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FROM THE

ENCYCLOPEDIA  
OF  
PHYSICAL BITCOINS  
AND  
CRYPTO-CURRENCIES



ELIAS AHONEN

FOREWORD BY

MATTHEW J. RIPPON PHD

EDITED BY

HOWARD KESSELMAN

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OFFICIAL TEASER TO THE  
ENCYCLOPEDIA  
OF  
PHYSICAL BITCOINS  
AND  
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RELEASED IN JULY 2016  
IN HONOR OF THE  
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*These coins are the lasting physical evidence  
Of the long process of technological and social progress  
Which will bring forth a new understanding of value  
With all its unknown consequences*

*This book is dedicated to the physical manifestation  
Of a trail-blazing culture of  
Innovators, ideologues, entrepreneurs, and artists  
Who will one day cause the world to move*

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## About the Authors



### Elias Ahonen

At the time of writing, Elias is completing the last year of his Honors Bachelor in Political Science at Wilfrid Laurier University in Waterloo, Ontario, Canada. In 2014 he published a free eBook guide to Casascius physical Bitcoins, which was well received and turned into this much larger project in part due to popular demand. Having been interested in Bitcoin since early 2013, he has built a varied collection of physical crypto-currency. In addition to its technological merits, he sees digital currency as a fascinating case study in economics, public opinion, regulation, the culture that has formed around it, and the differing ways in which it is interpreted by people of various ideological viewpoints (many of which are reflected in the physical coins themselves). His other interests include travel, photography, philosophy, entrepreneurship, and futurology.

### Matthew J. Rippon PhD

Matthew earned his BSc in International History in 2001 from the London School of Economics and Political Science. In 2008, he was awarded an MSc in Globalisation and Development at Queen Mary, University of London. His PhD, at the same institution, studied the intellectual property of geographically-specific food names. Matthew's current interests include crypto-currency, financial technology, libertarianism, black and white photography, and Russian literature. He became interested in Bitcoin in early 2012 and attended the London Bitcoin conference in September of that year. Matthew is currently writing a paper about innovators and entrepreneurs in the Bitcoin economy. In January 2016, he was granted Certified Bitcoin Professional (CBP) status by the Crypto-Currency Certification Consortium (C4).



### Howard Kesselman



Howard (aka. Bitcointalk.org user 'bithalo') is an 'avid' collector of physical crypto-currencies, with a wide interest in coins, paper wallets, and cards. While he does not focus on collecting 'rounds' that have no capability of storing crypto-currency, he is interested in pre-funded, empty, and DIY coins. The diverse collection, which he has been expanding since January 2014, contains over 200 different physical wallets by more than 50 manufacturers. He earned his Master of Science in Finance (MSF) degree at Florida International University and has over 20 years experience in finance and technology. Currently, he is an IT Consulting Manager and lives in Lake Worth, Florida, USA.



# Acknowledgments

In this non-exhaustive list, I would like to thank the following:

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For proofreading and analyzing his HardBTC store inventory to help with my research.

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For creating the useful Uberbills coin tracker.

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Everyone who shared their specialized knowledge with Matthew and myself, including but not limited to Scott Barnett, Took Groth, 'JJC', Morris La Mantia, and a large number of manufacturers.

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Jon Allen

Keeth Beharrell

Kolten Wilson

Michail Wilson

Orlando M. García

Patrick van der Kruis

Pawel Karbowski

P. Cyclops

Raimon Poves

Reed Taylor

Scott Barnett

Took Groth

# Glossary

**Alt-currency / Alt-coin:** One of over 500 crypto-currencies inspired by Bitcoin. Many use technologies that are viewed by proponents as improvements to Bitcoin.

**ANACS:** The oldest coin grading service in America, which has become the most popular service for grading physical crypto-currencies in coin-form.

**Balance:** The amount of BTC or alt-currency in an address.

**Bitcent:** A common name for 1/100th (0.01) of a bitcoin.

**Bitcoin:** The first and most widely used decentralized crypto-currency.

**Bitcointalk.org:** A popular internet discussion forum focusing on Bitcoin, including sub-forums for technical support, mining, development and economics. Similar forums exist for many alt-currencies.

**Blockchain:** The transaction database shared by all nodes participating in a system based on the Bitcoin protocol. A full copy of a currency's blockchain contains every transaction ever executed in the currency.

**Buyer-Funded:** A balance has been added to the coin by the buyer before shipment.

**Certificate:** A document issued by the manufacturer pertaining to a particular coin, usually to guarantee authenticity. They sometimes include the public key and serial number.

**Coin:** Conventionally, a piece of metal that is 'legal tender' issued by a government. In the crypto-coin context, it refers to a piece of metal with the intended function of containing a balance.

**Cold Storage:** Crypto-currency stored 'offline' and as such not quick to access and theoretically impossible to hack. Methods include USB sticks, offline hard-drives, paper-wallets, or physical coins.

**Denomination:** The amount of crypto-currency displayed on the coin, irrespective of funding. When no specific number is displayed, the currency code is used to indicate the coin's theme.

**Do-It-Yourself (DIY):** The coins are not sold as 'finished products', but require the buyer to produce their own private key and seal it themselves. The manufacturer does not need to be trusted in this scenario, as only the owner can see the private key.

**FinCEN:** The Financial Crimes Enforcement Network (FinCEN) is a bureau of the United States Department of the Treasury that collects and analyzes information about financial transactions in order to combat domestic and international money laundering, terrorist financing, and other financial crimes.

**Funded / Loaded:** The state of an address (specifically an address pertaining to a coin) having a balance.

**Grade:** The numismatic grade given to a physical coin by a service such as ANACS.

**Litecoin:** One of the first crypto-currencies, inspired by Bitcoin. As of writing it is the 2nd most popular crypto-currency.

**Microbit /  $\mu$ BTC:** A common name for 1/1,000,000th (0.000001) of a bitcoin.

**Millibit / mBTC:** A common name for 1/1,000th (0.001) of a bitcoin.

**Mining:** The process of adding transaction records to Bitcoin's public ledger of past transactions, known as the blockchain.

**Mintage:** The number of coins known or believed to have been created.

**Physical Crypto-Currency:** A fluid definition of crypto-currency in a 'physical form' such as coins, bars, cards, or even paper wallets. This guide focuses exclusively on the 'coin' (and 'bar') form.

**Plate / Pl.:** The state of a coin being thinly covered (plated) by a metal other than that of which the coin is composed of. This is often done for aesthetics or durability.

**Pre-Funded (PF):** A balance has been added to a coin by the manufacturer before shipment.

**Private Key Pit:** A recess stamped onto the back of physical crypto-currency in order to allow a piece of paper containing the private key to rest securely under the hologram.

**Private Key:** The 'password' to the BTC contained in any address (Public Key). This can be used to withdraw the balance of its address at any time.

**Public Key:** The 'address' in which any amount of bitcoin is/can be contained. The amount of BTC contained is visible publicly by looking up the address, and anyone can add BTC to the address.

**QR Code:** A 'Quick Response Code' which can be scanned by a smartphone. In the physical crypto-currency context this can be used to either check the balance of a coin (Public Key) or 'sweep' the balance of an address to another address (Private Key). It is quick compared to entering a long string of characters.

**Round:** Traditionally, a piece of metal mimicking currency in design but not issued by any government or having a legal tender value. In the crypto-coin context, it refers to pieces of metal with a crypto-currency 'theme' but which are not designed to actually hold a balance.

**Satoshi:** The name for the smallest possible unit of bitcoin which is 1/100,000,000th (0.00000001) BTC. Originally, the word refers to the creator of Bitcoin.

**Serial Number / Serialization:** Numbers engraved or otherwise noted on the coin (or on a certificate) indicating a specific number assigned to a coin. These generally start from 1 and continue onwards.

**Sticker / Hologram:** a sticker affixed or intended to be affixed to a coin, with the purpose of securing a private key. Normally, they have holographic elements.

**Unfunded (UF):** A coin with a working address is shipped to the buyer without a balance.



## Introduction

I bought my first physical Bitcoins in April 2013, when I purchased three 1 BTC Casascius coins online due to a combination of curiosity and the desire to hold some of my BTC in physical form as to avoid loss. At that time, I was fairly well acquainted with bitcoin and had acquired some earlier in the year after learning about the digital currency. These first coins turned into additional acquisitions, as I learned more about Casascius physical Bitcoins which were the only coin-like physical crypto-currency products available at the time. As my interest grew and the value of BTC increased, I began turning a small profit and further expanding my collection by buying, selling, and trading the coins online.

One day in June 2014 while reading *The 4-Hour Work Week* by Timothy Ferriss, I became inspired to take on some interesting project that I was well placed to execute. Within moments, I came to realize that nobody had yet written about physical crypto-currency in an extensive and organized fashion, and that I was in a perfect place to do so due to my knowledge base and free time. I immediately decided that I would write a book categorizing all Casascius physical Bitcoins, giving collectors a reliable source of information. I began my work that day, and managed to complete the 31 page *The CoinFIRM Casascius Guide v1* before my free 30 day trial of Adobe InDesign ran out. Numerous enthusiasts provided assistance with this project, including Charlie Shrem, the founder of BitInstant which was one of the first bitcoin exchanges, who assisted in matters of general guidance. Andrew Dobbins started a virtual 'Bitcoin Museum' collecting various Bitcoin memorabilia, and helped the project with photos and data about various specs. Matt Moss runs a 'coin analyzer' which tracks the public addresses of thousands of physical crypto-currencies, and provided me with invaluable data regarding redeemed and funded coins. I also received a sponsorship from David Bailey who runs HardBTC, an online store selling physical crypto-currencies. The website from which the eBook can be freely downloaded has been visited over 25,000 times to date, but the actual readership of the guide is difficult to estimate as the PDF has been often circulated online as a stand-alone document.

As I was writing my initial guide, I received queries asking if I would be focusing exclusively on Casascius coins. These requests inspired me to explore the possibility of expanding the project. As I published the Casascius Guide in July 2014, I announced my next project on the last page of the guide:

COMING SOON:

*The Comprehensive CoinFIRM Guide to Physical Bitcoins*

(or something like that) Expect over 120 pages categorizing every crypto-themed coin, round, and bar ever made along with manufacturer profiles, lots of interesting info, and much MORE!

Fast forward 20 months to March 2016: the book is finally ready for publication.

My original intention was to complete the book by January 2015. I planned to release the work for free, covering my costs by putting small banner ads or occasional larger ads on the majority of pages. In practice, this was to work by individual manufacturers sponsoring the pages on which their coins appeared. Due to the rapidly increasing selection of physical crypto-currencies on the market, the scope of the book expanded much beyond the originally intended 120 pages. This expansion, along with competing personal priorities and the unexpected difficulties that occur when trying to publish a book, led to a multitude of delays. After the January 2015 completion was not achieved, the timeline was pushed to April 2015, followed by July 2015, December 2015, January 2016, and finally to April 2016.

In April 2015, I announced pre-orders of a limited edition paperback version of the otherwise free (at the time) eBook. I also created a crowd-funder, which initially raised over 1000 USD but failed due to errors I made in the set-up phase that prescribed a slightly higher 'minimum amount' than that which was raised. As the crowd-funding site was based in the UK and therefore received most funding in GBP, I used the same currency to set the base price of the paperback even though I am based in Canada.

In June 2015, I was contacted by Matthew Rippon who wanted to interview me about physical crypto-currencies as part of an article about Bitcoin for *The International Journal of Entrepreneurship and Innovation*. Being very impressed with his research, I had several discussions about physical crypto-currencies with him and directed him to various individuals of interest to expand his research. After the exchange of dozens of emails over a four week period, I asked him to collaborate with me on this book.

With over 300 back-and-forth emails, weekly discussions, and numerous interviews with both manufacturers and collectors, Matthew's contribution has been huge. Being an academic, he has transformed the book from a simple catalogue of coins into a semi-academic work that relays a near complete understanding of physical crypto-currencies to the intelligent layperson who is otherwise uninformed about the subject matter.

In July 2015, I decided to forego the original plan of releasing a free eBook. By doing this, I was better able to focus on creating quality content as opposed to putting my energies into selling ad space. This decision was made in response to feedback I received from several potential buyers, who felt that the ads took away from the professionalism of the work and did not reflect well on the hobby of collecting physical crypto-currencies as a whole. I agreed with the sentiment, saying that "this is a professional, specialized publication" as opposed to a more casual magazine-like publication that commonly displays such ads.



Howard Kesselman was originally contacted by Matthew who arranged an interview with him to gain knowledge from an established collector. He displayed great enthusiasm in the project and unreservedly offered his assistance. Howard has proved extremely helpful, going to great lengths checking and adding to the database from which all of the coin specs are derived. In addition, he has taken many photos of his own extensive collection to ensure quality images throughout the *Encyclopedia*. Since November 2015, he has been working directly with Matthew and myself.

As I have learned in the months leading up to publication, writing a book like this is no small task. Matthew, Howard, and I have all expressed amazement at the amount of work that has actually been put in. I am the first to admit that had I suspected the process to be as complex as it has been, it is unlikely I would have begun in the first place. One problem that came to light in the late stage of completion was that of proportion and print quality. As I discovered, a computer monitor displays an image perfectly at 72 PPI (pixels per inch), whereas a printed photo requires 300 PPI. This meant that while my book which was configured in 100 PPI looked great when viewed on a monitor, it did not quite meet the quality standards of professional printing. To fix this, I hired a freelancer who had to individually copy, paste, and enlarge each element of the book; a task which took over two weeks. One interesting thing that has been continually encountered are the surprisingly large number of variations between standard spellings and grammatical nuances between UK, US, and Canadian English. Quite humorously, having a PhD edit hundreds of pages of one's writing is a rather humbling process, and I have discovered many opportunities to improve my writing and change some habits when it comes to certain uses of grammar and punctuation. Overall, writing this *Encyclopedia* with a highly motivated and competent team has been an incredibly rewarding experience full of learning and personal development.

Throughout the book, the best available photos and the most reliable sources of information have been used for the purpose of accurately recording the physical crypto-currency phenomenon for perpetuity. Due to the nature of the subject matter including rarity, unavailability, and expense, it is not practical to personally produce quality photos of all subjects in a standardized fashion. As such, the quality and style of photos vary as they have been taken by a number of individuals and businesses with varying equipment and ability. All written content has been produced by the authors and/or editor unless where cited otherwise.

The majority of photos have either been taken by the authors/editor, or direct permission has been granted by the original photographer. A significant subset of photos and graphics such as logos have been taken or created by the coin manufacturers for promotional and/

or informational purposes and posted publicly to the Internet. Some photos have been posted publicly on the Internet by anonymous or pseudo-anonymous individuals for the purpose of educating viewers about the coins. In this environment, the original photographer cannot always be reliably identified or contacted. All photos in this *Encyclopedia* are meant for the purposes of commentary and scholarship, and are ultimately used under the Fair Use doctrine of copyright law which allows limited use of copyrighted material without attribution or permission from the rights holders for such purposes.

In a similar vein, it should be remembered that information regarding some of the coins contained in this book can be very difficult to come by and/or verify. As such, all information presented, specifically in the spec boxes, are accurate to the best understanding of the authors/editor. Some information is missing on a number of coins. While the *Encyclopedia* documents all notable physical crypto-currencies released, a few other varieties are known to exist, and have been intentionally left out due to the information regarding them being so insubstantial that devoting a page to such a coin would reflect badly on the work as a whole. Adding them all would have resulted in many pages with very low quality images (or no images at all) with few if any specs available, and nothing more than a sentence or two of intelligent commentary on an otherwise blank entry. I am confident that a good balance has been struck between comprehensiveness and overall quality.

For readers who are anything less than experts in the subject matter, I highly recommend the following reading order. After reading the Foreword, skip directly to the *Casascius* section on pages 79-116, followed by the *Lealana* section on pages 185-197.

While I certainly owe the greatest gratitude to Matthew and Howard for their expert contributions, I wish to extend a further message of thanks to the wider community of physical crypto-currency collectors and manufacturers. It is your collective appreciation for my work that has inspired me to create this book. Furthermore, it is the numerous messages of excitement, unreserved offers of help, and anticipation for the completed work, even after over a year of delays and changes, that have kept my focus on the goal. In addition to this, I have been honored by the trust and support given to me by everyone who has pre-ordered this book.

To all those who share an interest in physical crypto-currencies, your inspiration and enthusiasm is the very reason for its existence. This book belongs to you.

Elias Ahonen  
March 2016



# Foreword to Encyclopedia of Physical Bitcoins and Crypto-Currencies

Introduction

The Material Culture of Physical Bitcoin

Typology of Physical Bitcoin Producers

Value of Physical Bitcoin

Regulation of Physical Bitcoin

Collectors of Physical Bitcoin

Structure of the Encyclopedia

Conclusion

Endnotes

Only the ‘Structure of the Encyclopedia’ and ‘Endnotes’ are included in this free eBook.

To read the full **Foreword**, purchase the *Encyclopedia of Physical Bitcoins and Crypto-Currencies* at [www.coinfirm.org](http://www.coinfirm.org) or a retailer like [Amazon](https://www.amazon.com).

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HOWARD KESSELMAN

## Structure of the Encyclopedia

This work covers physical Bitcoin manufactured between summer 2011 and early 2016. 'Coins' and 'bars' contain a private key and have either been pre-funded by the producer, by the purchaser in advance of receipt, or can potentially be funded by the buyer. They include coins that do not contain a private key but have the ability to have one added by the purchaser. The crucial aspect, whether these coins are producer funded, buyer funded, unfunded, or self-assembled is that they meet the definition of a wallet since they come with a private key or one can be added. These coins have a hologram (or, less commonly, a sticker) which conceals the private key (except in the case of Alitin coins which have the private key engraved on the side of the coin). By comparison, 'rounds' do not include a private key and do not possess the flat bare surface area (let alone a private key pit) necessary to append a private key. They are, in effect, tokens rather than wallets. The *Encyclopedia* focuses on coins, bars, and rounds that are made from metal and therefore excludes paper wallets<sup>66</sup> and plastic cards like Bitbills, Crypto Coin Wallet Cards,<sup>67</sup> and Prypto.<sup>68</sup>

Bitcoin is the original and dominant crypto-currency which inspired the creation of other digital currencies and it has thus become conventional to refer to non-bitcoin currencies as 'alternative'. The term is not meant to pass judgement on the legitimacy or value of these 'alt currencies'. Litecoin, for example, is barely considered an 'alt' and its many supporters consider it to be as legitimate as Bitcoin. The *Encyclopedia* does not privilege bitcoin and thus depicts coins endowed with a wide variety of 'alt' currencies including dogecoin, litecoin, monero, primecoin, and worldcoin.

The description for each entry displays:

**Manufacturer:** the official name of the producer.

**Make:** the name of the coin provided by the producer along with any nicknames.

**Type:** is divided into five sections.

**Pre-Funded (PF)** – the coin is directly funded by the manufacturer.

**Buyer Funded (BF)** – the buyer directly funds the coin before it is shipped.

**Unfunded (UF)** – shipped with a private key but without loaded value.

**Do It Yourself (DIY)** – the customer can affix a private key and hologram.

**Rounds** – the object does not have the capacity to contain a private key and hologram.

**Year:** when the coin was first advertised for sale.

**Denomination:** the amount and type of crypto-currency displayed on the coin.

**Material:** this may be silver or gold or a less prestigious material such as brass, copper, or zinc. Specific types of a metal such as Antique Copper or Merlin Gold are mentioned.

**Mintage:** the number of coins produced; sub-mintages are given when appropriate.

**Diameter:** the width of the coin.





**Figure 5:** Popular coins of the five Types: from top left PF – Pre-Funded (Casascius); BF – Buyer Funded (Lealana); UF – Unfunded (Cryptolator); DIY – Do It Yourself (Silver Wallets); Round (Anarcoins).

**Thickness:** the distance between the top and bottom of the coin.

**Weight:** in grams (and ounces or troy ounces when appropriate).

**Country:** the location of the manufacturer.

**Highest Grade:** provided solely for Casascius which is the most commonly graded producer. The grade significantly affects the coins' value in the secondary market. The grade is the highest that has been publicized.

Depending on the producer and coin, each entry may explore the biography of the manufacturer, detail the coin's appearance (in particular any memorable or unusual features), reveal its historical significance, and analyze the design, iconography, hologram, colors, size, and weight. There are photographs of the front and back of each coin. The photographer has, on occasion, strategically concealed the public address to preserve his privacy.



## Endnotes

1. Nakamoto is anonymous so there is no way to confirm his gender. Satoshi could be a man, woman, group of people, company, organization, or government agency. 'He' presented himself as male.
2. "Bitcoin: A Peer-to-Peer Electronic Cash System" Satoshi Nakamoto (2008). Link: <https://bitcoin.org/bitcoin.pdf>
3. The protocol is 'Bitcoin' while the currency is 'bitcoin'.
4. Miners perform proof-of-work (POW) exercises on the 'candidate block' of unconfirmed transactions. Miners use the computational power of their hardware to rapidly hash the candidate block and generate a hash below a defined number known as the difficulty target. The first miner to achieve this is rewarded with 25 BTC at the time of writing.
5. Two excellent guides to Bitcoin are "Mastering Bitcoin: Unlocking Digital Cryptocurrencies" Andreas Antonopoulos (2014) and "Bitcoin for the Befuddled" Conrad Barski and Chris Wilmer (2014).
6. "Silk Road: The Untold Story" *Wired* 23 May 2015. Link: <http://www.wired.com/2015/05/silk-road-untold-story/>
7. The bitcoin price rose from 13 USD on 1 January 2013 to 1,120 USD on 29 November 2013.
8. "Bitcoin Isn't the Future of Money – It's Either a Ponzi Scheme or a Pyramid Scheme" *Washington Post* 8 June 2015. Link: <https://www.washingtonpost.com/news/wonkblog/wp/2015/06/08/bitcoin-isnt-the-future-of-money-its-either-a-ponzi-scheme-or-a-pyramid-scheme/>
9. Bitcoin 2.0 businesses employ the blockchain to – among other uses – issue smart contracts, validate identities, and notarize documents.
10. That said, Mike Caldwell, founder of Casascius coins, appears in the documentary "The Rise and Rise of Bitcoin" (2014) for three minutes and 19 seconds from 45:57. Link: <http://www.imdb.com/title/tt2821314/> He discusses his filming experience at <https://casascius.wordpress.com/2013/05/19/casascius-coin-production-featured-in-the-rise-and-rise-of-bitcoin/>
11. This is not to suggest that physical Bitcoin enthusiasts do not research coins. I merely note that, until now, there has not been a comprehensive catalogue which provides data and photographs on all known manufacturers and their products.
12. The prefix is typically the first eight digits of a coin's public address. The first character is '1' and each of the next seven characters can be one of 58 examples. As such, there are a total of 2,207,984,167,552 possibilities which means that the likelihood of finding two public addresses with the same eight first characters is remote. The full public address can either be discovered by entering the first characters on a blockchain website like <https://btc.blockr.io/> or is shown on an enclosed certificate.
13. Casascius holograms were successfully compromised at the DEF CON hacker convention in August 2013. Caldwell immediately took measures to ensure that future coins were tamper-proof. "Casascius Physical Bitcoins Cracked at Defcon" Link: <http://codinginmysleep.com/casascius-physical-bitcoins-cracked-at-defcon/> "Defcon 21: Successful Compromise of the Hologram Reported" Link: <https://casascius.wordpress.com/2013/08/04/defcon-21-successful-compromise-of-the-hologram-reported/>
14. This is only the case for Alitin. Link: <http://www.alitinmint.com/Home/About>
15. "Paper Bitcoin Wallet" Link: <https://web.archive.org/web/20110629211014/http://www.casascius.com/>
16. "Introducing Bitbills!" *Bitcoin Talk* 9 May 2011. Link: <https://bitcointalk.org/index.php?topic=7724>
17. "CASASCIUS PHYSICAL BITCOIN – In Stock Now! (pic)" *Bitcoin Talk* 6 September 2011. Link: <https://bitcointalk.org/index.php?topic=41892>
18. "Mind in Matter: An Introduction to Material Culture Theory and Method" Jules David Prown (1982) *Winterthur Portfolio* 17: 1 p. 1.
19. Chinese mints make coins for Western producers but infrequently make their own original physical Bitcoin. The only known examples to date are Geek Bitcoin and Chinese Businessman.
20. "First Ever Graded Casascius Coins?" *Bitcoin Talk* 24 April 2013. Link: <https://bitcointalk.org/index.php?topic=186098>



21. “Grading Coins – A Few Basic Questions” *Bitcoin Talk* 27 July 2015. Link: <https://bitcointalk.org/index.php?topic=1136216>
22. For example, “[WTS] Casascius, Lealana, CI, Veri, Antai \*OPEN FOR BUSINESS\*” *Bitcoin Talk* 3 August 2015. Link: <https://bitcointalk.org/index.php?topic=1142211>
23. Caldwell advertised in all 22 print issues of *Bitcoin Magazine*.
24. A producer auction is “Lealana Auction” *Bitcoin Talk* 7 February 2015. Link: <https://bitcointalk.org/index.php?topic=948952> and a re-seller auction is “Casascius 25 BTC coin” *Bitcoin Talk* 1 August 2015. Link: <https://bitcointalk.org/index.php?topic=1140324>
25. Nakamoto stated (p. 1) that “[w]hat is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party.”
26. Bitcoin Improvement Proposals (BIPs) are modifications to the Bitcoin protocol or information about suggested amendments. Link: [https://en.bitcoin.it/wiki/Bitcoin\\_Improvement\\_Proposals](https://en.bitcoin.it/wiki/Bitcoin_Improvement_Proposals)
27. “Casascius” Link: <https://casascius.com/2factor/>
28. Some physical Bitcoin producers create their own two factor schemes. While this does secure bitcoin from interlopers, it in no way negates the need for buyers to trust the manufacturers.
29. Wallet software uses entropy to generate the private key and public key. The resulting public key is hashed with SHA-256 and RIPEMD-160, the hexadecimal prefix 0x01 and checksum is added, and the result is encoded with Base58Check to produce the public address.
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Endnotes with hyperlinks are available online at:

<http://www.coinfirm.org/Endnotes.pdf>

Elias Ahonen

**The Complete 'Casascius' Section  
of the  
Encyclopedia of Physical Bitcoins  
and Crypto-Currencies  
(pages 79-116)**

To read the complete *Encyclopedia of Physical Bitcoins and Crypto-Currencies*, purchase your copy at [www.coinfirm.org](http://www.coinfirm.org) or a retailer like [Amazon](http://Amazon). Worldwide shipping!

ENCYCLOPEDIA  
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PHYSICAL BITCOINS  
AND  
CRYPTO-CURRENCIES



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## Casascius Physical Bitcoins

Mike Caldwell first learned about Bitcoin in late 2010, and became very interested in its technical aspects. Being a programmer, he was able to understand the abstract technical principles behind Bitcoin but had difficulty simplifying the concept into something that could easily be explained to less technically adept people.

The problem was that people had an emotional connection to money as something that could be ‘owned’, so the concept of ‘bits’ on the Internet holding monetary value was too abstract for the average person to understand or remain interested in. For this reason, a bridge needed to be built between computer science and the physical realm. If a bitcoin could be handed to someone, giving them immediate and exclusive ownership of the ‘funnymoney’, then perhaps the concept wouldn’t seem quite as crazy. A physical Bitcoin: now that’s a conversation starter.

Mr. Caldwell came up with the idea of buying a few hundred small metal washers and placing tamper-proof holograms on each side to secure a private key inside. He only considered the idea of minting metal coins after the realization that custom made holograms were expensive and it would actually be cheaper to use a coin and hologram as opposed to two holograms. After some shopping around, he settled on a company that specialized in minting currency for so-called micro-nations in addition to arcade and car-wash tokens. Though physical appearance was not a priority, a Bitcoin themed design was created and soon the first Casascius brass coins were minted. Having no experience in hologram technology, Caldwell deferred to experts who helped to design the series 1 hologram with various security features.



Above: A washer like this with two holograms could have been the first Casascius coin.

Caldwell had no desire to generate profit with the Casascius venture. Holograms were his greatest initial expense, and the brass tokens cost between 25 and 50 cents each. He ran the business purely as a hobby, funding coins on an ad-hoc basis according to orders, which he accepted only in BTC and priced to merely cover his material expenses. As interest in

Image Credits (clockwise): Casascius, public domain



All things considered, Mr. Caldwell is and will remain the father of the physical crypto-currency phenomenon, and has inspired hundreds of different coins and rounds into existence.

## Counterfeiting Incident

Casascius coins are selling for increasingly high amounts, and with such amounts changing hands it is only a matter of time before fake products enter the market. Few things of value are immune to this; there is fake money, fake bullion bars, fake passports and fake versions of nearly every perfume and clothing brand. Counterfeiting cannot be stopped, but steps can be taken to avoid buying an un-original product. To date, there has only been one known case of a fake coin being listed for sale: a ‘convincing’ 25 BTC coin was listed on eBay by new user ‘tradus 1980’ in February 2014. Two months prior, a photo showing a sheet of hologram stickers mimicking Casascius’ series 1 1 BTC 2011 coins came to light, with each sticker having a unique code. They are similar but clearly identifiable to the trained eye; they have not appeared for sale to date (it cannot be confirmed if the fake on eBay used one of these). Casascius commented on the incident, saying that “They use a different type face for the main Casascius as well as a slightly different B-logo shape. My series 1 coins also use a dot-matrix style printing with fixed width characters, rather than the solid characters in a proportional font that appear in this photo.”<sup>1</sup>



Above: two of the unauthorized holograms on their wax sheet.

Assuming that Casascius coins (and other physical crypto-currencies) increase in value and maintain a robust market, it is likely that increasingly convincing replications will be passed on as original coins bearing a crypto-currency balance. The best defense against such actions is education and information, as well as a healthy suspicion and attentiveness.



Image Credits (clockwise): Unknown, Casascius

1. “POSSIBLE COUNTERFEITS TO BE AWARE OF” Link: <https://casascius.wordpress.com/2013/12/10/possible-counterfeits-to-be-aware-of/>



Casascius coins increased, improved holograms and a greater range of coins and even bars were released. Early adopters bought large denomination products in multiples, including 1,000 BTC gold coins.

As the value of BTC increased exponentially, Casascius produced smaller denominations of 0.5 BTC and 0.1 BTC. At the same time, buyers became increasingly interested in silver coins even though their production cost and therefore overhead were much higher than for the simple brass coins. These 'luxury' coins became sought after because the value of the BTC they contained was now much greater, and in some ways the use of silver was seen to be more superior to the 'no frills' features of brass coins.

Mr. Caldwell was very aware of the inherent contradiction of trust-less money being stored in a way that allowed a third party (himself) to handle the private keys of others' BTC. By virtue of selling Casascius coins, he felt that he was promoting the idea that he should be trusted with private keys because of his honesty and transparency. He did not want to be trusted in this way, as it violated what he regarded as the true ethos and purpose of bitcoin. In response to this, he invented Bitcoin Improvement Proposal 38, or BIP38 for short. This was a system that allowed Bitcoin to be held in addresses that required a password-protected private key to access. Once the improvement was implemented, Casascius began to promote a new line of 2-factor products that allowed owners to control the private key and ensured that Casascius could not access the funds.

As the value of bitcoin rose significantly, safety became a source of some concern. While the value of BTC that he loaded into the first coins was small at the time, towards the end of his operations he had funded coins with a total of over 90,000 BTC. Had this all been un-redeemed, it would have been worth over 100 million USD during the BTC bubble in late 2013. While he had no way of accessing any of that BTC, someone with bad motives could well assume otherwise.

Contrary to popular belief, FinCEN did not 'shut down' his operations. The federal authorities wanted Mr. Caldwell to register Casascius as a Money Services Business. With the aforementioned issues pressing against him, Caldwell considered the FinCEN involvement as the last straw of complicating factors, and decided not to continue. It is important to remember that Casascius was not operating for the purpose of profit, and the compliance with regulatory matters would thus have been prohibitively costly.

Casascius could be seen as a victim of its own success, with Caldwell deciding to remove himself from the spotlight in late 2013. Since ending operations, he has moved on to other pursuits and is far less actively involved with Bitcoin. When he first considered the idea of physical Bitcoins, he thought that Bitcoin would make a "funny story someday". It is certain that while many such 'funny stories' make up the history of Bitcoin, the innovation in financial technology that it represents will remain significant even if the currency is surpassed by something superior.



# Casascius Physical Bitcoin

Series 1 1 BTC 2011 'Error'



**Manufacturer:** Casascius

**Year:** 2011

**Denomination:** 1 BTC

**Type:** PF

Load Year	Total	Unopened
2011	4,160	3,419
2012	1,578	1,390
2013	371	371
2014		
<b>Total</b>	<b>6,109</b>	<b>5,180</b>

**Material:** Brass

**Diameter:** 28.5 mm

**Thickness:** 1.5 mm

**Weight:** 6.8 g

**Country:** USA

**Best Grade:** MS-69

Announced on September 6th of 2011, these coins were the first funded physical Bitcoins ever produced.

They are sought after both for their significance as the first coin of their type, but also due to the added perception of rarity due to a spelling error (Casascius is spelled as 'CASACIUS') in the small hologram text.

There are two special varieties of this coin. For one, 1,574 of these were actually funded in early 2012. Second, there is an ultra-rare type in which the first-bits are not in the middle, but significantly higher on the hologram. Only five of these exist.

In December of 2013, an image of fake holograms imitating the error emerged. This was the first counterfeiting related incident regarding physical crypto-currency.



# Casascius Physical Bitcoin

Series 1 1 BTC 2011 ‘Double Error’



Manufacturer: Casascius  
 Year: 2011  
 Denomination: 1 BTC  
 Type: PF

Load Year	Total	Unopened
2011	5*	?
2012		
2013		
2014		
<b>Total</b>	<b>5*</b>	<b>?</b>

Material: Brass  
 Diameter: 28.5 mm  
 Thickness: 1.5 mm  
 Weight: 6.8 g  
 Country: USA

These five coins are distinctive in having the first-bits, which are usually in the middle of the hologram, printed 3 mm higher than normal.

The specific coins and even load year are unknown, but they are all series 1 1 BTC 2011 ‘Error’ coins, making these five the rarest of the already sought-after variety.

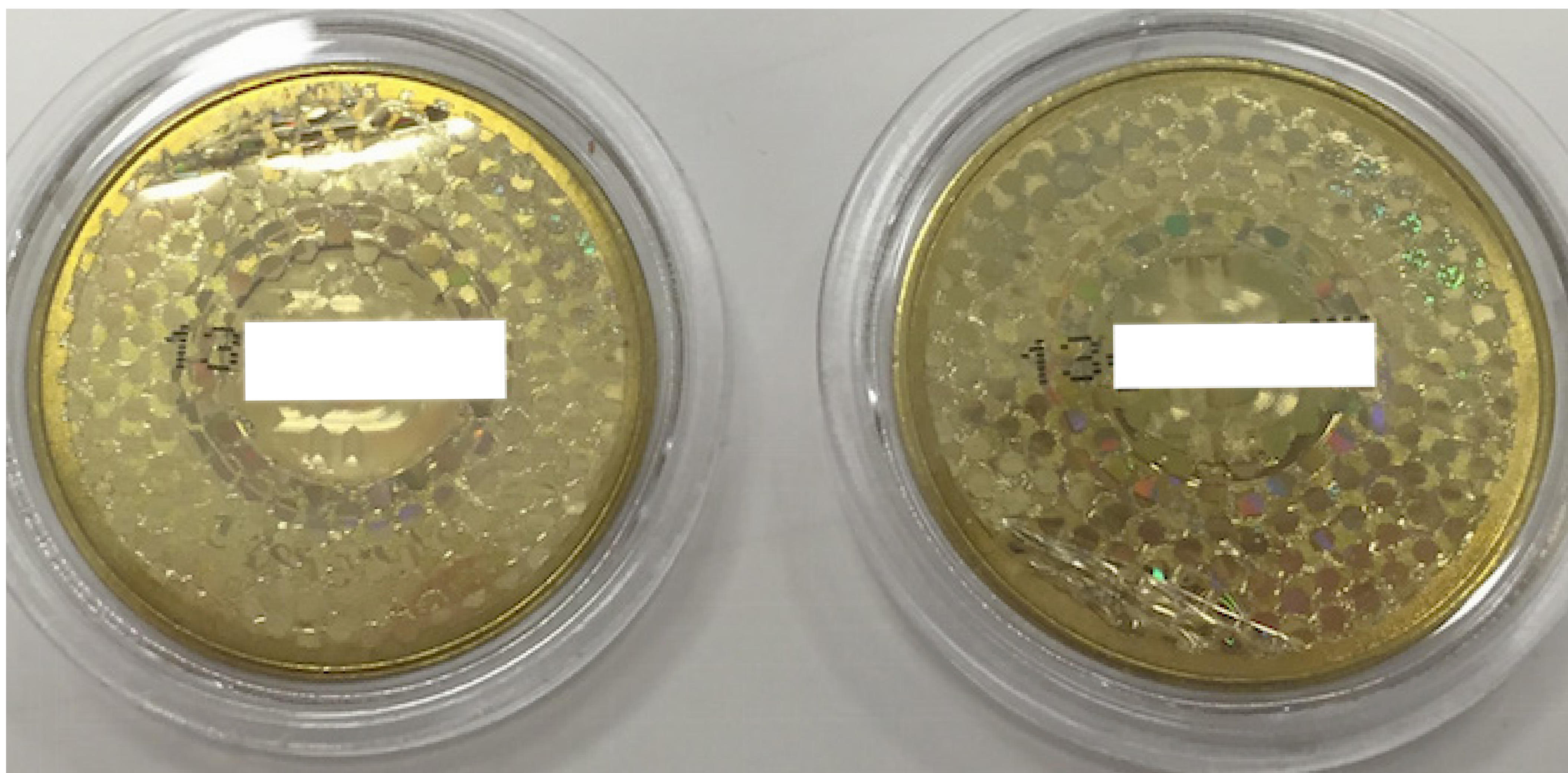
Overlooking the prototype gold coin, this is the rarest Casascius coin. At the time of writing, only two have been ‘discovered’. Considering that about a fifth of the series 1 1 BTC 2011 coins have been redeemed, it is probable that not all five remain unredeemed. Of any that have been redeemed, it is very unlikely that the peeled hologram(s) will ever surface as they were not considered worth preserving. Considering also that many early Casascius coins were given as gifts and forgotten, it remains to be seen if more of these coins surface with time.

\*These numbers are not subtracted from the series 1 1 BTC 2011 stats.



# Casascius Physical Bitcoin

## Series 1 1 BTC 2011 'Demo Coin'



<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	1 BTC
<b>Type</b>	UF
<b>Mintage</b>	
<b>Material</b>	Brass
<b>Diameter</b>	28.5 mm
<b>Thickness</b>	1.5 mm
<b>Weight</b>	6.8 g
<b>Country</b>	USA

These are the first experimental coins made by Casascius. They were used to test the holograms to reveal the honeycomb pattern left behind, without ever being funded.

The coins can be identified by looking up the public key on a peeled, seemingly 'pre-funded' coin. If no BTC has ever been in the address, then it is possibly a demo coin. Currently, demo coins are only known to exist in brass 1 BTC form.

Casascius sold these coins to prior buyers as extras. On a few occasions, buyers who ordered Casascius coins had the option to also buy some 'demo' coins along with them.

While no numbers relating to these coins exist, it is no doubt that they are extremely rare compared to the mintages of normal Casascius coins. It has been suggested that these coins may be an effective way to invest in the collectable value of Casascius coins without exposure to BTC price fluctuations.



# Casascius Physical Bitcoin

Series 2 1 BTC 2011



**Manufacturer:** Casascius  
**Year:** 2011  
**Denomination:** 1 BTC  
**Type:** PF

Load Year	Total	Unopened
2011	1,644*	1,400*
2012		
2013		
2014		
<b>Total</b>	<b>1,644*</b>	<b>1,400*</b>

**Material:** Brass  
**Diameter:** 28.5 mm  
**Thickness:** 1.5 mm  
**Weight:** 6.8 g  
**Country:** USA  
**Best Grade:** MS-66

Appearing only two months after the Series 1 coins, Series 2 was a significant innovation. This new version utilizes a hologram with a small window to prove the presence of the first-bits and private key inside, making it impossible to rub the first-bits off and fraudulently print a new public key onto the hologram. It is worth taking note that these coins are in fact much more rare than the Series 1 1 BTC ‘Error Coin’.

\*Numbers refer to series 2 1 BTC 2011 coins funded in 2011. There may be a small additional number that were funded in 2012 and are counted in the series 2 1 BTC 2012 numbers.

Below: a close-up of the center section of the hologram

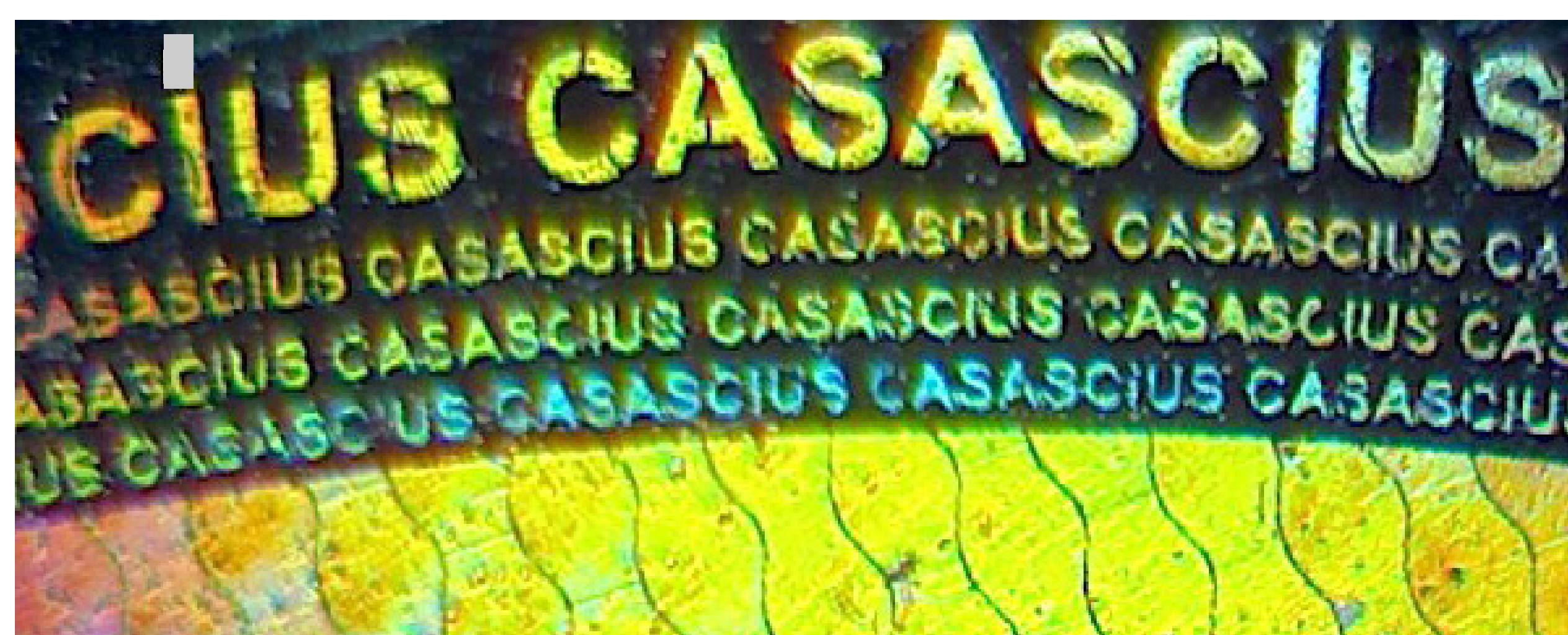


Image Credits (clockwise): Andrew Dobbins, Jon Allen, Bitcointalk.org user ‘etotheipi’



# Casascius Physical Bitcoin

Series 2 1 BTC 2012



**Manufacturer:** Casascius

**Year:** 2012

**Denomination:** 1 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012	4,089*	3,501*
2013		
2014		
<b>Total</b>	<b>4,089*</b>	<b>3,501*</b>

**Material:** Brass

**Diameter:** 28.5 mm

**Thickness:** 1.5 mm

**Weight:** 6.8 g

**Country:** USA

**Best Grade:** MS-69

This coin is identical to the 2011 version, except the year '2012' is displayed on the front.

A significant number (nearly a fourth) of these coins have been redeemed, most likely as a direct result of the dramatic rise in bitcoin value in late 2013.

\*The numbers refer to series 2 1 BTC coins funded in 2012. This number may possibly contain a small number of coins marked '2011'.

In August 2013 at DEF CON 21, it was reported that a Casascius coin was successfully compromised. It was done by injecting small amounts of certain chemicals through a small hole in the hologram using a hypodermic needle. This allowed the hologram to be removed and replaced. Reportedly, the hologram of the tampered coin was not as 'vibrant' as non-tampered ones. There have not been any reports of a compromised coin 'in the wild' or being put up for sale.



# Casascius Physical Bitcoin

Series 2 1 BTC 2013



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 1 BTC

**Type:** PF2

Load Year	Total	Unopened
2011		
2012		
2013	8,221	7,726
2014	131	131
<b>Total</b>	<b>8,352</b>	<b>7,857</b>

**Material:** Brass

**Diameter:** 28.5 mm

**Thickness:** 1.5 mm

**Weight:** 6.8 g

**Country:** USA

**Best Grade:** MS-69

This is the 2013 version of the 1 BTC brass coin. It is the most common Casascius coin when not accounting for the DIY aluminum rounds. 2014 versions of this coin would have surely been even more numerous, had Casascius not ended the sale of pre-funded coins.

This coin was the first to have a 'lobe' cut into the private key pit in order to help stabilize the private key and first-bits during assembly, as they often appeared crooked in older coins.

Some Casascius coins, including up to about 100 1 BTC coins, were funded in 2015 and 2016. They had been originally sold by Casascius to re-sellers during the period of normal operations, who had paid in full with the agreement that funding would happen at a later date when the reseller sold the coins. As far as it is known, all such coins are now funded, with ~36 being in 2015 and ~75 in 2016. It is not known what amount of these late-funded (LF) 1 BTC coins were brass as opposed to silver, but many of those that were late-funded are likely to be this variety.

Image Credits (clockwise): Elias Ahonen (all)



# Casascius Physical Bitcoin

Series 3 1 BTC 2013



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 1 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012		
2013	1,300*	*
2014		
<b>Total</b>	<b>1,300*</b>	<b>*</b>

**Material:** .999 Silver

**Diameter:** 39 mm

**Thickness:** 3 mm

**Weight:** 1 ozt

**Country:** USA

**Best Grade:** MS-70

Notable in this coin is the ‘laser rimming’ which appears on the edges of the series 3 hologram as a golden texture. Mike theorized that the process would create an interesting obstacle to anyone attempting to tamper with the coins. This process has later been utilized by Lealana for some coins.

These coins were sold and shipped in tubes of 20, though some individual orders were taken initially.

Casascius had originally intended to produce 5 BTC silver coins, but though the mold was created, the plan was scrapped in favor of 1 BTC, 0.5 BTC, and 0.1 BTC series 3 silver coins due to the “tenfold rise in the Bitcoin price over the past four months”<sup>1</sup> to 140 USD.

Interestingly, some of the late-funded (LF) coins were sent to be graded by ANACS long before they were actually funded. That means that there are a number of slabbed and graded coins which were un-funded at the time that the grading took place.

Image Credits (clockwise): Unknown, Took Groth

1. “REVISED PLANS FOR 2013 SILVER COINS” Link: <https://casascius.wordpress.com/2013/04/28/revised-plans-for-2013-silver-coins/>



# Casascius Physical Bitcoin

## Series 3 1 BTC 2013 'Gold Rim'



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 1 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012		
2013	700*	*
2014		
<b>Total</b>	<b>700*</b>	<b>*</b>

**Material:** .999 Silver

**Diameter:** 39 mm

**Thickness:** 3 mm

**Weight:** 1 ozt

**Country:** USA

**Best Grade:** MS-70

This is the same as the original series 3 1 BTC 2013 coin, but with a solid gold plating applied to the 'B' and the outer rim on both sides. This plating is of a higher quality than that of the series 2 10 BTC 2012 'Gold B' coins.

These coins are derived from the series 3 1 BTC 2013 coin of which 2,000\* were originally made. 700 of them were converted to this 'Gold Rim' version by Casascius.

\*20 of these 2,000 coins have been opened; it is not known what the distribution between normal and 'Gold Rim' is.



Image Credits (clockwise): Jon Allen, Took Groth



# Casascius Physical Bitcoin

Series 1 5 BTC 2012 'Error Bitnickel'



**Manufacturer:** Casascius

**Year:** 2012

**Denomination:** 5 BTC

**Type:** PF, DIY

Load Year	Total	Unopened
2011		
2012	651	570
2013	26	26
2014		
Blanks	N/A	N/A
<b>Total</b>	<b>677</b>	<b>596</b>

**Material:** Nickel Pl. Brass

**Diameter:** 28.5 mm

**Thickness:** 1.7 mm

**Weight:** 7.4 g

**Country:** USA

**Best Grade:** MS-68

Released in January 2012 with the series 1 hologram, these coins were priced at 6 BTC each. At release, Casascius announced that a silver-tone hologram would be released soon.

All 5 BTC coins appear to have signs of wear on the 'S', 'T', 'N', 'E', 'R', and 'I' of the 'Vires In Numeris' motto, seemingly created in the minting process.

Casascius later released an unknown number of 40-coin rolls without holograms as blanks, identifying them as 'Roll Your Own'. Such a roll came with sheets of laser cut private key tabs and solid gold colored stickers allowing the buyer to create their own coins by using either the provided private keys or by inserting their own. This sale was likely done due to an excessive stock of Bitnickels.



# Casascius Physical Bitcoin

## Series 2 5 BTC 2012 'Bitnickel'



**Manufacturer:** Casascius

**Year:** 2012

**Denomination:** 5 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012	133	84
2013	447	367
2014		
<b>Total</b>	<b>580</b>	<b>451</b>

**Material:** Nickel Pl. Brass

**Diameter:** 28.5 mm

**Thickness:** 1.7 mm

**Weight:** 7.4 g

**Country:** USA

**Best Grade:** MS-68

Released three months after the series 1 'Error Bitnickel' was offered for sale, this is the 'true' Bitnickel featuring a silver (or nickel) tone hologram. Interestingly, less of these were made than the series 1 versions.

On August 18th, 2015, six additional 5 BTC coins were funded by Casascius. These had been fully paid for and delivered years earlier, but funded much later. It is unknown who owns these notable late-funded coins.



Image Credits (clockwise): David Bailey, Jon Allen



# Casascius Physical Bitcoin

Series 3 0.1 BTC 2013



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 0.1 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012	8	7
2013	764	760
2014	37	37
<b>Total</b>	<b>809</b>	<b>804</b>

**Material:** .999 Silver

**Diameter:** 25 mm

**Thickness:** 1.5 mm (est.)

**Weight:** 0.25 ozt

**Country:** USA

**Best Grade:** MS-70

On top of being the smallest denomination Casascius coin, this was also the last. Had Casascius continued the production of coins into later years, it is likely that he would have moved towards smaller denominations such as this and even to 0.05 BTC or 0.01 BTC (such as Microsoul), as 0.05 BTC in late 2013 was the dollar-equivalent of several BTC when Casascius first started to make coins.

The coin uses the same size hologram as the series 3 0.5 BTC coin, but lacks 'laser rimming' which the series 3 1 BTC coin features. These coins were sold in rolls of 20, meaning they ended up in relatively few hands.

The seven remaining unredeemed coins that were funded in 2012 are extremely rare, and are likely held by some of the first buyers.



# Casascius Physical Bitcoin

## Series 2 0.5 BTC 2013



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 0.5 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012		
2013	2,959	2,836
2014	125	125
<b>Total</b>	<b>3,084</b>	<b>2,961</b>

**Material:** Brass

**Diameter:** 25.4 mm

**Thickness:** 1.5 mm

**Weight:** 5.55 g

**Country:** USA

**Best Grade:** MS-68

On February 17, 2013, Casascius released these coins saying “This is being added due to the rise in bitcoin value”. The price of Bitcoin had risen from under 14 USD to nearly 30 USD within a couple of weeks.

As with the 2013 series 2 1 BTC coins, there is a ‘lobe’ on the private key and its pit to ensure correct positioning.

It is known that at least 42 0.5 BTC coins were late-funded in 2015 and 2016. It is unknown how many of them are of this variety.



Image Credits (clockwise): Howard Kesselman, Unknown

1. “THE FIRST OF THE 2013 1BTC COINS HAVE GONE OUT” Link: <https://casascius.wordpress.com/2013/02/17/the-first-of-the-2013-1btc-coins-have-gone-out/>



# Casascius Physical Bitcoin

Series 2 0.5 BTC 2013 'Void Coin'



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 0.5 BTC

**Type:** UF

Load Year	Total	Unopened
2011		
2012		
2013	N/A	N/A
2014		
<b>Total</b>	<b>N/A</b>	<b>N/A</b>

**Material:** Brass

**Diameter:** 25.4 mm

**Thickness:** 1.5 mm

**Weight:** 5.55 g

**Country:** USA

**Best Grade:** MS-66

These coins were given out to the press as gifts. They are different than typical 0.5 BTC Brass coins in that they have no public or private key, but instead display a repeating “VOID” in the window. These were shown in the movie *The Rise and Rise of Bitcoin* and were custom made in order not to compromise the private keys while these coins were being assembled on screen. While it is uncertain how many of these were created, it is estimated that roughly 12 were made and given to the press. It is unknown how many survive today as these may well have been discarded by unknowing recipients who were not collectors, especially considering that these coins contained no bitcoin. A search was conducted by Jon Allen (Bitcointalk.org user ‘Eodguy149’), who got in touch with several members of the media who were associated with the film. He was able to locate three coins by this method. The coin shown in the picture above is the actual coin owned by the producer, Ben Bledsoe, from the movie.



# Casascius Physical Bitcoin

## Aluminum Promotional Coin



**Manuf.:** Casascius

**Year:** 2013

**Denomination:** BTC

**Type:** DIY

Version	Mintage
Plain	
Gold	
Red	
Purple	
Blue	
Green	
<b>TOTAL</b>	<b>80,000</b>

**Material:** Aluminum

**Diameter:** 32 mm

**Thickness:** 1.3 mm

**Weight:** 2.7 g

**Country:** USA

These light and cheap coins are the only non-denominated Casascius coins, and come with no hologram stickers or private keys. There is a slight indent on the back to make storing a private key under a personal sticker easier.

One popular function of the coins is for use as personal business cards; simply create a sticker of your contact details and put it on the back. This has been utilized by some Bitcoin companies.

Perhaps unexpectedly, these coins have been used as a medium by other coin producers to create pre-funded or unfunded physical crypto-currency for commercial purposes. These include SerpCoin, Cryptofreeze, AussieBTC, and others.

They are sold in packages of 500, and are the only item available through Casascius after normal production and sale of coins ended.

These coins come in different colors, though the majority are plain aluminum.

Image Credits (clockwise): Unknown (all)



# Casascius Physical Bitcoin

## Series 2 0.5 BTC 2013 'Silver Error'



**Manufacturer:** Casascius

**Year:** 2013

**Denomination:** 0.5 BTC

**Type:** PF

Load Year	Total	Unopened
2011		
2012		
2013	45*	45*
2014		
<b>Total</b>	<b>45</b>	<b>45*</b>

**Material:** .999 Silver

**Diameter:** 30 mm

**Thickness:** 2.7 mm

**Weight:** 0.5 ozt

**Country:** USA

**Best Grade:** MS-68

“In addition we produced 45 half-BTC coins with the series-2 sticker which were not numbered into these rolls. These were available to those who made initial orders, though are no longer available for sale”.

The coins were created to avoid wasting leftover series 2 holograms. They were sold in rolls of 12.

\*It is assumed that none of these coins have been opened, as those receiving them likely understood their rarity and only two out of all silver 0.5 BTC coins are known to have been opened.



Image Credits (clockwise): unknown (all)

1. “STATUS ON SILVER COINS (JULY 23)” Link: <https://casascius.wordpress.com/2013/07/23/status-on-silver-coins-july-23/>



# Casascius Physical Bitcoin

## Series 3 0.5 BTC 2013



**Manufacturer:** Casascius  
**Year:** 2013  
**Denomination:** 0.5 BTC  
**Type:** PF

Load Year	Total	Unopened
2011		
2012		
2013	871	869
2014	15	15
<b>Total</b>	<b>886</b>	<b>884</b>

**Material:** .999 Silver  
**Diameter:** 30 mm  
**Thickness:** 2.7 mm  
**Weight:** 0.5 ozt  
**Country:** USA  
**Best Grade:** MS-70

Released alongside the series 3 1 BTC 2013 coin, these were sold in rolls of 12. Unlike their 1 BTC counter-parts, these (like the 0.1 BTC coin) series 3 holograms do not utilize 'laser rimming' as a security measure.

It is known that at least 42 additional 0.5 BTC coins are late-funded (LF) in 2015 and 2016. It is unknown how many of them are of this silver variety. It is unknown if any LF 'Silver Error' coins exist.



Image Credits (clockwise): Jon Allen, Unknown



# Casascius Physical Bitcoins

## Series 2 10 BTC 2012



**Manufacturer:** Casascius  
**Year:** 2012  
**Denomination:** 10 BTC  
**Type:** PF

Load Year	Total	Unopened
2011	96*	78*
2012	290*	258*
2013	103*	99*
2014		
2015	4*	4*
<b>Total</b>	<b>493*</b>	<b>439*</b>

**Material:** .999 Silver  
**Diameter:** 39 mm  
**Thickness:** 3 mm  
**Weight:** 1 ozt  
**Country:** USA  
**Best Grade:** MS-67

Created in 2012, this was the first silver coin made by Casascius and a precursor to the 2013 series 3 line of silver coins. Four coins were funded in 2015.

This design builds upon the back of the Casascius 25 BTC coins, resulting in a smooth design that looks good in silver. Very similar designs are found in the coins of Lealana and Cryptolator. The 0's and 1's spell out 'Bitcoin: an idea too big to fail' in binary.

The same size and weight as the later 1 BTC silver coin, it is significant to note the missing 'laser rimming' which is present in the 1 BTC silver coins as well as the Lealana 1 BTC Silver Bitcoin line. This coin came shipped within a plastic capsule, protecting it (especially the later 'Gold B' design with its less than superior plating) from wear.

\*Mintage figures represent both series 2 and series 2 'Gold B' versions; specific numbers are unknown, but the 'Gold B' is assumed to be more rare. It can be speculated that a total of 500 were minted, with seven rejected and/or retained by Casascius.

Image Credits (clockwise): Casascius (all)



# Casascius Physical Bitcoin

Series 2 10 BTC 2012 ‘Gold B’



**Manufacturer:** Casascius  
**Year:** 2012  
**Denomination:** 10 BTC  
**Type:** PF

Load Year	Total	Unopened
2011	96*	78*
2012	290*	258*
2013	103*	99*
2014		
2015	4*	4*
<b>Total</b>	<b>493*</b>	<b>439*</b>

**Material:** .999 Silver  
**Diameter:** 39 mm  
**Thickness:** 3 mm  
**Weight:** 1 ozt  
**Country:** USA  
**Best Grade:** MS-67

This coin is the same as the series 2 10 BTC 2012 version, albeit with a gold plating added over the Bitcoin sign. It is notable that this coin (this specific image) is proudly displayed by Casascius as his Bitcointalk.org thumbnail image, and is prominently visible on his website. It could be argued that this is among the most visually appealing of Mike Caldwell’s work.

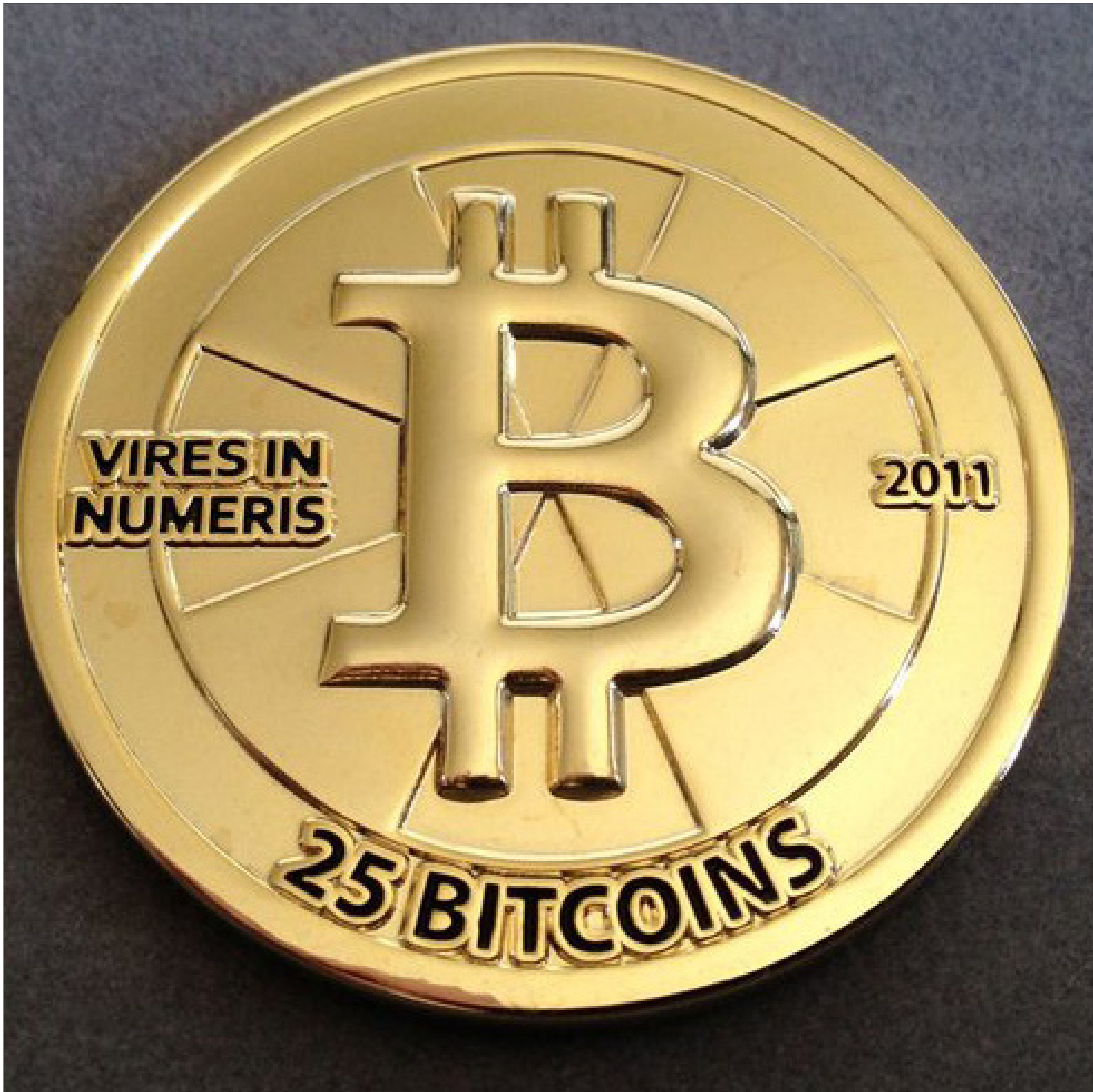
The quality of the gold plating is said to be less than ideal, and was improved upon in the series 3 1 BTC 2013 ‘Gold Rim’ coins. Since these coins were shipped inside capsules, the plating is not an issue as long as they remain inside.

\*Mintage figures represent both series 2 and series 2 ‘Gold B’ versions; specific numbers are unknown, but the ‘Gold B’ is assumed to be more rare. It can be speculated that a total of 500 were minted.



# Casascius Physical Bitcoin

Series 1 25 BTC 2011 'Error'



**Manufacturer:** Casascius

**Year:** 2011

**Denomination:** 25 BTC

**Type:** PF

Load Year	Total	Unopened
2011	338	202
2012	5	4
2013	2	2
2014		
<b>Total</b>	<b>345</b>	<b>208</b>

**Material:** Gold plated alloy

**Diameter:** 44.5 mm

**Thickness:** 3 mm

**Weight:** ~1.2 oz

**Country:** USA

**Best Grade:** MS-67

Made in a different style than Casascius' other coins, this 25 BTC piece is iconic. Its black lacquered text stands out and is easy to read, and the raised 'B' exudes confidence. It has been frequently displayed in the media in articles relating to Bitcoin, most notably during the extensive coverage of the November 2013 price surge.

On the reverse, the 0's and 1's spell out "You asked for change, we gave you coins" in binary, a reference to the 'change' Bitcoin might bring to the world economy and Caldwell's role in advancing it by his production of coins. Many coin producers have drawn inspiration and utilized a similar 'binary edge' design on their coins.

As far as public perception goes, this may be the most easily recognizable 'bitcoin' along with the series 2 1 BTC 2013 and series 3 1 BTC 2013 'Gold Rim'.

2012 and 2013 funded versions are extremely rare.



# Casascius Physical Bitcoin

Series 2 25 BTC 2011



**Manufacturer:** Casascius  
**Year:** 2011  
**Denomination:** 25 BTC  
**Type:** PF

Load Year	Total	Unopened
2011	29	19
2012	197	143
2013	260	194
2014	1	1
<b>Total</b>	<b>487</b>	<b>357</b>

**Material:** Gold plated alloy  
**Diameter:** 44.5 mm  
**Thickness:** 3 mm  
**Weight:** ~1.2 oz  
**Country:** USA  
**Best Grade:** MS-67

The same coin as the series 1 25 BTC, this version features the series 2 hologram for added security.

Somewhat ironically, only a small fraction were actually funded in 2011 as the year on the coin implies, making those ones very scarce.



Image Credits (clockwise): Charlie Lee, Unknown



# Casascius Physical Bitcoin

Series 1 1,000 BTC 2011 'Prototype' Gold Coin



<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	1,000 BTC
<b>Type</b>	BF
<b>Mintage</b>	1
<b>Material</b>	.999 Gold
<b>Diameter</b>	30 mm
<b>Thickness</b>	2.8 mm (est.)
<b>Weight</b>	1 ozt
<b>Country</b>	USA

This rarest and most valuable of all Casascius coins is also the first gold coin produced by Casascius, and was meant to be only a prototype. Mr. Caldwell's did however sell it to a buyer he met at a conference, who was unwilling to wait for a new coin to be minted.

The pictured coin was sold by the original buyer for 1,000,000 USD (paid as a mix of USD, BTC, LTC, and gold) in November 2013, the highest price ever paid for a Bitcoin related item. If the value of 1 BTC were ever to approach 10,000 USD, this coin could potentially become the most valuable coin ever sold.



Image Credits (clockwise): JJC



# Casascius Physical Bitcoin

## Series 1 1,000 BTC 2011 Gold Coin



<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	1,000 BTC
<b>Type</b>	BF, PF
<b>Mintage</b>	~7*
<b>Material</b>	.999 Gold
<b>Diameter</b>	30 mm
<b>Thickness</b>	2.8 mm (est.)
<b>Weight</b>	1 ozt
<b>Country</b>	USA

\*Estimated total of series 1 and series 2 gold coins

This coin was released in December 2011, when the total price of the coin, including the 1,000 BTC, was only about 5,000 USD. The Casascius 1,000 BTC coin was the first gold coin funded with crypto-currency.

The coin pictured is the only one known to be funded in 2011, discounting the prototype coin. It is not known if it is the only series 1 gold coin. The first-bits for this coin are laser-engraved on the upper part of the hologram, making it impossible for the address to be manipulated. As with the prototype, 'laser rimming' is not utilized for this coin.

Image Credits (clockwise): Casascius





# Casascius Physical Bitcoin

## Series 2 1,000 BTC 2011 Gold Coin



<b>Manuf.</b>	Casascius
<b>Year</b>	2011, 2012
<b>Denom.</b>	1,000 BTC
<b>Type</b>	BF, PF
<b>Mintage</b>	~7*
<b>Material</b>	.999 Gold
<b>Diameter</b>	30 mm
<b>Thickness</b>	2.8 mm (est.)
<b>Weight</b>	1 ozt
<b>Country</b>	USA

\*Estimated total of series 1 and series 2 gold coins

Made-to-order through a local mint, the Casascius gold coins were offered for about 200 USD above the gold spot price in addition to the buyer supplying the required 1,000 BTC, technically making them 'BF' instead of 'PF' coins.

The total number of coins produced and sold is known to be at least seven, of which two or more have been redeemed.

The series 2 coin features 'laser rimming' as an additional safeguard, and the hologram is engraved with '1000 BTC' to signal that it is funded.





# Casascius Physical Bitcoin

## Series 1 100 BTC 2011 Bar

**Manufacturer:** Casascius

**Year:** 2011

**Denomination:** 100 BTC

**Type:** PF

Load Year	Total	Unopened
2011	56	16
2012	1	1
2013		
2014		
<b>Total</b>	<b>57</b>	<b>17</b>

**Material:** Gold plated alloy

**Diameter:** 80 x 40 mm

**Thickness:** 6 mm

**Weight:** 118 g (in wrap)

**Country:** USA

When the first bar was funded in November 2011, its contents would have been worth about 350 USD. For this reason it is quite understandable why two-thirds of owners rushed to redeem their bars in order to sell their precious contents as the value of BTC rose. As far as Casascius coins go, it is normal for the percentage of redeemed coins to be relatively low; the opposite is true when it comes to bars. Bars have a very high rate of redemption. This might be caused by a presumption that they were not as collectible or valuable as coins. The 'purchase price' (premium) of bars was a low percentage of the actual value contained in them, as opposed to coins (a 5 BTC coin was sold for 6 BTC; a 20 percent premium).

Image Credit: Steven Steiner





# Casascius Physical Bitcoin

## Series 2 100 BTC 2011 Bar

**Manufacturer:** Casascius

**Year:** 2011

**Denomination:** 100 BTC

**Type:** PF

Load Year	Total	Unopened
2011	29	11
2012	35	23
2013	22	21
2014		
<b>Total</b>	<b>86</b>	<b>55</b>

**Material:** Gold plated alloy

**Diameter:** 80 x 40 mm

**Thickness:** 6 mm

**Weight:** 118 g (in wrap)

**Country:** USA



Like its predecessor, the series 2 bar comes stamped with '100 BTC' below the hologram. This bar had the largest production of the denominated Casascius bars, with the most unopened specimens still remaining. The photo on the left demonstrates the plain polished back of a bar that is still in its original plastic wrap. All Casascius bars are identical on the back with a smooth brass surface.

Image Credits (clockwise): Bitcointalk.org user 'hyphymikey', Elias Ahonen

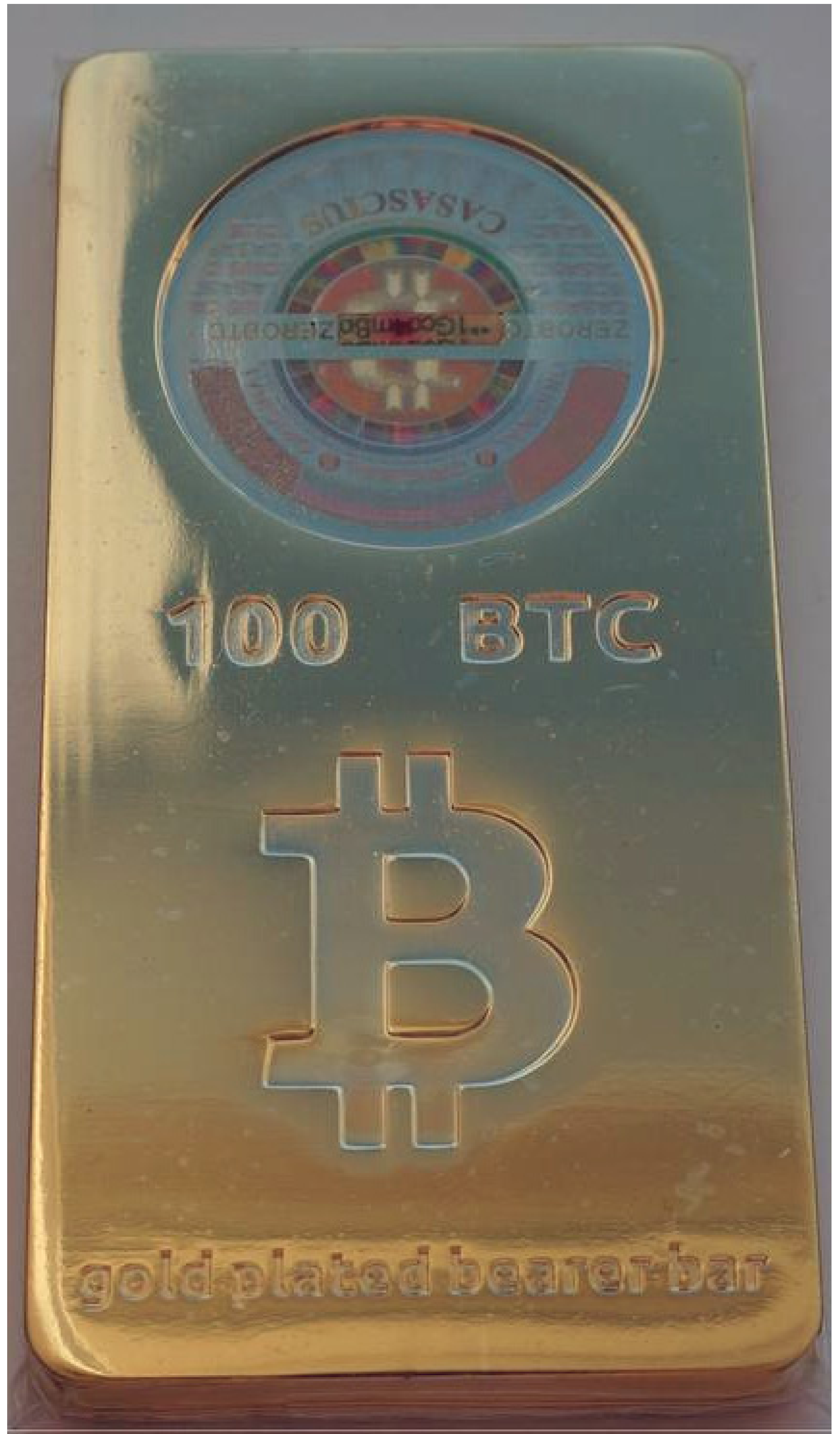


# Casascius Physical Bitcoin

Series 2 100 BTC 2011 'Unfunded Bar'

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	100 BTC
<b>Type</b>	UF
<b>Mintage</b>	8
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA

These 'Non-2FA' 100 BTC bars are limited to a mintage of only eight pieces, none of which have been funded. To uniquely identify them as unfunded bars, these bars come with a 'ZERO BTC' etched hologram which is intentionally placed upside down. Additionally a small red dot was placed by the first-bits to further differentiate the hologram.

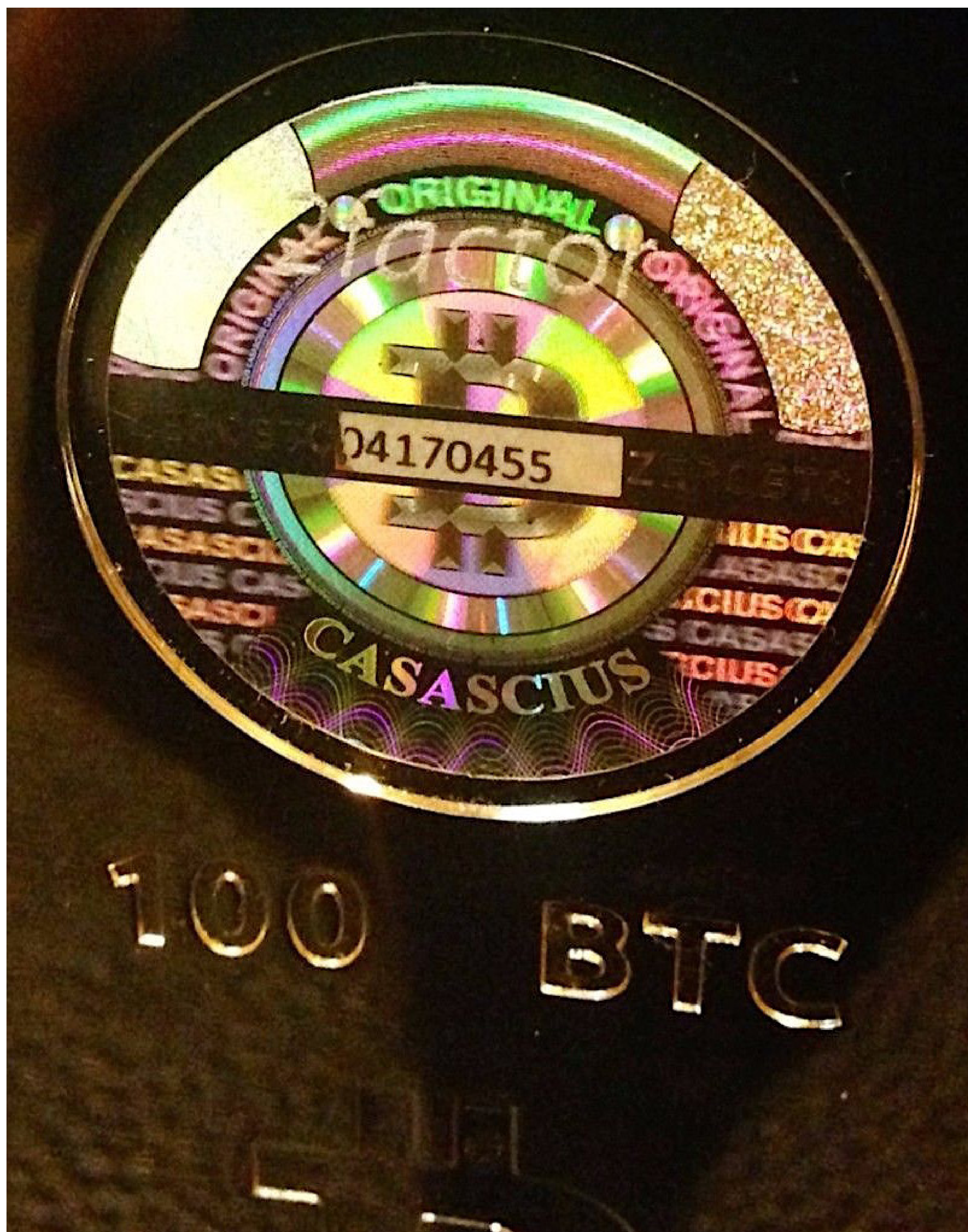




# Casascius Physical Bitcoin

## Series 2 100 BTC 2011 '2FA Unfunded Bar'

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	100 BTC
<b>Type</b>	UF
<b>Mintage</b>	4
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA



These bars were created from 100 BTC bars that were not funded or sold.

In order for Mr. Caldwell to confidently sell unfunded bars that were stamped with '100 BTC', he came up with the idea to add a laser-engraved 'ZERO BTC' directly onto the hologram to make it clear that the intact hologram was not interpreted to mean that the bars contained 100 BTC. Only four 2FA 100 BTC bars were made, none of which were funded at the time of purchase. In addition to the 'ZERO BTC' engraving, '2factor' is also engraved onto the upper half of the hologram.

These four bars are some of the rarest Casascius Bitcoin-denominated items with the exception of the unique Prototype 1,000 BTC Gold Coin, two 500 BTC Bars, and unique 1,000 BTC 2FA Unfunded Bar.



# Casascius Physical Bitcoin

## Series 1 500 BTC 2011 Bar

**Manufacturer:** Casascius

**Year:** 2011

**Denomination:** 500 BTC

**Type:** PF

Load Year	Total	Unopened
2011	1	1
2012	1	0
2013		
2014		
<b>Total</b>	<b>2</b>	<b>1</b>

**Material:** Gold plated alloy

**Diameter:** 80 x 40 mm

**Thickness:** 6 mm

**Weight:** 118 g (in wrap)

**Country:** USA



Considering that only one of these bars remain in an un-redeemed state, it is possible that it will fetch the highest amount over face value compared to any other Casascius item if it is ever sold.

Unlike the normal series 1 first-bits that are printed on the hologram with an ink-jet printer, this bar has them added on with a laser to ensure that the first-bits cannot wear off or be erased. In addition, there are two laser engraved '500 BTC' markings on the hologram, with the same marking appearing in ink below the hologram on the bar itself.



Image Credits (clockwise): Steven Steiner (all)



# Casascius Physical Bitcoin

## Series 1 1,000 BTC 2011 Bar

**Manufacturer:** Casascius  
**Year:** 2011  
**Denomination:** 1,000 BTC  
**Type:** PF

Load Year	Total	Unopened
2011	12	2
2012	4	1
2013		
2014		
<b>Total</b>	<b>16</b>	<b>3</b>

**Material:** Gold plated alloy  
**Diameter:** 80 x 40 mm  
**Thickness:** 6 mm  
**Weight:** 118 g (in wrap)  
**Country:** USA



With less than 20 percent of the bars left un-redeemed, this bar is among the most elusive and valuable of the Casascius bars. '1000 BTC' and 'One Thousand Bitcoins' is laser printed on the bar (in the same manner as on the 500 BTC bar), instead of stamped like on the 100 BTC versions.

In February 2014, Casascius sold a redeemed bar on eBay for 3,850 USD, with all proceeds going to the Electronic Frontier Foundation.

The lower image is actually of an unfunded bar, but it demonstrates detail as there are few available photos of funded 1,000 BTC bars.



Image Credits (clockwise): Casascius, Bitcointalk.org user 'Bitguy101'



# Casascius Physical Bitcoin

Series 2 1,000 BTC 2011 '2FA Unfunded Bar'

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	1,000 BTC
<b>Type</b>	UF
<b>Mintage</b>	1
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA



The 2FA 1,000 BTC bar is one of a kind. It has 'ZERO BTC' engraved on to the hologram. '2factor' is also engraved on to the hologram. It is a rarer counterpart to the series 2 100 BTC '2FA' bar.



# Casascius Physical Bitcoin

## Series 2 2011 'Storage Bar'

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	BTC
<b>Type</b>	UF
<b>Mintage</b>	
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA

These bars were the first 'empty' item released by Casascius. They function like any physical Casascius coin in that bitcoin can be sent to it using the first-bits, but redeemed only by removing the hologram.





# Casascius Physical Bitcoin

## Series 2 2011 '2FA Storage Bar'



<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	BTC
<b>Type</b>	UF
<b>Mintage</b>	
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA

The 2-Factor Storage Bar uses complex two factor authentication to access the stored BTC value once it is sent to the bar. These bars have their public address laser printed onto them, as well as 'casascius.com/2factor' which explains how the bars work.

In order to redeem the bar, one must not only tear the hologram to retrieve the private key, but combine it with another code provided at purchase. If a 2-Factor bar is sold, the seller will have the other part of the code, but is not able to access the funds as long as the hologram is intact.

For an unknown reason, all the first-bits appear to be intentionally obscured by black pen markings.



# Casascius Physical Bitcoin

## 10,000 LTC 2011 Bar



## Acrylic LTC 2011



The most mysterious Casascius product is the 10,000 LTC bar, of which virtually nothing is known. The only available clue is this photo, which does nothing more than confirm that Casascius once produced a bar with ‘10000 LTC | \*One Thousand Litecoins\*’ written across it in the same format as for other high-denomination bars. It is not known how many were produced or if any were funded or sold.

The most ‘odd’ Casascius creation is the acrylic Litecoin round. They consist of acrylic ‘rounds’ laser-engraved with the Litecoin ‘L’ logo. It is not known how many exist, but the number is not likely to be above two dozen. Unlike all other coins and bars, these are made of transparent acrylic. The pictured rounds were given to CharlieLee along with a 100,000 LTC bar. Charlie Lee is an influential figure in the crypto-currency space, having been the creator of Litecoin.

10,000 LTC Bar

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	10,000 LTC
<b>Type</b>	
<b>Mintage</b>	
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA

Acrylic LTC round

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	LTC
<b>Type</b>	Round
<b>Mintage</b>	<50
<b>Material</b>	Acrylic
<b>Diameter</b>	
<b>Thickness</b>	
<b>Weight</b>	
<b>Country</b>	USA



# Casascius Physical Bitcoin

## Series 1 100,000 LTC 2011 Bar

<b>Manuf.</b>	Casascius
<b>Year</b>	2011
<b>Denom.</b>	100,000 LTC
<b>Type</b>	PF
<b>Mintage</b>	1
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	80 x 40 mm
<b>Thickness</b>	6 mm
<b>Weight</b>	118 g (in wrap)
<b>Country</b>	USA

The Litecoin bar is one of a kind and was created specially for Charlie Lee, the creator of Litecoin. The loaded value '100,000 LTC' is laser-printed below the series 1 hologram. This is the only coin or bar that Casascius is known to have funded with a crypto-currency other than bitcoin.

Below: close-up of an series 1 hologram



Image Credits: Charlie Lee, Bitcointalk.org user 'etotheipi'



# Casascius Physical Bitcoin

## St. Petersburg Bitcoin Bowl Coin



<b>Manuf.</b>	Casascius
<b>Year</b>	2014
<b>Denom.</b>	BTC
<b>Type</b>	Round
<b>Mintage</b>	2,000*
<b>Material</b>	.999 Silver
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	USA

\* 2,000 were minted. Only 850 were put into circulation, and the remainder were melted down.

To much surprise, this coin was announced on December 23rd, 2014 as a commemorative coin for the St. Petersburg Bitcoin Bowl, a Florida college football championship sponsored by BitPay which is a leading Bitcoin payment processor. One of the coins was used for the coin toss at the game's kickoff.

“Adorned with gold plating on the polished rim, the Bitcoin B, and the bowl logo, this is the only coin to be released by Casascius in the 2014 calendar year”<sup>1</sup>.

They were offered for sale online at 100 USD each.



Image Credits (clockwise): Bitcointalk.org user 'bitcoininformation', Took Groth

1. “2014 Casascius St. Petersburg Bowl Bitcoin Coin” Link: <https://bitcointalk.org/index.php?topic=903503.0>



Elias Ahonen

**Some Additional Content**  
from the  
**Encyclopedia of Physical Bitcoins**  
and **Crypto-Currencies**

To read ALL of the content in the *Encyclopedia of Physical Bitcoins and Crypto-Currencies*, purchase your copy at [www.coinfirm.org](http://www.coinfirm.org) or a retailer like [Amazon](https://www.amazon.com) today!

ENCYCLOPEDIA  
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CRYPTO-CURRENCIES



ELIAS AHONEN  
FOREWORD BY  
MATTHEW J. RIPPON PHD  
EDITED BY  
HOWARD KESSELMAN



# Alitin Mint

## Adam Smith Limited 1st Edition



<b>Manuf.</b>	Alitin Mint
<b>Year</b>	2013
<b>Denom.</b>	2 BTC
<b>Type</b>	PF
<b>Mintage</b>	600
<b>Material</b>	.999 Silver
<b>Diameter</b>	44.45 mm
<b>Thickness</b>	5 mm
<b>Weight</b>	2 ozt
<b>Country</b>	USA

Alitin's first coin represents Adam Smith, whose "revolutionary philosophies have permeated monetary policy throughout the industrialized world. As bitcoin enthusiasts, all of us appreciate the value of the free market system, particularly as it pertains to commodity and currency trade. So for these reasons, we are proud to introduce our inaugural coin".<sup>1</sup> The first funded physical Bitcoin (in a coin format) without a hologram of any kind, it is also notable for being the first coin to be funded with 2 BTC as opposed to 1, 3, or 5.



Image Credits (clockwise): Howard Kesselman (all)

1. "Coins" Link: <http://www.alitinmint.com/Coins>



# Anarcoins

## Goxxed For the Last Time Silver



**Manufacturer:** Anarcoins

**Year:** 2014

**Denomination:** BTC

**Type:** Round

Version	Mintage
Normal	500
Anniversary	3
<b>TOTAL</b>	<b>503</b>

**Material:** .999 Silver

**Diameter:** 39 mm

**Thickness:** 2.7 mm

**Weight:** 1 ozt

**Country:** UK

This is a round to commiserate (not to commemorate) the infamous collapse of the Mt. Gox Bitcoin exchange. In the early days of trading when Mt. Gox was the most popular exchange, users referred to the suffering of trading losses or bitcoin value decreases seemingly caused by the faulty operation of the exchange as being 'Goxxed'. With the failure of the exchange, all those who lost their balances were essentially 'Goxxed' for the last time. The front of the coin features an image of Mark Karpeles (the owner of the exchange) and a BTC price chart showing the rise and fall of BTC value in December 2013.



Image Credits (clockwise): Elias Ahonen, Anarcoins



# Anonymous Mint

## Anonymous



<b>Manuf.</b>	Anonymous Mint
<b>Year</b>	
<b>Denom.</b>	BTC
<b>Type</b>	Round
<b>Mintage</b>	
<b>Material</b>	.999 Copper
<b>Diameter</b>	
<b>Thickness</b>	
<b>Weight</b>	1 oz
<b>Country</b>	USA

This third and final round in the series features a representation of the 'Anonymous' logo. Anonymous is an infamous Internet 'organization' loosely composed of various activist groups and hackers, some of them colloquially known as 'hacktivists'. The organization is based on the idea of anonymity, and anyone can essentially become 'Anonymous' by participating in its actions. With no leadership structure, Anonymous is de-centralized and operates on a peer-to-peer basis in the same way as Bitcoin. In addition to this similarity, both are associated with concepts of online anonymity (or more accurately, pseudonymity), and even actions such as hacking. Due to these similarities and the fact that they have been in the public radar at approximately the same time, some have erroneously associated Anonymous directly with Bitcoin. While it is likely that some Anonymous participants are Bitcoin users, there is no real connection between the two, as evidenced by the fact that the Wikipedia page for Anonymous does not even mention Bitcoin (at the time of writing). As such, the 'Anonymous' design has no real relevance to Bitcoin, though many will recognize it along with Bitcoin as a 'force' that cannot be ignored in the current digital realm.

Image Credits (clockwise): Copperhead Bullion, Elias Ahonen



# Antaiui

## Silver WorldCoin



<b>Manuf.</b>	Antaiui
<b>Year</b>	2013
<b>Denom.</b>	5 WDC
<b>Type</b>	PF
<b>Mintage</b>	500
<b>Material</b>	.999 Silver
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	

Antaiui was created by Nathan Gudmunson, a PHP developer who was head of development (and chair of the board) for Worldcoin. Worldcoin is an alternative crypto-currency which once had a very active community base and a market cap peak of nearly 24 million USD in late 2013. These coins were produced at the time of Worldcoin's peak value, which has fallen from about 90 cents (USD) to less 1 percent of that.

Like many alternative crypto-currencies, Worldcoin was an attempt to innovate on Bitcoin to successfully launch a new, stable, and global monetary system. While most attempts at such a lofty goal are likely to be unsuccessful, the innovations that are taking place are no doubt setting the stage for something even better in the future. Coins like this are perhaps the only lasting physical evidence of the long process of technological and social progress which may one day transform the world and society we live in with a new concept of money and all its unknown consequences.

The front features the Worldcoin logo along with '5 WDC', with which it is pre-funded. The backside has a custom hologram covering the entire surface.

Image Credits (clockwise): Howard Kesselman (all)





## Bitcoin Nerd (and The Bitcoin Museum)

‘The Bitcoin Museum’ is an online museum run by Andrew Dobbins, an early collector of bitcoin memorabilia and notably physical Bitcoins. Though he purchased many items himself, The Bitcoin Museum has also received many donations from the creators of physical coins and other Bitcoin items.

Inspired by the 1 gram silver rounds made by MJB Monetary Metals, he created two small silver coins to commemorate important days in the history of Bitcoin, using ‘Bitcoin Nerd’ as a personal brand. Though the first series sold well, the second version had difficulty selling out the full 1,000 mintage.

In June 2014, Andrew’s computer was hacked where 14 BTC was stolen, which included all proceeds from his sales of Bitcoin Nerd items. Because the funds were about to be used to pay for an upcoming wedding and honeymoon, the loss amounted to a personal tragedy. Without other avenues to pay the remaining costs, he appealed to the [Bitcointalk.org](http://Bitcointalk.org) community for help, and initiated an auction of all physical Bitcoins and memorabilia that he owned and not been donated to him. Since this auction had numerous rare coins that are rarely offered for sale, it generated great interest amongst collectors. Close to the end of the auction, a member of the community offered Andrew an interest-free 10 BTC loan. This was sufficient to cancel the desperate auction, and many other members of the forum offered loans and even donations which were enough to cover the entire loss. As promised, Mr. Dobbins repaid all loans in full. Though the Bitcoin community can often be harsh, this has been a wonderful example of many individuals coming together to help someone who has long been involved with Bitcoin and contributed to the community.



Left: the ‘Bitcoin Nerd’ (top), v2 silver rounds (bottom)

Image Credits (clockwise): Bitcoin Nerd (all)



# Bitcoin Nerd

## The 10,000 Bitcoin Pizza



<b>Manuf.</b>	Bitcoin Nerd
<b>Year</b>	2013
<b>Denom.</b>	BTC
<b>Type</b>	Round
<b>Mintage</b>	1,000
<b>Material</b>	.999 Silver
<b>Diameter</b>	15 mm
<b>Thickness</b>	0.75 mm
<b>Weight</b>	1 g
<b>Country</b>	Australia

Launched after a successful sale of the 'Genesis Block' coins, the 'Bitcoin Pizza' coin memorializes another day in Bitcoin history. On May 22nd, 2010 (16th month of BTC existence), the first ever purchase using bitcoin was made. Laszlo Hanyecz traded 10,000 BTC which he had mined for two pizzas, which the 'buyer' of the BTC placed an order to have delivered to his door. This transaction was incredibly significant, because it was the first time that BTC was demonstrated to have real-world value. The bitcoin address on the back is that into which the BTC was sent.



Image Credits (clockwise): Elias Ahonen (all)



# Coinographic

## 25 LTC Limited Edition Coin



<b>Manuf.</b>	Coinographic
<b>Year</b>	2014
<b>Denom.</b>	25 LTC
<b>Type</b>	PF
<b>Mintage</b>	500*
<b>Material</b>	.999 Silver
<b>Diameter</b>	50 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	2 ozt
<b>Country</b>	UK

\*It is estimated that only 100 coins were minted and 50 of those were funded.

The bull on this coin conveys a bullish (positive) outlook for Litecoin. The backside (and the nose-ring of the bull) features segments of chain, which represents the blockchain upon which Litecoin is based. The hologram is of a different design, with a circuit board outer pattern referring to technology and an inner Greco-Roman style pillared structure to indicate security. This coin is the first ever to fall victim to an alleged theft of contained value by the creator, to which all current Pre-Funded coins are ultimately vulnerable. After the 'situation', many of these coins were redeemed.

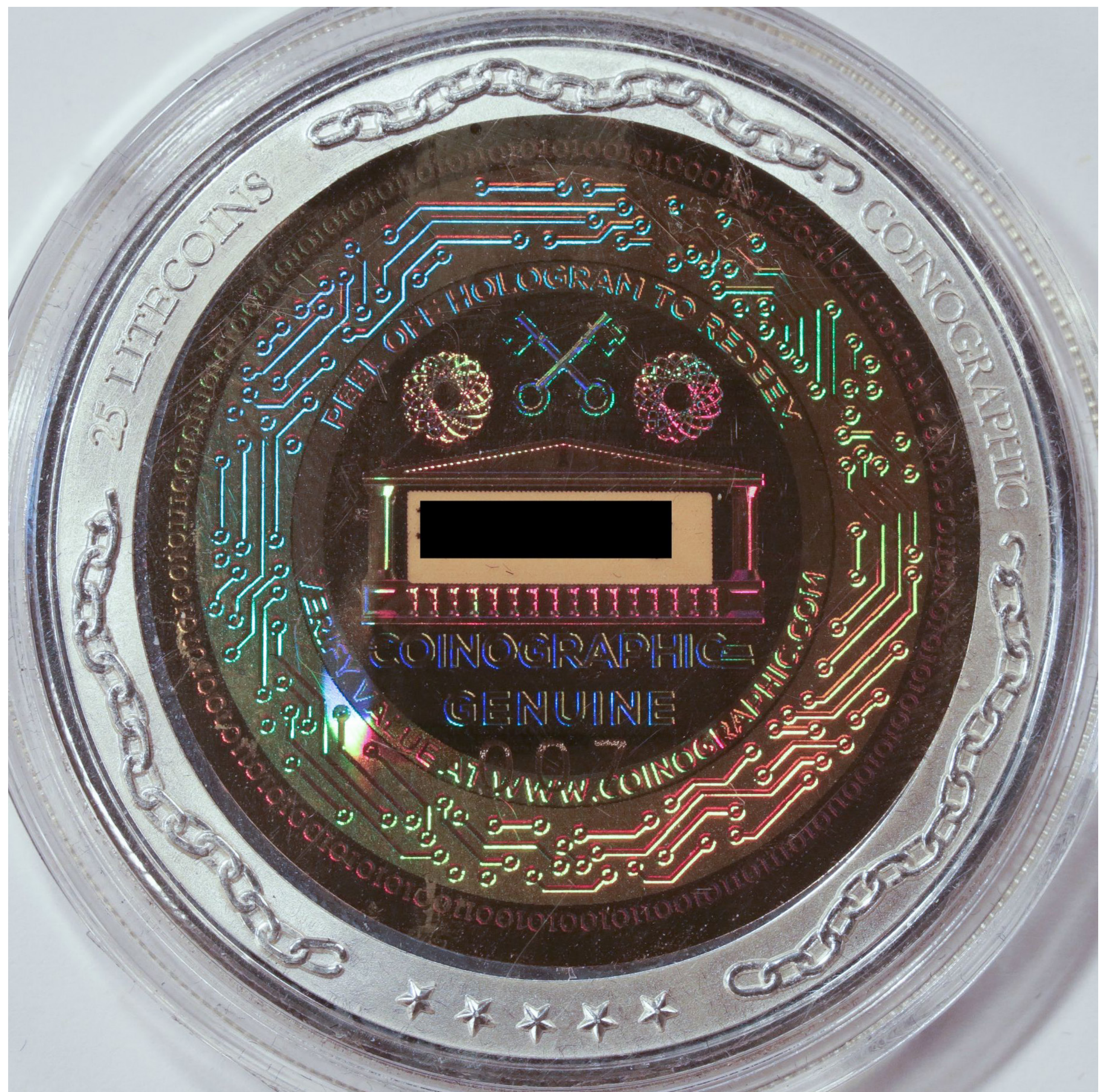


Image Credits (clockwise): Howard Kesselman (all)



# Coldco.in

## Physical Bitcoin Cold Storage Spy Coin



<b>Manuf.</b>	Coldco.in
<b>Year</b>	2014
<b>Denom.</b>	1 BTC
<b>Type</b>	UF
<b>Mintage</b>	100
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	20 g
<b>Country</b>	USA

The 'Physical Bitcoin Cold Storage Spy Coin' is unlike any other physical crypto-coin. It is designed to hide a private key, but it has no sticker or hologram nor engraved key. Instead, it actually opens up in a way that a piece of paper or even SD memory card can be put inside the coin thus hidden in plain sight! The 'spy coin' comes from the historical fact that similar hollow coins were used during the Cold War to hide secret messages or even conceal drugs which an agent could use to end their life upon capture. The name 'Cold Coin' refers to 'cold storage', which is the state of crypto-currency being stored in such a way that they are 'offline' and impervious to hacks or accidental computer damage. The front face of the coin consists of a Bitcoin 'B' which is covered in gears, whereas the backside displays several gears that remind one of a mechanical watch. All 100 coins are serialized.

The coin's categorization as 'unfunded' is valid since the design is intended to 'secure' a private key, though the lack of any security sticker means that the integrity of the stored private key (i.e., the fact that it has not been opened since being sealed) cannot be guaranteed.



Image Credits (clockwise): Howard Kesselman (2), Coldco.in



# Cripto

## Guldencoin



<b>Manuf.</b>	Cripto
<b>Year</b>	2014
<b>Denom.</b>	5,000 NLG
<b>Type</b>	DIY
<b>Mintage</b>	250
<b>Material</b>	Gold Pl. Alloy
<b>Diameter</b>	44 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	38 g
<b>Country</b>	Netherlands

These coins were produced in conjunction by several members of the Guldencoin development team. Guldencoin is an alternative crypto-currency, which was proclaimed to be the ‘official crypto-currency of the Netherlands’ by its creators. The name ‘Guldencoin’ is derived from the ‘Dutch Guilder’, which was the national currency unit before the introduction of the euro.

The front of the coin is designed to mimic the Dutch 1 Guilder coin (shown on the bottom left). The Guldencoin ‘G’ is presented on the front. The launch date of ‘April 4th 2014’ is displayed prominently, along with the denomination and serial number. The rim of the coin has a diamond cut pattern, giving it a ‘golden’ glimmer. The coins were sold for around 15 EUR each, with the lowest 50 serial numbers going for higher prices. The edge of the coin is engraved with the phrase “Betalen Met Guldencoin”, which translates from Dutch to “Pay With Guldencoin”.

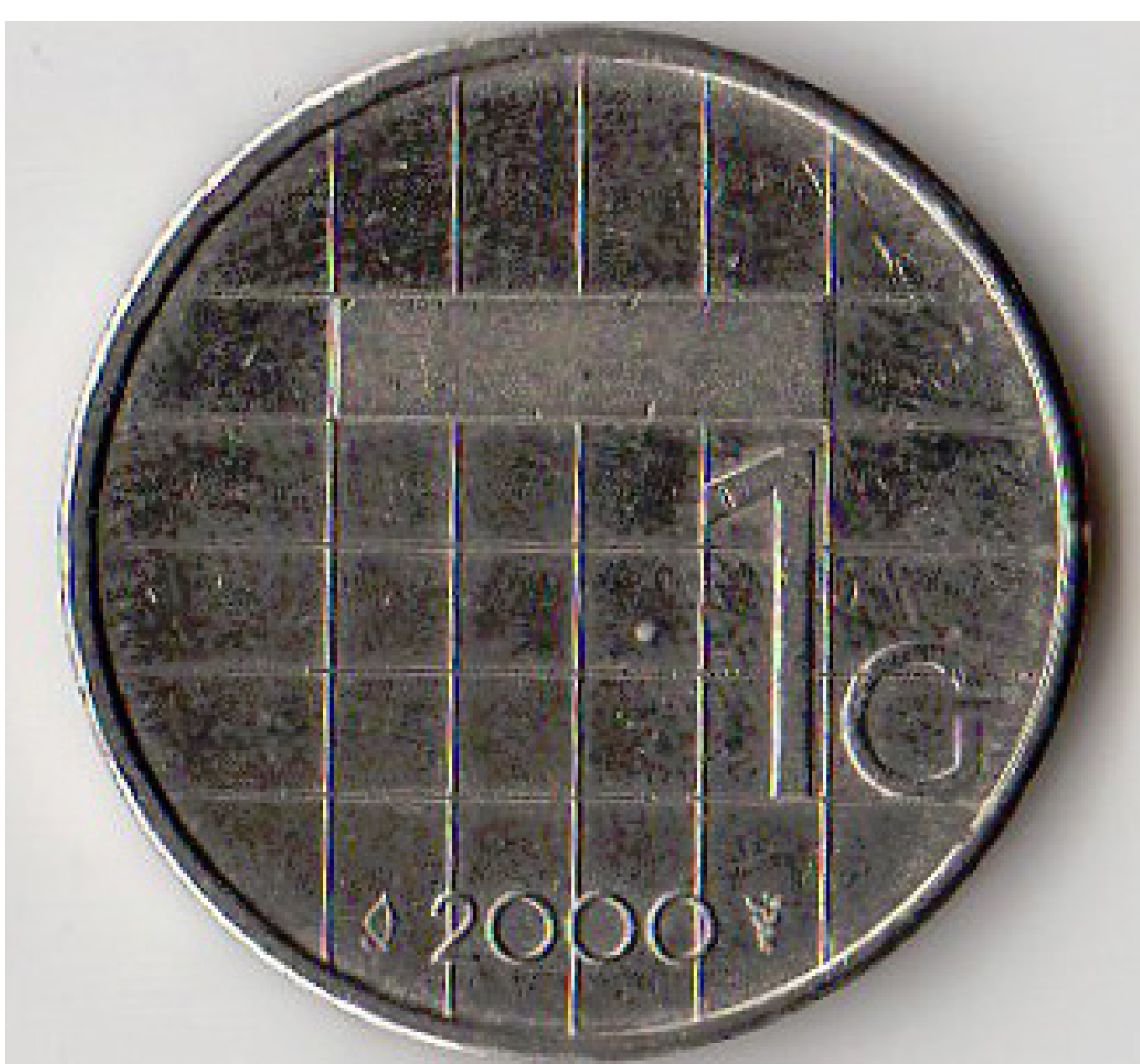


Image Credits (clockwise): Took Groth, Howard Kesselman, Public Domain



# Crypto Emperor

1/2 Troy Oz .999 Fine Gold 1 Million Dogecoin



<b>Manuf.</b>	Crypto Imper.
<b>Year</b>	2015
<b>Denom.</b>	1,000,000 DOGE
<b>Type</b>	PF
<b>Mintage</b>	10
<b>Material</b>	.999 Gold
<b>Diameter</b>	29.8 mm
<b>Thickness</b>	1.3 mm
<b>Weight</b>	0.5 ozt
<b>Country</b>	Spain



This coin was minted after getting enough pre-orders to cover the cost of production. It is the first ever case of a solid gold coin being minted for an 'alt-coin' (a crypto-currency other than bitcoin).

While it bears a clear resemblance to the original Crypto Emperor DOGE coins, it has been modified so that the dog appears rich in a comical and stereotypical fashion. The coin as a whole is an excellent reflection of the culture around Dogecoin, which often makes light-hearted and humorous claims about dogecoins being worth more than gold and users becoming 'rich doges' one day as a result of their DOGE. This coin could indeed be seen as an extrapolation of the Dogecoin user-base to represent a 'doge' who has made 'such money' and become rich.



Image Credits (clockwise): Crypto Emperor (2), Bcointalk.org user 'gravitate'

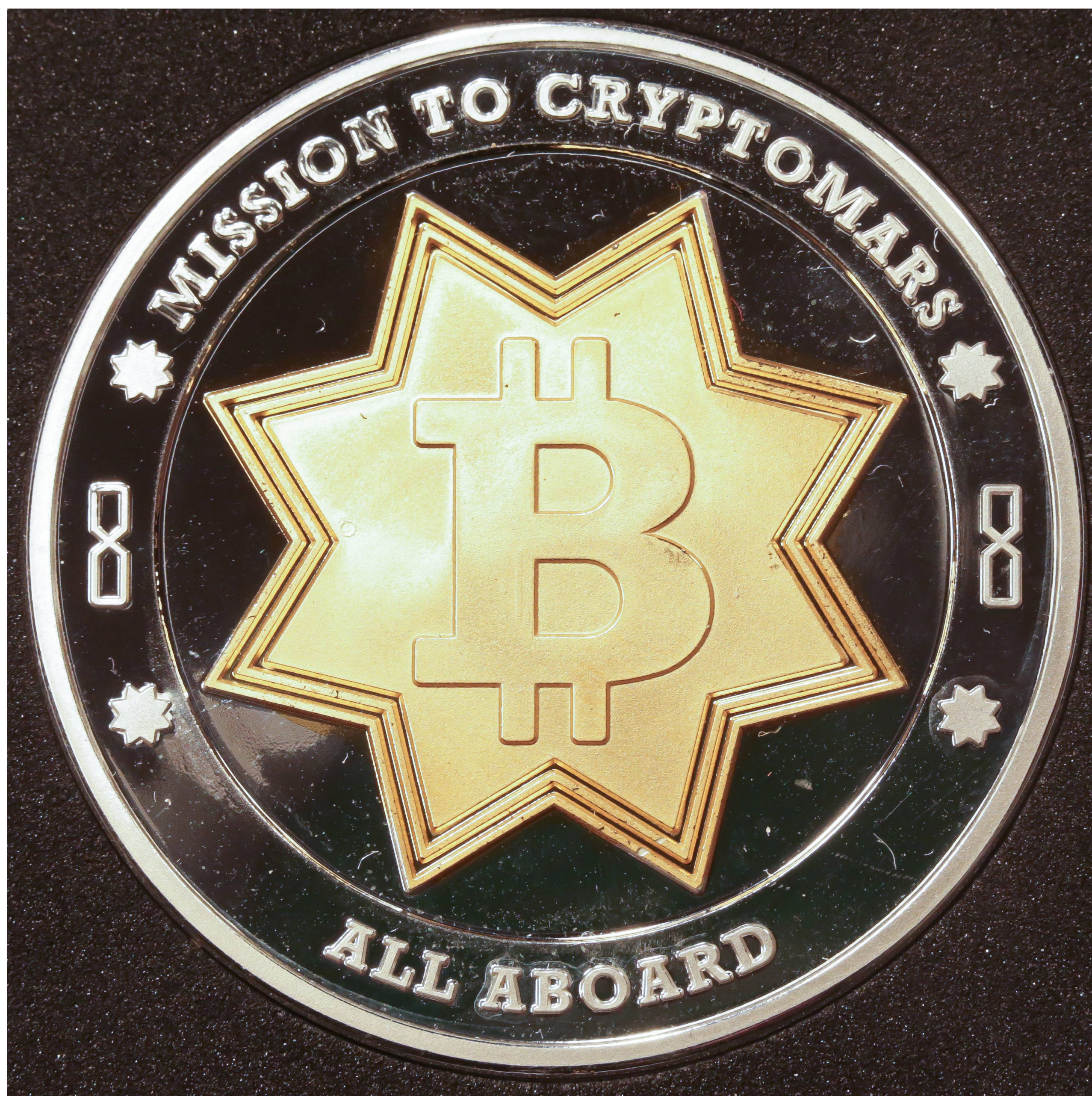






# Cryptonic

## Bitcoin Cryptocoin



**Manufacturer:** Cryptonic

**Year:** 2014

**Denomination:** BTC

**Type:** Round

Version	Mintage
Silver Star	50
Gold Star	107
<b>TOTAL</b>	<b>157</b>

**Material:** Silver Pl. Brass

**Diameter:** 38 mm

**Thickness:** 3 mm

**Weight:** 28.3 g

**Country:** Latvia

This coin comes in all-silver or with gold plating over the 'Bitcoin star'. The back is the same design as other Cryptonic rounds. The front reads 'All Aboard – Mission to Cryptomars'. This 'Cryptomars' is likely a reference to the popular saying 'to the moon', which conveys that crypto-currency will eventually see an astronomical rise in value and relevance. It is probable that the star design on the coin is meant to add to this symbolism. The backside declares 'Cryptocoin Forever', flanked by infinity symbols on the left and right signifying the perpetual nature of crypto-currency.



Image Credits (clockwise): Howard Kesselman (all)



# Denarium

1/10 BTC



<b>Manuf.</b>	Denarium
<b>Year</b>	2015
<b>Denom.</b>	0.1 BTC
<b>Type</b>	PF, UF
<b>Mintage</b>	2,000
<b>Material</b>	Brass
<b>Diameter</b>	28.6 mm
<b>Thickness</b>	1.7 mm
<b>Weight</b>	7.65 g
<b>Country</b>	Finland

The hologram demands attention, as it is nearly identical to Casascius' Series 2 hologram. The only difference is the name of the brand (Denarium instead of Casascius), along with a different center design and 'Authentic' instead of 'Original' written in the upper band. The inspiration by Casascius and emulation is clear when comparing the holograms (see the Casascius hologram on the bottom left). It should be noted that while the hologram window displays the first-bits as expected, the hologram itself is also engraved with a serial number starting with E (for 'Empty' unfunded 'UF') or L (for 'Loaded', which is the equivalent of pre-funded 'PF').



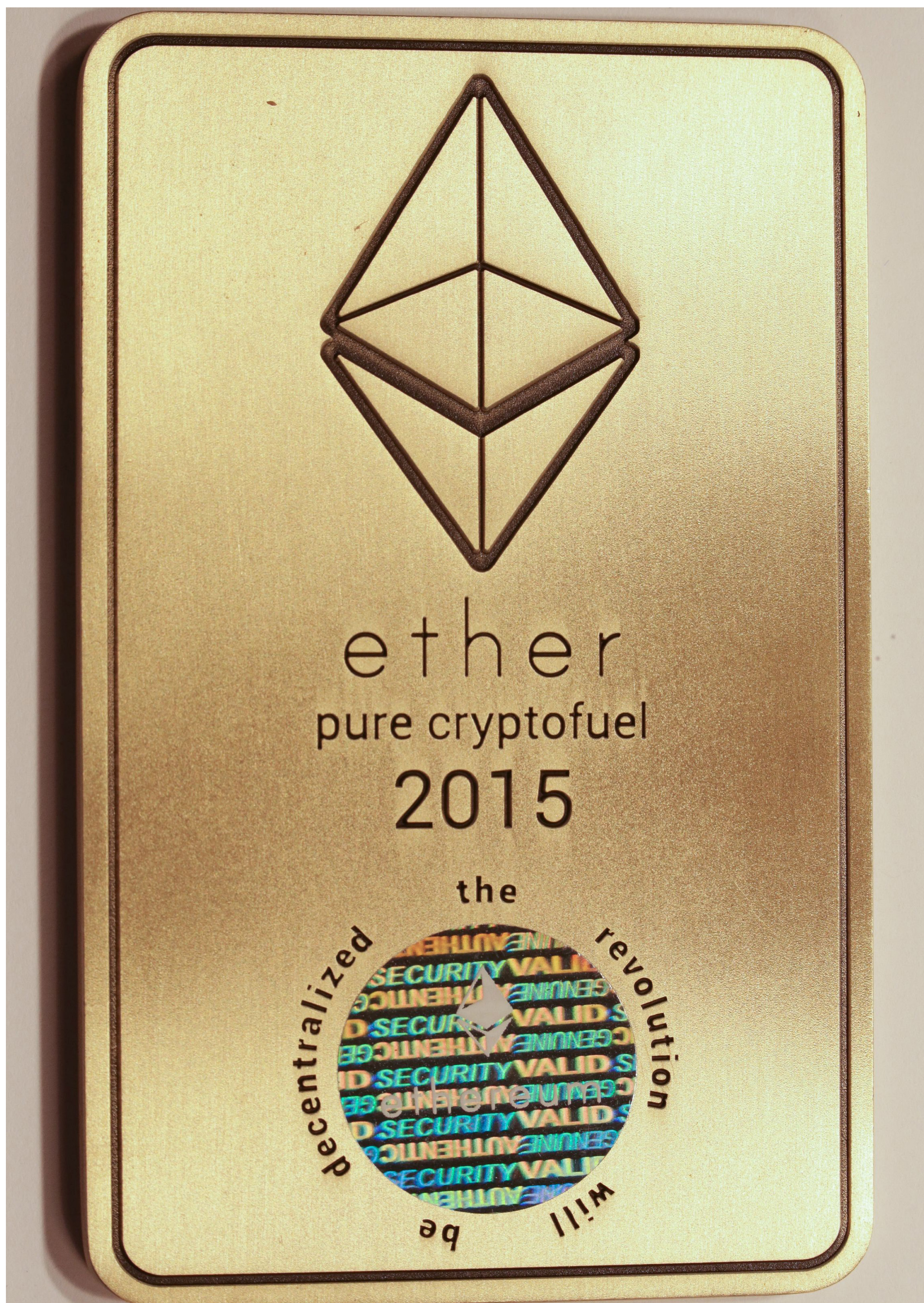
The image on the coin is that of a bull, though it has received some criticism for not being obvious (for example, it has been initially interpreted to be an image of Italy). The bull is a symbol of economic prosperity and the increasing value of financial instruments, which makes it a fitting image to place on an asset such as Bitcoin which the holder expects to rise in value.

Image Credits (clockwise): Howard Kesselman (2), Andrew Dobbins



# Finite By Design

## 5" 'Ethereum Frontier' Ether Bar (Antique Gold)



<b>Manuf.</b>	F*D
<b>Year</b>	2015
<b>Denom.</b>	ETH
<b>Type</b>	DIY
<b>Mintage</b>	100
<b>Material</b>	Antique Gold Pl. Copper & Brass Alloy
<b>Diameter</b>	111 x 57 mm
<b>Thickness</b>	6.35 mm
<b>Weight</b>	192 g
<b>Country</b>	USA

The theme of this design is 'Frontier' which said to be the first of four stages in the launch process of the Ethereum network. The crypto-currency 'Ether' is often imagined as the 'crypto-fuel' of the Ethereum network, which explains why the words 'pure cryptofuel' are written below the Ethereum logo on these bars. The back of the bar displays an outer-space scene where a landing vehicle is about to touch down on a celestial object. The theme of 'crypto fuel' is apparent here (think 'rocket fuel', 'to the moon', etc), and the new world appears to be declared as being the 'Frontier' in large letters.



# Genesis

## Gold Plated (various)



This gold-plated coin is surrounded by the names of twelve crypto-currencies, with the name of each of them etched onto the front. There are also twelve dates on the coin; corresponding to the dates of the ‘Genesis Block’ of each crypto-currency (This refers to the first ‘mined’ block of coins; essentially the ‘launch’ date). Though there are 120 of the identically minted coins, they are sub-divided into twelve distinct categories of ten each. These categories are the different crypto-currencies for which the coin functions as a wallet. Each coin has a private key under a secure hologram, with the public key engraved on the coin itself. This public key (and hidden private key) works only with the crypto-currency whose name is engraved on the front of the coin. Exactly 10 of these coins exist for each of the following crypto-currencies: Bitcoin, Litecoin, Dogecoin, DNotes, Namecoin, Peercoin, Hyper, Coin2, ShadowCash, Reddcoin, Clams, and Darkcoin.

<b>Manuf.</b>	Genesis
<b>Year</b>	2015
<b>Denom.</b>	Various
<b>Type</b>	UF
<b>Mintage</b>	120
<b>Material</b>	Copper / Brass Alloy
<b>Diameter</b>	38 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	27.8 g
<b>Country</b>	USA

Image Credits (clockwise): bitcointalk.org user ‘snarlpill’, Howard Kesselman, bitcointalk.org user ‘snarlpill’



# Infinitem Bitcoin

## Da Vinci 2015 2 Troy Oz Silver Bitcoin



<b>Manuf.</b>	Infinitem Bitcoins
<b>Year</b>	2015
<b>Denom.</b>	BTC
<b>Type</b>	UF, DIY
<b>Mintage</b>	2222
<b>Material</b>	.999 Silver
<b>Diameter</b>	50 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	2 ozt
<b>Country</b>	BVI

This design style is inspired by ancient Roman coins, which often featured carved portrait-like images. Infinitem states “Da Vinci staring forward in deep gaze, contemplating the environment, observing his surroundings, questioning everything”. The backside contains the phrase

“Actus Genio Sunt, Illi in Nulla re Tempus”, which is Latin for “Acts of Genius are Never Lost in Time”. This refers to Bitcoin, with the message being that Bitcoin is a work of genius that will endure long into the future. The hologram replaces first-bits with a QR code. It does not come with any BTC.



Image Credits (clockwise): Howard Kesselman (all)



# Kialara

Kialara is a ‘signature series’ of complex physical Bitcoins created by artist Maxfield Wyatt Mellenbruch. While they consist of a coin with a private key hidden under a hologram, they have little else in common with the conventional physical crypto-currency format. One inherent danger with the hologram system is that it may technically be possible to inject a special chemical underneath the hologram allowing it to be temporarily removed by gentle peeling, leaving no obvious physical sign of doing so. This is no concern for Kialara coins, as the edges of the hologram are rendered inaccessible by a piece of metal bolted with specially treated screws. The head of each screw is drilled smooth to disallow unscrewing, and the bolts are treated with a special adhesive called Loctite RED which makes undoing them impossible unless heated to over 500 degrees Fahrenheit. This means that to access the private key, the hologram must be cut or torn instead of peeled. In addition, there is still an added layer of security: the entire coin is encased in a metal and glass holder, which has no way of being opened without violently smashing the glass. As for the private key, a special coating protects it against damage from any light, water, and gases. A Kialara physical Bitcoin is made to endure for generations. While these pieces are certainly functional wallets, their primary purpose is artistic. Mr. Mellenbruch considers the public and private keys to be a unique ‘medium’ in his art.

With Kialara, Max collaborated with HAVEN, an initiative that builds ‘functioning beehive sculptures’ in urban areas to provide wild honeybees with a safe sanctuary. Donating 10 USD per order to the project, he raised 4,750 USD in just a few months.

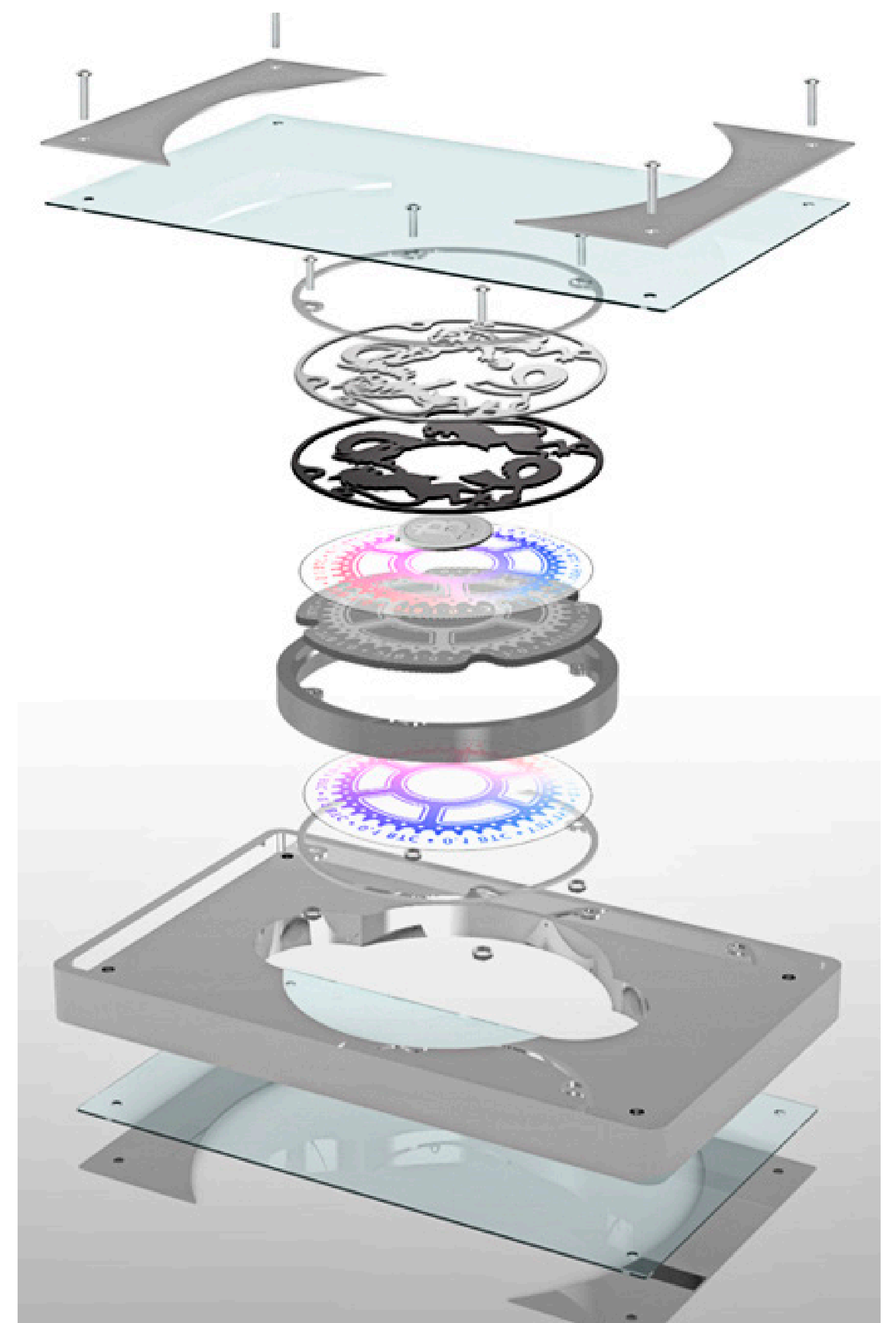


Image Credits (clockwise): Kialara (2), Howard Kesselman



# Kialara

## Current



Following Excavatorelevator 1's format, this piece is artist Julia Tourianski's vision of Bitcoin. It is inspired by Théodore Géricault's *The Raft of the Medusa*, and each animal on the raft symbolizes an aspect of Bitcoin's current situation as follows: Platypus (unexpected), Bat (unprecedented), Giant Squid (doubted), Rats (global), Snow Leopard (hunted), Bear (prodigious), Hyena (stands up to the king), Wolf (misunderstood), Dingo (competitive), Bull (controversial), Albatross (ambitious), Lobster (potentially immortal), and Rhino (uncertainty). With all this on board, Julia remarked that "hopefully the raft will not sink, eh."<sup>1</sup>

Image Credits (clockwise): Howard Kesselman (all)

<b>Manuf.</b>	Kialara
<b>Year</b>	2015
<b>Denom.</b>	BTC
<b>Type</b>	DIY
<b>Mintage</b>	500
<b>Material</b>	.999 Silver
<b>Diameter</b>	93 x 56 mm
<b>Thickness</b>	8 mm
<b>Weight</b>	217 g
<b>Country</b>	USA

1. "Kialara Signature Series ~ Bitcoin Wallet" Link: <https://imgur.com/a/RILhF>



# Lealana

## 25 LTC Silver



**Manufacturer:** Lealana

**Year:** 2013

**Denomination:** 25 LTC

**Type:** PF, BF, UF

Sub-Type	Mintage
N/S Black	0
Black	495
B/F Black	0
Green	5
<b>Total</b>	<b>500</b>

**Material:** .999 Silver

**Diameter:** 39 mm

**Thickness:** 3 mm

**Weight:** 1 ozt

**Country:** USA

This coin can be viewed as a ‘litecoin equivalent’ of the 25 BTC or 1 BTC Silver Casascius coins (front and back of both pictured below). It is virtually identical in form to the two coins in terms of design, mintage, and denomination. The most striking similarity is the edge along the back side, which is composed of 1’s and 0’s spelling “Vires in Numeris” in Hawaiian via binary. Another notable aspect of this coin is the ‘laser rimming’ which followed Casascius’ example of adding an extra security feature to premium coins. A small number of these coins have no laser rim. Due to its rarity, this is perhaps the most coveted Lealana coin. The green-address version is the rarest Lealana coin, of which three are marked buyer funded and two are not. The ‘binary edge’ pattern has since been used in other coins.



Image Credits (clockwise): Howard Kesselman (2)



# Lealana

## Hybrid Coins



**Manufacturer:** Lealana  
**Year Released:** 2015  
**Denomination:** 1 BTC, 5 BTC  
**Type:** BF

Sub-Type	Mintage
1 BTC	1
5 BTC	1
<b>Total</b>	<b>2</b>

**Material:**

Nickel Pl. Brass (5 BTC)

Brass (1 BTC)

**Diameter:** 28.5 mm

**Thickness:** 1.7 mm

**Weight:** 7.4 g

**Country:** USA

These coins consist of redeemed Casascius coins with Lealana holograms affixed. These were auctioned by Lealana and buyers were required to fund them prior to dispatch. Lealana has declared the coins to be unique; no additional hybrids will be made with the same type of Casascius coins. The existence of these coins could be taken to demonstrate the respect Lealana places on Casascius coins, as well as a recognition that collectors of Lealana coins consider both brands to be central to the formation of physical crypto-currency.



Image Credits (clockwise): Lealana (all)



# Microsoul

## Lucky Coin



**Manufacturer:** Microsoul

**Year:** 2016\*

**Denomination:** 0.01 BTC\*\*

**Type:** PF

Version	Mintage
Round 1	10
Round 2	10
Round 3	10
Round 4	10
Round 5	10
<b>TOTAL***</b>	<b>50</b>

**Material:** Brass

**Diameter:** 28.5 mm

**Thickness:** 1.1 mm

**Weight:** 6.2 g

**Country:** UK

\*Both 2013 and 2014 coins used

\*\*10% have 1.01 BTC balance

\*\*\*At time of writing

The Lucky Coin is a very unique and innovative product created by Microsoul using the series three hologram. These coins have a private key, but their public key is not visible. In its place, '#[round number].[coin number] LUCKY' is seen through the window on the custom hologram. The 'game' works as follows: every week, ten buyers purchase a Lucky Coin for 0.15 BTC each. Every coin is funded with 0.01 BTC, but a random one is funded with an additional 1 BTC bringing the total to 1.01 BTC for one of the ten coins. In essence, this coin is a lottery ticket with a twist. What makes this much more than a scratch-and-win card is the unique community aspect. The ten public keys are released publicly, so that everyone knows how many coins in a set have been peeled and if the 1.01 BTC coin is still un-peeled. Often, buyers will announce whether they plan on peeling or not. As more coins in a set are peeled without the prize being found, the value of remaining coins will increase as their probability of containing the prize is higher. This game has drawn lots of collector involvement, encouraging commentary and speculation amongst participants.

Image Credits (clockwise): Elias Ahonen, Howard Kesselman



# MJB Monetary Metals

## Series 1 Silver



<b>Manuf.</b>	MJB Monetary Metals
<b>Year</b>	2011
<b>Denom.</b>	BTC
<b>Type</b>	Round
<b>Mintage</b>	1,000
<b>Material</b>	.999 Silver
<b>Diameter</b>	15 mm
<b>Thickness</b>	0.75 mm
<b>Weight</b>	1 g
<b>Country</b>	UK

This is the first bitcoin themed coin to be produced and sold. Released on June 28th, 2011, these were sold out over a month before the first Casascius coins went on sale. Being sold for 1.50 GBP each with a minimum order of 10, supply ran out in two months. Due to the initial cheapness of these coins, it is likely that many were damaged by mishandling and/or misplaced over the years. As such, the number of these coins in good condition is likely very small, and one coming onto the market is a rare event.





# Nasty Mining

## 1oz .999 Silver Minted Seat



<b>Manuf.</b>	Nasty Mining
<b>Year</b>	2014
<b>Denom.</b>	1 'Seat'
<b>Type</b>	PF
<b>Mintage</b>	500
<b>Material</b>	.999 Silver
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	USA

This coin is the first of its kind in many ways. Though it does not specify a bitcoin balance, it will likely receive allotments of BTC well into the future. As explained in the mint biography, this coin functions not unlike an ownership share to a company into which small dividends are paid and a fundraiser with 50% of the coin's sale price being donated to NastyFans. It's BTC value is therefore ever-increasing, assuming that the pay-outs do not stop. The public key address of the coin is engraved along the rim of the coin. The face of the coin lacks many features that 'physical Bitcoins' generally possess, such as Bitcoin symbols and other imagery alluding to bitcoin (though it does include two images of bitcoin miners). It is simply a logo, which is unusual when compared to other silver Bitcoins.



Image Credits (clockwise): Howard Kesselman (all)



# NOLACOIN

## 1 Bitcoin Token



<b>Manuf.</b>	NOLACOIN
<b>Year</b>	2012
<b>Denom.</b>	1 BTC
<b>Type</b>	Round
<b>Mintage</b>	200
<b>Material</b>	Nickel Pl. Zinc
<b>Diameter</b>	26 mm
<b>Thickness</b>	2.15 mm
<b>Weight</b>	8 g
<b>Country</b>	USA

Though this is listed as a 'round', it was originally intended as a 'coin'. As per the original business plan of New Orleans Bitcoin Exchange (now called NOLACOIN), these coins were meant to function as physical tokens representing real BTC held by the company as if it was a bank. These coins were eventually sold off as rounds as the business venture did not take off as planned, and are undoubtedly an important part of the history of physical crypto-currency. The eight character code engraved on each round serves no practical purpose now, as it was meant to be used in tracking of the BTC-backed coins.

Image Credits (clockwise): Howard Kesselman (all)





# Ravenbit

## Series 2.1 - Node Copper



<b>Manuf.</b>	Ravenbit
<b>Year</b>	2014
<b>Denom.</b>	BTC
<b>Type</b>	DIY
<b>Mintage</b>	Copper
<b>Material</b>	250
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	28.8 g
<b>Country</b>	USA

This 'Node' design symbolizes the Bitcoin network and the various 'nodes' that keep it functioning. Just like on the coin, Bitcoin nodes are interconnected so that the network will not be significantly affected even if several dozen nodes are deactivated. The design features 'nodes' in three sizes. The center of the coin features the traditional 'B' in a simplistic setting, notably with no text on that side of the coin. The words 'Bitcoin' and '2014' are on the outer edges of the back. The coin is minimalist yet highly symbolic, making it attractive to many collectors.

These are serialized DIY coins.

Image Credits (clockwise): Howard Kesselman (all)





# Shibe Mint

## Dogecar Commemorative Edition



<b>Manuf.</b>	Shibe Mint
<b>Year</b>	2014
<b>Denom.</b>	98 DOGE
<b>Type</b>	Round
<b>Mintage</b>	1,098
<b>Material</b>	Copper
<b>Diameter</b>	39 mm
<b>Thickness</b>	2.6 mm
<b>Weight</b>	1 oz
<b>Country</b>	Canada

This copper round commemorates the 'Dogecar' which is among the more momentous achievements of the Dogecoin community to date. In March 2014, dogecoin users on the website Reddit.com raised 67 million DOGE (55,000 USD) to sponsor NASCAR driver Josh Wise for the 2014 'Aaron's 499' race. The race was held on May 4th, 2014 at the Talladega Superspeedway in Alabama, where Wise finished 20th in car #98 which was wrapped in a massive advertisement for Dogecoin. The car was nicknamed the 'Moon Rocket' as a nod to Dogecoin users' common saying that Dogecoin would soon go "to the moon" (massively increase in value), and perhaps even as a tongue-in-cheek expectation that the publicity garnered by the sponsorship would indeed 'rocket' the value of Dogecoin 'to the moon'. Josh Wise himself developed a liking for the Dogecoin community, and continued his partnership with them by rallying users to vote for him in fan-favorite contests and even released a Dogecoin t-shirt to finance further races. In reference to the car number, this round is denominated as '98 Dogecoins' and was even listed as having an original price of 98 USD, though it was on perpetual 'sale' for 10 USD.

Image Credits (clockwise): Shibe Mint, Elias Ahonen



# Silver Shield Collection

## Paradigm Failure



<b>Manuf.</b>	Silver Shield Collection
<b>Year</b>	2014
<b>Denom.</b>	BTC / Various
<b>Type</b>	Round
<b>Mintage</b>	
<b>Material</b>	.999 Silver
<b>Diameter</b>	39.3 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	USA

This round is made by Silver Shield Collection, a company that makes a large number of silver bullion coins and bars. Most of the material created by Silver Shield is based around Libertarian themes. Their designs promote sayings like ‘Don’t tread on me’, the right to bear arms, and mock the US federal monetary system. The criticism aimed at the established financial system is often done with the implication that precious metals such as silver are ‘real’ money as opposed to government issued money.

What makes this Bitcoin themed round truly special is that it is not actually meant to promote Bitcoin in any form. The ‘BitCON’ round is meant to mock the idea of Bitcoin and crypto-currencies, with the implication that they are intangible and therefore worthless (or at least without intrinsic ‘real’ value) just like dollars, euros, and pounds apparently are. The round has a large Bitcoin ‘B’ symbol (which is technically incorrect, as it only has one vertical stroke), inside of which smaller dollar, euro, and pound signs are found. ‘Paradigm Failure’ is superimposed in the center, and the outer rim of the round states ‘You Don’t Own It If You Don’t Hold It’. The divergence in opinions on crypto-currency is most interesting.



# Silver Wallets

## Design 2



<b>Manuf.</b>	Silver Wallets
<b>Year</b>	2014
<b>Denom.</b>	BTC
<b>Type</b>	DIY
<b>Mintage</b>	100
<b>Material</b>	.999 Silver
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	USA

The centrally placed 'B' in this round is surrounded by several currency symbols, suggesting that Bitcoin is superior to the dollar, euro, and yen, as well as silver and gold. The round prominently features a complex mathematical equation; a first for physical cryptocurrencies. The equation is taken from the Bitcoin white paper by Satoshi Nakamoto which laid the foundations for Bitcoin. A '51% attack' is a legitimate concern for Bitcoin, as it is technically possible for someone who controls 51% or more of the total mining power to essentially 'hijack' the blockchain and manipulate it.



Image Credits (clockwise): Elias Ahonen (all)



# Supernet

## 1st Edition Supernet Coin (Silver)



<b>Manuf.</b>	Supernet
<b>Year</b>	2015
<b>Denom.</b>	Various - N/A
<b>Type</b>	Round
<b>Mintage</b>	350
<b>Material</b>	.999 Silver
<b>Diameter</b>	39 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	1 ozt
<b>Country</b>	USA

Supernet is an 'association' or teamwork initiative by the developers of several alternative crypto-currencies to share ideas, and technologies. Several 'alt coins' are part of the association, with seven of them being featured on this round. These are (clockwise from top on the front) Opal, VPNcoin, Boolberry, BitcoinDark, Chancecoin, VeriCoin, and NXT. The Center of the coin features a large 'U', which stands for 'Unity' and is made to resemble a stereotypical crypto-currency symbol. Though the backside seems like it could accommodate a hologram, it is not meant to do so.



Image Credits (clockwise): bitcointalk.org user 'minerjones' (all)



# TGBEX

## One Bitcoin



<b>Manuf.</b>	TGBEX
<b>Year</b>	2014
<b>Denom.</b>	1 BTC
<b>Type</b>	PF
<b>Mintage</b>	499
<b>Material</b>	Silver Pl. Brass
<b>Diameter</b>	43 mm
<b>Thickness</b>	3 mm
<b>Weight</b>	34.7 g
<b>Country</b>	Isle of Man

The TGBEX coins look the same overall, but have different finishes and denominations. They read 'The Global bitcoin Exchange' on the outer front, while the middle features a complete world map in a 'sea' of Bitcoin 'B' symbols. Each coin is serialized. The range is truly remarkable, from 0.5 BTC to 50 BTC. The back hologram features a similar world map, and is the same for each coin.

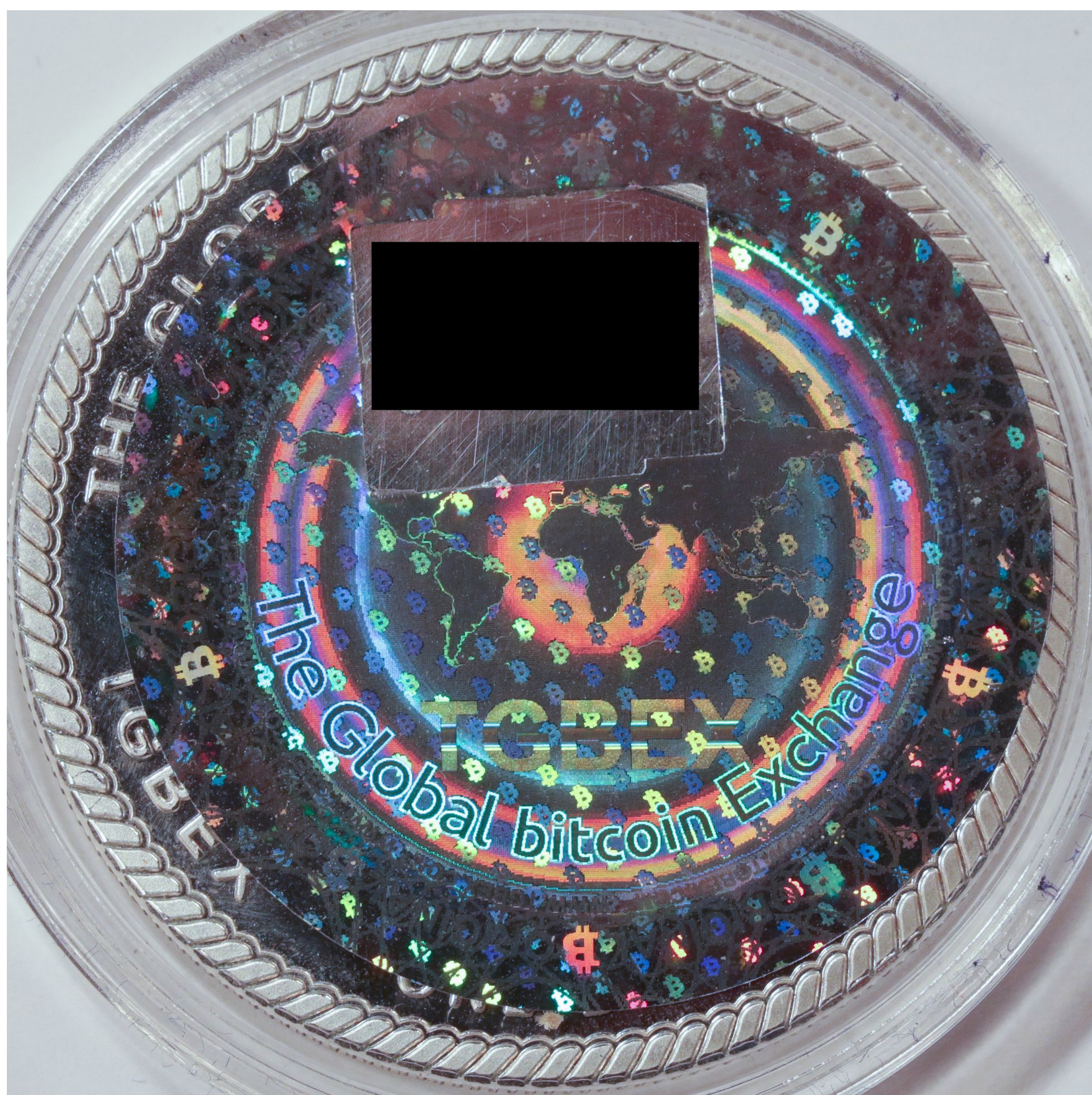


Image Credits (clockwise): TGBEX, Howard Kesselman



# Titan Bitcoin

## Titan One - 1oz Gold



<b>Manuf.</b>	Titan Bitcoin
<b>Year</b>	2014
<b>Denom.</b>	1 BTC
<b>Type</b>	PF
<b>Mintage</b>	1,000*
<b>Material</b>	.999 Gold
<b>Diameter</b>	34 mm
<b>Thickness</b>	
<b>Weight</b>	1 ozt
<b>Country</b>	USA

\*Maximum mintage. Real production number is likely 200 or less

Produced in batches of 100, this is by far the largest mintage for a solid gold physical crypto-coin. For comparison, Casascius minted only a few 1 oz gold coins, and Crypto Emperor minted 10 half ounce coins.

This coin is a testament to the significant amount of funding behind Titan Bitcoin, with each batch costing well in excess of 120,000 USD to produce. Few manufacturers have even reached total sales in excess of that amount.



Image Credits (clockwise): Titan Bitcoin (all)



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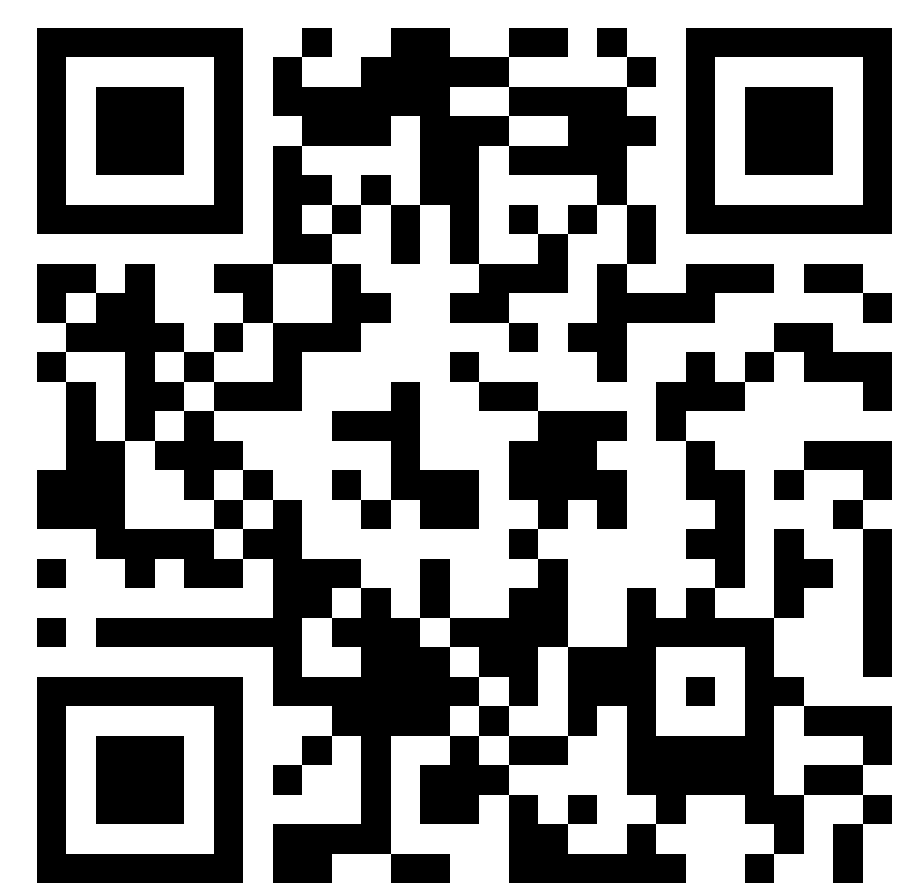
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