

Hero Galaxy Whitepaper 2.0

Website - <https://herogalaxy.io>

Discord - <https://discord.gg/yNKBC7TkZx>

Twitter - <https://twitter.com/HeroGalaxyNFT>

Introduction

The Hero Galaxy is a **Play-to-Earn** metaverse of games and challenges, hosted on various [NFT Worlds](#) called **Battle Planets**, populated by **Heroes** (5,555 NFT Avatars), and playable in Minecraft.

The Hero Galaxy was created with a few objectives in mind:

1. Give Hero Galaxy NFT holders incredible and enjoyable game experiences.
2. Reward Hero Galaxy NFT holders with reliable mechanisms to earn cryptocurrency, and increase the value of their NFTs by playing said incredible games.
3. Provide Hero Galaxy NFT holders a voice in further game development & community activities via a DAO system, and a WarChest where game proceeds will be allocated.
4. Give NFT holders a span of control over their NFT's rarity beyond OpenSea floor prices and lucky mints.
5. Foster a welcoming and wealthy game community.
6. Act as a bridge between all traditional gamers and Web3, by reducing friction wherever possible.
7. Give everyone with an internet connection the opportunity to make money playing the games they love.
8. Wake the world up to the idea that they should be compensated for their attention to the things they love + force all other games after us to offer tradeable digital assets (skins, guns, etc.).

Heroes

Heroes are the native residents of the Hero Galaxy, and act as playable in-game avatars. First edition Heroes are a collection of 5,555 generative ERC-721 NFTs that act as an access-pass to all Battle Planets within the Hero Galaxy. Heroes accrue value and rewards through gameplay within the Hero Galaxy's various "battle-to-earn" games. All except 10 Heroes are composed of randomly generated attributes of variable rarity, and have 5 slots with which to bear various types of weaponry, armor, outfits, and accessories, called Artifacts – won through their glory on the gamefield. Players will be able to view and modify their Heroes in the Armory section of our website.

Play-To-Earn

Heroes will be able to claim [WRLD token](#) (the native token of the NFT Worlds metaverse), and Artifacts, based on their in-game performance, playtime, and a few other (surprise) metrics, on a daily basis. The drop chance for Artifacts, and the rarity of dropped Artifacts will be dependent on players' in-game performance. Hero Galaxy Battle Planets will also host multiple live, timebound, in-game competitions, whose winners will receive grand prizes (riches and glory). Heroes with the best performance will be immortalized both on leaderboards, and in our website's Hall of Heroes.

Artifacts

Artifacts are badges of honor, won on the battlefield. Each Artifact earned through gameplay by Hero NFT holders is a standalone NFT, that can be equipped by Heroes within the Armory. Each Hero will have 5 slots with which to equip various Artifacts. Examples of Artifacts include but are not limited to: Spacesuits, Swords, Armor, Amulets, Wands, Crowns, etc.

Artifact tiers and mint/drop frequency is as follows:

- Common - 50%
- Uncommon - 31%
- Rare - 12%
- Epic - 5.2%
- Legendary - 1.6%
- Cosmic - .19%
- Galactic - .01%

In the Armory section of the Hero Galaxy website, players will be able to: view their Artifacts, equip them to their Heroes, mint new Artifacts, and use the Artifact Combiner to combine 5 equal rarity artifacts into one artifact of a random higher rarity. The purpose of artifacts are to reward players with digital assets for their time in-game, in addition to WRLD Token. In the future we believe all in-game transactions across all games will produce a tradeable digital assets for players who partake - I.E. Fortnite skins sellable on OpenSea.

Battle Planets

The Battle Planets are the battlegrounds that compose the Hero Galaxy, built on various NFT Worlds. All Battle Planets present unique opportunities to prove your honor, and increase the value of your Hero. Your Hero's performance in the Battle Planet will be immortalized on the blockchain such that everyone and their gods might watch over your illustrious victories, and epic defeats.

Plans for Battle Planets ready by end of March include: Colosseum World, Battle Royale World (think Fortnite or PUBG), Cat PVE World (cat-chasing game), FPS World (many first person shooter arenas), Cat Games (squid games), Skyblock.

Battle Planets currently public include

PVE World, which plays host to a game where players attempt to save as many cats as possible. PVE world will contain many obstacles, challenges, areas of explorable terrain, and secrets. Cats, Creepers, and Zombies will spawn randomly and in strategic locations (behind traps, for example). Players will be rewarded for catching as many cats as possible, while avoiding death. There will be secrets and rewards to discover hidden throughout the map.

Colosseum World, which plays host to a player vs. player Colosseum battle game. PVP World will contain an enormous and magnificent Roman-style colosseum, where players will be able to queue solo or in groups to battle one another, or simply spectate the madness. Players will be rewarded for winning battles, and will be able to bet WRLD Token on the outcomes of both their own battles, and spectated battles.

Battle Royale World, which plays host to a battle royale game. Battle Royale World will contain an expansive explorable terrain filled with climbable mountains, caves to hide in, obstacles to avoid, and plenty of strategic advantages to find. Players will queue and be spawned into Battle Royale World 25-50 at a time. The last player left alive in each queue wins, and is rewarded.

7 Additional Battle Planets, the possibilities for which are endless, are being built, and will be announced/playable by the end of April 2022.

Tokenomics + Staking

Hero Galaxy will never create its own ERC-20 token. Tokens whose economies exist inside a single-game and lack liquidity outside those games are volatile and doomed to rug eventually, since player interest in games is seasonal and cyclical. This means that any incremental decline in public interest in a game with a token whose only use-cases exist in said game, results in exponential decline of the game's token. This creates a player unfriendly micro-economy.

Hero Galaxy tackles this issue while still allowing for staking and player rewards by nesting inside the NFT Worlds ecosystem, and leveraging their token- WRLD. This means that liquidity exists to support the Hero Galaxy economy outside our game within the entire NFT Worlds ecosystem, solving for the issues mentioned above and allowing us to ride the wave of all projects building on NFT Worlds.

Hero Galaxy will undertake the following actions to accomplish this:

- We will apply for a P2E grant from NFT Worlds as the first large multi-world project on their ecosystem (50% of WRLD Token supply is reserved for P2E grants).
- We will allow new players who wish to play without owning a Hero to mint a basic game access NFT called a Civilian with WRLD and no gas-fee for a 100 WRLD fee. They can then equip this base NFT with the Artifacts they earn in-game, and sell it on the open-market if they so choose. New players will be able to mint regularly, or with a credit card and no wallet, to reduce the friction of onboarding people who aren't crypto natives into the game. These Heroes will be held in a community wallet tied to our account system, available for withdrawal to a wallet any time. We will then divert 70% of these Civilian minting fees to our player rewards pool.
- We will allow players to list their Heroes for rent in-browser while staked, so that other players can leverage those Heroes' in-game stats, Artifacts, and skins for use in-game - to provide extra rewards to those with incredible Heroes. Staked Heroes who make their Heroes available for rent will be able to set the price for that rent, as well as the % of rewards they claim from those who rent their Heroes.
- We will create our own in-browser Artifact marketplace leveraging ArkDev's gasless WRLD TX methodology, charge a transaction fee lower than OpenSea's, and divert 70% of that transaction fee revenue toward our player rewards pool. Once free players can join and earn a small fraction % of Hero WRLD allotment + Artifact drop chance, the Artifact economy will boom, lots of transactions will be done, and a flywheel that rewards Heroes will be in place.

Estimating Player Rewards

In addition to any NFT Worlds play-to-earn grant received, Hero Galaxy will be routing 70% of Civilian NFT (access-pass) fees + 70% Artifact NFT mint fees + 70% of Artifact marketplace transaction fees (2.5% per) into the player rewards pool as stated above. 60% of the pool is reserved for P2E rewards on the basis of player time in-game + performance, 40% are pooled and distributed across all Heroes that are staked on a minute-by-minute basis, claimable when Heroes un-stake.

EX/ In one day 1000 players mint access-pass + Artifact NFTs for \$100 WRLD each, 1000 artifacts are transacted at an average price of \$200 WRLD in a day. \$44,100 WRLD is pooled for P2E rewards that day, \$29,400 WRLD is distributed across all staked Heroes, directly from Hero Galaxy revenue.

Future rewards are contingent on a few factors - player base size, P2E grant approval/amount, and player engagement. We have rough estimates re: grant amount but know that more P2E grants will be given to worlds that retain a playerbase over time, which we're expecting to.

Baseline projections from just our revenue diverted from projected marketplace tx spend + Civilian NFT mints + artifact minting spend relative to community size here produces 0.5-2.5 WRLD/hr earned staking, ranging from extremely conservative minimum projected engagement (10% daily engagement with Artifact system + 10,000 users), to average. This projection doesn't include a grant at all, and it only supposes a base player amount of 10,000 (13,000 in Discord as of 2/19/2022).

Conservative modeling

Assuming pareto principle applies produces 10% estimated daily player engagement with Artifact system, conservatively projecting to start with = ~1000 Artifacts minted daily at 100 WRLD each, 4X that number transacted daily given those earned through P2E rewards, 25 base pass NFTs minted at 100 WRLD each assuming we're onboarding slowly at first = 85,750 WRLD player rewards pooled daily from our revenue. = .57 WRLD/hour for staked Heroes by the most conservative estimate possible. This estimate presumes there will be no grant, and presumes the player-base will not grow beyond it's current-size, both of which are unlikely.

Hero Staking Mechanics

Hero holders will be able to stake their Heroes in the Armory in exchange for WRLD token. When Heroes are staked, they will be held in a secured community wallet, accruing rewards minute-by-minute through the mechanisms listed above, that are claimable when they are unstaked. When Heroes are unstaked, 10% of their accrued WRLD token will be distributed among all remaining staked Heroes. The intention behind this mechanic is to reward longterm Hero holders who don't always have time to play the game, while allowing non-holders to play without diluting the token supply.

Hero Rentals

While staked, Heroes will be able to make their Heroes available for rent in-browser. This enables other players to leverage those Heroes' in-game stats, Artifacts, and skins for use in-game - to provide extra rewards to those with incredible Heroes. Staked Heroes who make their Heroes available for rent will be able to set the price for that rent, as well as the % of rewards they claim from those who play leveraging their rented Heroes.

Gameplay Rewards

Mentioned in the Battle-to-Earn section, but worth repeating, is the fact that Hero NFT holders will earn rewards for their valiant efforts on various Battle Planets. Players will earn WRLD token and Artifact NFTs of variable rarity simply for playing the game. These rewards will be accrued on the basis of player's play-time, and in-game performance. Moreover, the Hero Galaxy team will use the proceeds of the game to bring value to the player-base by hosting multiple in-game competitions, all carrying lucrative prizes. At the end of each season, players at the top of in-game leaderboards will be rewarded handsomely with piles of WRLD tokens. Additional

rewards we see on the horizon include an NFT that's redeemable for a 3d-printed rendering of your Hero NFT, trading cards, random item airdrops, and more.

The WarChest

25% of Hero Galaxy's mint proceeds will be moved immediately to a community chest wallet called "The WarChest". Hero NFT holders will be able to decide how the funds in that wallet are allocated by creating proposals, and voting on said proposals via a DAO system.

A DAO stands for "Decentralized Autonomous Organization", an organization controlled by its members via a proposal voting system, and governed by rules written into a smart contract on the blockchain. Hero Galaxy's WarChest is controlled by its members and used to improve the Hero Galaxy game experience and reward mechanisms, in a collectively agreed upon manner.

DAO votes may be delegated, but by default will be allocated to each Hero NFT holder's address and transferred to new owner addresses upon a sale, regardless of the existing delegation. 1 Hero NFT = 1 DAO Vote.

Underlying Technology

For our initial mint of 5555 Heroes, we will be leveraging the [ERC-721](#) token standard. For Artifact Minting we will be leveraging [Polygon](#) (a layer 2 scaling solution), in order to minimize gas fees incurred by players. Underlying Hero Galaxy's game infrastructure is the [NFT Worlds Platform](#)

P2E for the World: Roadmap

In a world where advertisers and corporations profit from people's attention to things, it stands to reason that people should be compensated for that attention. Just as DeFi is taking power out of the hands of banks and bringing it to the people, decentralized technology means the same will be done to gaming, and all other points of centralization in our world (YouTube, Spotify, etc.)

Our primary mission to bring play-to-earn gaming to the world will be accomplished as follows:

- We will test the games with our core community who are primarily an NFT audience, to improve them as quickly and efficiently as possible, to prepare for mass-market release, targeted for March 17th, at which point Civilian NFT purchases will go live.
- We will remove friction from regular gamers' experience entering our ecosystem by allowing them to mint their Civilian NFT game access passes with a credit card. These Civilian NFTs will be held in a community wallet, available for transfer at all times. They will also be sellable within our in-game marketplace, no transfer to wallet necessary

- We will allow those playing with Civilian NFT game access passes to earn Artifacts and a reduced amount (1%) of WRLD from their gameplay - granting them in-game items that are sellable on the open-market. This will wake them up to the fact that all in-game skins should be offered as NFTs
- We will provide economic incentives as stated above to our Holders, that increase as new players enter our ecosystem, creating a positive incentive for Hero holders to help show the world of regular gamers what's possible
- We will create familiar game experiences within our P2E environment by replicating gamemodes, maps, and playstyles that are familiar to all gamers - FPS, Battle Royale, Factions, Age of Empires, etc.
- We will seek to reduce all friction + web3 interactions for players who just wish to play, wherever possible.

We hope that in doing all of the above, a regular gamer's choices become simple, as follows:

1. Play in an ecosystem where they are rewarded with digital assets for their time
2. Play in an ecosystem where they have to pay to be there, and aren't rewarded

Easy decision.

Founder's Letter

Hello. If you've made it this far I want to start by thanking you for taking an interest in this project.

My name is Nikolas.

Here is my LinkedIn: <https://www.linkedin.com/in/nikmo>

Here is my Instagram: <https://instagram.com/notnikmoore>

Here is my Twitter: [NIKOLAS \(@nikolas_eth\) / Twitter](#)

I'm a 27 year old crypto-native, currently working as a senior executive at Amazon Web Services and moonlighting as a crypto game developer. In my spare time I read, ski, play videogames, and buy JPEGs. I bought Bitcoin in 2012, I minted a Cryptokitty in 2017, I've thrived, and I've participated in my fair share of absolute rugs. (Bitconnect)

I want to start from a place of transparency because my intention with this letter is to explain to you why I'm creating this project, what I hope to achieve, and why I'm making some of the decisions that I am.

Foremost, I created this project to bring the magic of web3 to millions of Minecraft players around the world. I want people to play fun games inside Minecraft, earn a token in a space that's about to experience galactic growth, and become wealthy. I believe that we get back from this universe what we put out into it. I think if I could accomplish the above that I would be fulfilled knowing that I'd done something good, so that is what I've set out to do.

I added the staking + renting + Civilian NFT elements to ensure players who can't afford Heroes can still play, and to ensure longterm holders were rewarded without having to play. I devised the item mechanics of this metaverse to give players a span of control over the rarity of their NFTs, and to make it more interesting than a simple staking-centric game - two things I see missing in the current play-to-earn gaming landscape. The thing I liked most about videogames growing up was winning cool gear to put on my characters, so that's what I intend to give people here.

I added the DAO element because I want to give the community a meaningful span of control over the development of this game. If the concept proves to work my intention is to increase the level of funding the DAO receives out of my own equity and the project's various revenue streams to drive forward what I believe to be the future of organizations. Collective ownership + truly democratized decision-making is the only way forward for humanity, and game

development, because it gives players a meaningful span of control over their game experience - something sorely lacking in today's gaming environment. No more half-baked, microtransaction-filled videogames that make you pay for content they should've shipped with on launch. I intend for this project to prove that community-owned game development is the Way.

I want to close by saying that if you've made it this far, you're a true Hero. Above all I hope for this project to bring value to the community that supports it, so if you ever have any feedback for me, or ideas about how things could be better as this progresses, please reach out to me directly.

Welcome to Hero Galaxy!

Nikolas