CATBOTICA™ 2D CATBOTS WHITE PAPER

Ver 1.4 by FC

INTRODUCTION

CATBOTICA™ is a non-fungible (NFT) collection of a thrilling tale that utilizes hand drawn quality art and perfectly crafted elements of a unique generative set. The CATBOTICA world is an exciting narrative, full of suspense, ancient mysteries, and heartwarming romance of galactic proportions.

The initial generative art collection is stored permanently on the Ethereum blockchain utilizing ERC-721 NFT standards. We are hard at work to create an entire universe revolving around our endearing Catbots and their saga.

In addition to focusing on the art and the artist, we are creating value propositions for all parties, including: collectors; gamers; traders; investors; and artists. The art collection itself will initially serve as the starting point for all the evolutions that future CATBOTICA properties will build on, including true 3D NFTs and metaverse token objects.

The aim of this white paper is to describe policies and the rationale behind the token content, minting system, fees, royalties, and technologies used.

CONTENT

The CATBOTICA 2D Catbot collection will be minted as ERC-721 NFTs. ERC-721 is a free, open standard that describes how to build non-fungible or unique tokens on the Ethereum blockchain. While most tokens are fungible (every token is the same as every other token), ERC-721 tokens are all unique and therefore each individual 2D Catbot will be a unique eternal asset on the Ethereum blockchain. We have chosen ERC-721 because it offers all the features needed by the collection, as well as its ability to be easily integrated into ecosystem infrastructure. Having a common interface for exchange and wallet operators to easily implement makes NFTs that much more valuable to users and token owners.

Each Catbot is made of 20 different properties (attributes or traits) that together form each unique NFT. Each specific combination of attributes is unique to each specific Catbot. Although some Catbots may share some attributes, no two Catbots are exactly the same. Each Catbot will be graphically identifiable as different from the others. The attributes of each Catbot are recorded in the Metadata of the NFT and can be reviewed by anyone after the official reveal date. The trait Metadata for each NFT is randomly generated by the NFTGen system (provided

by Blockchain Foundry Inc.). The Metadata is also used to construct the graphics that make up the image of the Catbot utilizing the hand drawn graphic elements of each attribute variation. The finished Catbot picture is a 24-bit colour 2000 by 2000 pixel image.

The Metadata for each NFT is stored on IPFS and the IPFS location of the metadata for each token is recorded on the Ethereum blockchain. The graphic image for each NFT is also stored using IPFS. The InterPlanetary File System (IPFS) is a protocol and peer-to-peer network for storing and sharing data in a distributed file system. IPFS uses content-addressing to uniquely identify each file in a global namespace connecting all computing devices. This allows the NFTs to give access to the image files uniquely associated with each.

UTILITY

The Catbot NFTs will provide utility both as redeem keys and functional assets. As a redeem key, each Catbot NFT will allow the owner to participate in select promotions, future additional CATBOTICA private sales, and other exclusive events only available to CATBOTICA members.

As a functional asset, each 2D NFT will also allow the owner to mint a corresponding (one and only) 3D Catbot with exactly corresponding attributes. Additional 3D Catbots will be mintable by 2D Catbot owners (requirements will be detailed in the corresponding 3D Catbot white paper to come) with sufficient variation in attributes while maintaining the uniqueness of all NFTs. The intention is for the corresponding 3D Catbot NFT to have its own utility such as a possible Game Token and Metaverse avatar. The utility of 3D Catbots will further be detailed in the corresponding white paper(s) to come.

The 2D Catbot NFTs will also allow the owners (at the time) to earn quantities of future CATBOTICA utility tokens that will be consumed to perform special transactions and unlock further CATBOTICA collections and assets. Owning more Catbots will unlock larger quantities of tokens. The mechanics and policies of these tokens will be detailed in the future white paper about CATNIP Tokens.

As membership tokens, 2D Catbots will enable owners to access exclusive Web3 secured platforms, games and metaverse content that are part of the CATBOTICA road map.

SUPPLY

The complete CATBOTICA 2D NFT Ethereum collection will contain 12,000 unique Catbots. This quantity will never increase. Future collections of other CATBOTICA NFTs may contain more or less assets according to their structure and utility, but the CATBOTICA 2D Catbot NFT collection will never grow. This ensures that the collection’s value will never be diluted or eroded by increases in supply or changes in rarity distributions. Once fully subscribed, the opportunity to participate in this particular collection will only be available to those new owners that purchase the already existing 2D Catbots away from their current companions.

In the unlikely event that any Catbot NFTs allocated for the free redemption program remain un-minted after both the private presale and the public sale minting events, the allocation of those will be minted to the CATBOTICA wallet for storage, and/or distribution to be determined at the sole discretion of the company.

In the unlikely event that any Catbot NFTs allocated for private sale or public sale remain un-minted after both the private presale and the public sale minting events, the remaining allocation of those will be burned.

ALLOCATIONS and MINTING

The total of 12,000 2D Catbot NFT mintings will be allocated across three events.

Event	Period	Supply
Private Sale	Jan. 14, 2022, 6pm EST to Jan. 19, 2022, 4pm EST	2500
Public Sale	Jan. 19, 2022, 6pm EST to Jan. 26, 2022, 6pm EST	9000
Free Minting	Jan. 14, 2022, 6pm EST to Jan. 28, 2022, 6pm EST	500

Events may end earlier if supplies are consumed.

500 Catbots will be allocated to the CATBOTICA Team, its Members, Partners, Collaborators, Promotional Partners and Promotional Winners. These 500 Catbots will be available for minting during both the private presale and public sale minting events. The wallet owners will be required to pay the gas fee for minting their allocations. These units make up the free redemption program.

2,500 Catbots will be available for minting during the private sale event from Jan. 14, 2022, 6pm EST through Jan. 19, 2022, 4pm EST to those wallet owners registered to do so by the CATBOTICA Team. The NFTs will be mintable for 0.08 ETH, plus whatever gas fees are required at the time. Each wallet will be able to mint no more than the quantity they are allocated, and only as long as there is sufficient supply remaining from the quantity allocated for the private sale event.

9,000 Catbots, plus any Catbots unsold from the private sale event (should there be any unsold) will be available for minting during the public sale event from Jan. 19, 2022, 6pm EST through Jan. 26, 2022, 5pm EST or until all available Catbots are minted/sold out. The NFTs will be minted during the public sale according to a Dutch Auction Price Structure.

> A Dutch Auction is a market structure in which the auction begins with an asking price which decreases at prescribed intervals until supply is sold out (as participants accept the

current price and purchase units), or it reaches a predetermined reserve price (the end price).

There is no guarantee that the supply will be sufficient to reach any particular price beyond the initial price of 0.20 ETH. Purchasers minting sooner will avoid the risk of the collection being sold out before they can mint. The price will be set according to the schedule below. Once the supply is consumed, no more 2D Catbots will be made available. Minters will be limited to minting no more than 5 NFTs per transaction, depending on the available supply remaining.

Dutch Auction Structure

Initial Price	0.20 ETH	6:00:00 PM EST	to	6:59:59 PM EST
After 1st Price Drop	0.18 ETH	7:00:00 PM EST	to	7:29:59 PM EST
After 2nd Price Drop	0.16 ETH	7:30:00 PM EST	to	7:59:59 PM EST
After 3rd Price Drop	0.14 ETH	8:00:00 PM EST	to	8:29:59 PM EST
After 4th Price Drop	0.12 ETH	8:30:00 PM EST	to	8:59:59 PM EST
After 5th Price Drop	0.10 ETH	9:00:00 PM EST	to	9:29:59 PM EST
After Last Price Drop	0.08 ETH	9:30:00 PM EST	to	END

Dutch Auction may end early before any price drops if supply is consumed.

The minter will also need to provide whatever gas and transaction fees required at the time by their transaction.

The specific variation of the token or tokens a minter provides from any of the three events is entirely random and can not be predetermined or predicted. The Metadata describing the “content” of the NFTs will not be revealed or viewable until the Reveal Date (described and detailed below in the RARITY section). This further ensures that no minter can “game the system” and improve their odds of receiving a particular Catbot variation with each mint transaction. The only way you can improve your odds of getting a rare variation is by minting more NFTs and increasing the possible opportunities to do so.

For more information about variation distribution, see the RARITY section below.

PROVENANCE HASH

Catbot NFTs will include a Provenance Hash in order to guarantee to minters that the variations have not been altered or assigned unfairly between minting and the reveal date. This Hash system is used to hide the Metadata and prove that the attributes will not be changed

post-launch. We believe that implementing the Provenance Hash solution in the Catbot NFTs demonstrates our commitment to fairness and transparency.

> A hash is simply a one-way mathematical conversion of any data to a string, that is extremely difficult, if not impossible, to reverse. (Further information on 256 Hashes.) Think of it as giving a piece of data a unique fingerprint. The Provenance Hash will be generated from the images and the Metadata, which cannot be reverse engineered to reveal the content of either. Post Reveal, it will be provable that the Hash (available from the moment of contract deployment) belongs to the corresponding original image and Metadata.

Catbot variation and allocation to corresponding tokens will not be alterable and will be verifiable via the Provenance Hash of the full collection. We will post the Provenance Hash Data publicly to increase confidence and avoid any potential doubts that the distribution of the NFTs was altered or unfair.

For more independent information about Provenance Hash use in NFTs, read here.

RARITY

All NFTs are by definition unique, but the term “Rarity” is commonly used to compare the rarest traits or attributes of NFTs. Rarity is important in determining the appraisal of most NFTs because value is often attributed to how “rare” its attributes or traits are.

All CATBOTICA 2D Catbots will have the following traits:

ATTRIBUTE	NUMBER OF VARIATIONS
BACKGROUND	22
BASE	30
BACK ATTACHMENT	16
BACK	1
TAIL	20
RIGHT SHOULDER	1
RIGHT PAW	16
TORSO	21
LEGS	97

LEFT SHOULDER	1
HEAD	1
EARS	25
WHISKERS	19
MUZZLE	25
EYES	32
CLOTHING	104
LEFT PAW	16
ACCESSORY	21
HANDHELD	23
HEADGEAR	58

The variation of each trait is randomly selected for each Catbot by a random number generator (learn more about random number generators here). **Not all variations are equally common, and so some trait variations are rarer than others.** Also note that some combinations are algorithmically rejected by the generation rules that exclude combinations where traits do not work together (ex. Catbot with drill hands can not hold a sword). Some traits such as Head, Shoulders, and Back have only one variation and therefore are common to all 2D Catbots.

Using the Product Rule:

> If there are n(A) ways to do A and n(B) ways to do B, then the number of ways to do A and B is n(A) × n(B). This is true if the number of ways of doing A and B are independent; the number of choices for doing B is the same regardless of which choice you made for A.
>
> **Therefore, the total number of unique possible combinations of traits (ignoring exclusion rules of the generation system) is the product of the number of variations of all traits.**

`22*30*16*20*16*21*97*25*19*25*32*104*16*21*23*58 =` **`1.21932E+23`**

This is a really large number, and much larger than the modest supply of 12,000 Catbots. In addition, the generation system ensures that no matter how unlikely it may be, no two Catbots will have the same combination of traits.

We will publish an official report of the actual distribution of attributes in the NFT collection after the official Reveal Event.

REVEAL EVENT

Within 24 hours after the close of the public sale event (this may fluctuate depending on when, and if, it sells out), we will announce the Reveal Event that will occur within the following 24 hours from then (no more than 48 hours after the close of the public sale event). This will be announced on the CATBOTICA Discord and CATBOTICA Twitter channel.

The Reveal Event will mark the moment that each NFTs Image and Metadata will be available and will divulge the traits for each Catbot.

Minted Catbots may be sold on NFT marketplaces before the Reveal Event, but without the benefit of knowing what the Metadata for each will be.

Read about how to view Metadata here.

ROYALTY

NFT royalties give the designated party a percentage of the sale price each time an NFT is sold on a marketplace. NFT royalty payments are perpetual and are executed by smart contracts (or in some cases, the marketplace) automatically. With most marketplaces, the author can choose the royalty percentage. For example, 5-10% is considered a standard royalty.

CATBOTICA 2D Catbots have a 7.5% Royalty that is collected whenever the NFT is sold. The Royalties will be used, including but not limited to, financing continued CATBOTICA content development for future complimentary collections, metaverse development (detailed in the corresponding white paper to come), promotions, redemption rewards, and to compensate the partners, and contributors of art, expertise and services that made the NFT collection possible, at the sole discretion of Genesis Arc Inc. Marketplaces may collect additional royalties or transaction fees to facilitate sales and transfers above and beyond the Royalty designated.

SMART CONTRACT LINK

Here is the smart contract:
https://etherscan.io/address/0x25e5e2b4b8f11c32cdd48c2fb394fbda9a2861f7

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