Testing
  - Ecosystem
  - Servers
  - System administration
  - Security and penetration testing by third-party
- $\frac{1}{3}$  develop new technologies and products on top of AchieveCoin to improve quality of life for all humankind
  - Radial Code
  - Scrip products
- $\frac{1}{3}$  educate and kindle public's interests in cryptocurrency
  - Meetups and developer conferences
  - Social media
  - Press releases

## Conclusion

AchieveCoin is a free open source project that is inspired to be a currency for distribute wealth without prejudice. Dream, Build, Achieve