

Preface



Highstreet is a decentralized Metaverse and MMORPG where brands, both traditional and crypto, can use our platform to seamlessly integrate and build their presence in **Highstreet World**. From Day One, **Highstreet** has striven for interoperability, partnering with major thought leaders from exchanges like **Binance**, blockchains like **AVAX**, to funds like **Everyrealm** and **Animoca Brands** to integrate with our "metaverse as a service" layer.

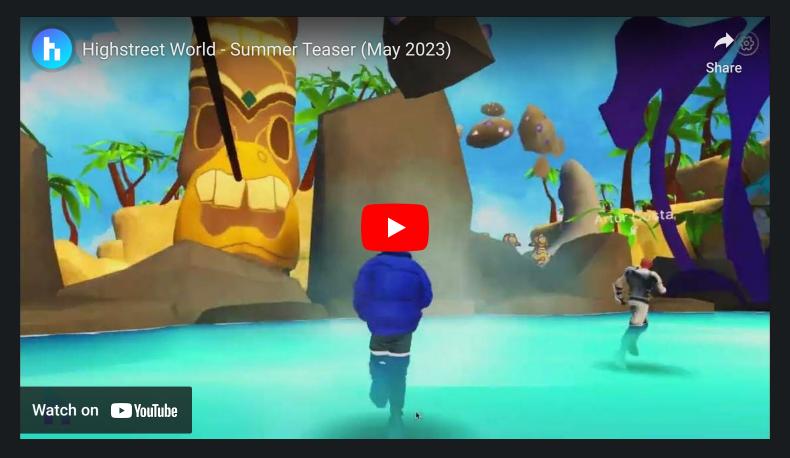
Beyond crypto projects, brands like **Balenciaga** and **LVMH** are extending their reach as well, to virtual worlds in order to expand to new markets. With the rise in popularity of NFTs, many brands are further tapping into the on-chain industry **Adidas** with their very own Bored Ape, and even **Harvey Nichols** with their own NFT drops. It is without a doubt that the future of retail and commerce is entertainment.

However brands are not equipped to build and develop full-scale games, and this is the opportunity **Highstreet** is seizing to define the next generation of shopping. With **Highstreet Marketplace**, both established and new brands can leverage **Highstreet** and seamlessly establish virtual storefronts both on Web3 and within the Metaverse. **Highstreet World** itself is an open-world MMORPG experience where the vast majority of in-game items are products by real brands.

I'm so proud to showcase our vision to you and hope this whitepaper gets you as excited about what we're building as we are.

These signals are all around us transmitting and sharing information about us through a data highway that together forms an infrastructure we know today as the the internet, or Web2. Although these applications empowered us with superhuman abilities that monumentally enhanced our productivity and in turn quality of life, they can still be improved upon. Humans are 3 Dimensional beings, while we have accustomed ourselves to engage and manipulate the data around us using 2 Dimensional screens, a great deal of information and experiences are lost in translation. The Metaverse uses immersive technology like Game Engines and AR/VR Headsets to help us visualize the internet in a more natural way. At Highstreet we embrace this concept of human machine interaction and apply it throughout our commerce centered MMORPG. The vision of Highstreet World is to create an alternative to the real world in which players can choose to truly reside in. As such we have focused heavily on Virtual Reality, commerce, and the concept of Phygital. While we know the current state of Virtual Reality might be limiting, the speed of which headsets are being downsized further propelled by the parallel development of an entire suite of peripheral devices like haptic feedback suits and omnidirectional treadmills we believe within 5 years every household will have at least one Mixed Reality device. Commerce is the backbone of every healthy economy, in order for Highstreet World to be sustainable, progression through the game must be tied to trade, and as such the mechanism in which in-game assets are created and obtained must be meticulously designed from day one. Finally Phygital products, the combination of physical and digital items is one of the elements that make Highstreet World so unique. While NFTs and digital assets have been blown out of proportion by mainstream media and celebrities, their real benefits are often overlooked. By introducing Physical elements to our in-game assets we establish a mental baseline floor price for the assets making them easier to comprehend and stomach for people who are not ready to fully embrace purely digital assets. Furthermore by establishing a digital twin to a physical product we can provide limitless additional utilities to it elevating its overall value. Finally Phygital gives us the opportunity to invite brands from the real world to participate in our nascent economy. With many marques and maisons already looking into digital assets, this sets the foundation for products to freely flow in and out of Highstreet World, establishing the potential for scale in the future while simultaneously bringing us into Web3. An MMORPG takes much longer to build than any other genre of games, however while analyzing competing Metaverse development companies, it quickly becomes apparent why it is necessary. Digital chat rooms with UGC sandboxes like Horizon World and Decentraland can be quick to spin up, but because the technology for drag and drop game development are still quite limited the resulting experiences often fail to generate user retention and traction with brands. Furthermore without a captivating story and player progression, it is hard to keep players engaged and sustained in disbelief. Thus Highstreet's core foundation must be an MMORPG.

Travis Wu, Co-Founder





Disclaimer

Highstreet is in development.

All information in this whitepaper is in constant evolution and revision.



Much of the content here is confirmed and "locked in", but since game development requires thousands of reiterations and adaptations, some aspects may change in the future.

Keeping that in mind, we will work hard to honor the vision of the whitepaper while staying adaptive to the needs of our users and the ever changing metaverse discourse.

With that said, enjoy your reading!

The FOMO Ducks Devs



Intro to Highstreet World

A VR MMORPG Game Experience



Highstreet World is a **play-and-earn open-world metaverse** that incorporates shopping, gaming, NFTs, and brands with an MMORPG game experience. Users can play-to-earn by completing quests, participating in events, socializing with players, and shopping for in-game assets and phygital products from real-world brands.

- Nowadays, frictionless checkout with e-commerce eliminates the social aspect of shopping. Highstreet **reimagines e-commerce and retail in the Metaverse and Web3 era**. This is done by integrating traditional brands into an on-chain world, tokenizing products into "**phygital**" items and bringing social back by creating fun immersive experiences for players to interact and connect with each other.
- Highstreet's **play-and-earn is driven by value creation** and seeks to demonstrate sustainable yield with its brand partnerships.

What is HIGH Token?

HIGH Tokens are the native utility and governance tokens of Highstreet.

Token use cases include:

- **In-game access**: HIGH Tokens are required in various areas for game progression or access to special events.
- **In-game currency**: HIGH Tokens can be used to purchase assets and products. For example, virtual real estate or limited edition products in Highstreet World.
- **Governance**: HIGH Token holders will be able to create and vote on on-chain governance proposals to determine future features of Highstreet, with voting weight calculated in proportion to the tokens staked.

Highstreet consists of the following major components working in conjunction:

- **Highstreet Marketplace**: Users can buy and sell phygital products and NFTs in the in-game marketplace.
- Highstreet Homes: Users are able to buy their own "homes" across various locations in Highstreet World through IHOs (Initial Home Offerings)
- **Highstreet Lands**: The land of Highstreet come in single Hexes, 10-Hex Zones, 50-Hex Regions, and 150-Hex Megaplexes. Land bundles and hexes will be commissioned to real-world brands to develop on to build in-game infrastructure (clubs, shops, homes, experiences etc).
- Forever FOMO Duck Squad: Besides being the official mascot and NPC guides of Highstreet World, the genesis NFT duck collection have the following use cases:
 - **Exclusive Membership:** Holders receive continuous utility and perks and have elite status advantages in Highstreet.
 - **Special Access**: FFDS NFTs act as gateway keys into exclusive areas in Highstreet World, starting with FOMO Eden rooftop on **Highstreet Campus**.
 - **Duck Transformation**: 2D NFT ducks will receive 3D ducks that will transform in-game.
 - Merchandise drops and vault openings: NFT holders can access exclusive drops and vaults. Discounts are also given to many in-game assets.

Asymmetric Gameplay: Highstreet will support players to join in from a range of different platforms, starting with VR & PC.

• **VR and PC**: The flagship gameplay experience is on the VR version. Users can also play on the PC version.

Dual Token Model

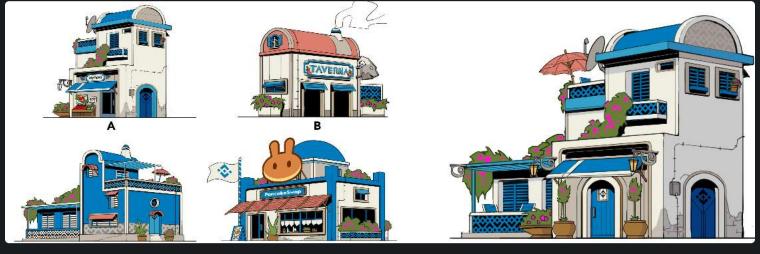
Besides **HIGH Tokens**, **STREET Tokens** (not released yet) are the in-game currency of Highstreet World. It helps ensure later players get an equal chance to enjoy the game without hyperinflation while still rewarding early participants fairly.



Users begin their Highstreet journey on Freshmint Island for a tutorial



After the tutorial, users will be able to explore Highstreet World



Concept art of upcoming point of interests in Highstreet.

At the forefront of Virtual Reality

VR Technology: Highstreet is built with the assumption that players will eventually find a healthy balance of immersion within virtual worlds, alongside maturing VR hardware that is rapidly evolving. Besides actively working with leading hardware manufacturers like HTC, there are other factors that contribute to the development of Highstreet, which include:

- **Personal Embodiment**: To capture users' representation of their body movements in the virtual world, the team leverages Ready Player Me avatars.
- **Social**: To enable social features on VR, Highstreet is developed using **Unity Multiplay game engine**, a multiplayer hosting service. It synchronizes player bodily movement and supports a large throughput of data to maintain organic player movement (on par with an actual human).
- **VR Analytics**: Providing measurable data metrics to VR experiences through the usage of gaze analytics, a new data analytics IP by Retinad, which is acquired by Highstreet.

Join Our Community

Please follow us on the links below!

- Twitter
- Telegram
- Discord
- MediumYouTube
- InstagramMirror

Appendix

Links
Official Website
Certik Audit
Explorer (ERC-20)
Explorer (BEP-20)

Roadmap & Milestones

Where we've been and where we're going~

Highstreet's Core Pillars

In 2022, we focused on building our digital world's core pillars by dedicating each quarter to one subject. This year, with those foundations in place, we aim to create core game loops that can be improved over time. To achieve this, we will be working simultaneously across four main disciplines: **Social**, **Combat**, **Crafting**, and **Exploration**. These four areas are essential for creating a foundational game loop.

The Social layer offers players the chance to form deep connections and create lasting memories as they explore the digital world together. The Combat layer provides opportunities for growth and enables various player groups to establish their unique identities. The Crafting layer builds upon this concept by integrating in-game items with our phygital cosmetic apparel, seamlessly blending commerce into the core gameplay. Lastly, the Exploration layer centers around world-building for the metaverse game and its lore.

The stronger the story, the more powerful the escapism. With VR technology advancing, what we need now is a world worth being immersed in. The Exploration layer requires a balance between our development team and the partners we work with. Integrating brand stories with our lore without creating overly commercial or shallow experiences will be our greatest challenge. To address this, we have formed a team dedicated to conducting research and implementing new partnerships. Lastly, to our loyal FOMO Duck holders, the party doesn't stop at FOMO Eden. In the coming weeks, we will share how Duck ownership will be integral to our upcoming gameplay.

Building an industry is a challenging task. It is through these challenges that we are able to truly innovate and push the boundaries of what is possible. In 2022, Highstreet set out with ambitious milestones to kickstart Highstreet World. Although we faced obstacles, we were able to overcome them and achieve great success. The past year has been a valuable learning experience, and we look forward to continuing to push the boundaries of what is possible in the metaverse. We look forward to you all joining us in our journey and being a part of building the future of Highstreet World. If you want to learn more about our project and stay updated on our progress, be sure to visit and follow us on Discord, Telegram, and Twitter.

2023 Product Roadmap



2022 Milestones & Highlights

- At the beginning of 2022, Highstreet set four ambitious milestones to kickstart **Highstreet World**:
- Develop virtual real estate
- Foster **commerce** in the metaverse • Lead the **play-to-earn** model into the mainstream
- Build a popular **MMORPG**.

Each of these milestones represented what we believed were the core pillars that needed to be built to begin moving users into our world. They also highlighted the key differences between a game and a metaverse.

We kicked off with a series of real estate sales to brands and partners, followed by our first Initial Home Offering (IHO) for **Solarium** units. We specifically avoided selling land plots to players because we understood that barren land has no value and any price movements would be derived from pure speculation, which was not only unhealthy but predatory in a waning market. Yet, we still needed to populate Highstreet World and accumulate concrete data on potential user growth to continue signing brand partnerships. Thus, Highstreet Homes were created to give community members a presence that they could own within Highstreet World.

Highstreet's First IHO (Initial Home Offering) — The Solarium

The Solarium was introduced in February, a neon-lit tower located at the heart of Highstreet City, lush vegetation and biowalls covering both the exterior and interior of the condominium, providing a futuristic and optimistic design aesthetic to our first ever Homes. The sale was incredibly successful. It was one of the best performing projects on Binance's NFT Marketplace, surpassing US\$10 million in trading volume within the first week. The team followed up immediately with our Move-In Day, when homeowners walked into their new homes for the first time, using either their web browser or a VR headset.

its limits to keep the process smooth. In terms of logistics and business development, getting HIGH to be the only third-party token accepted on Binance's NFT Marketplace took many rounds of negotiations. Poor quality control and outlandish demands from third-party platforms forced us to redesign our NFTs multiple times in a short time frame in order to future-proof Homes for our users. In terms of technical development, being the first project to merge a native VR application with a

From an external perspective, everything went more or less as planned, but our team was pushed to

Web3 browser application required our entire team to work for 18 hours a day over the course of an entire month. Architecturally, the two target platforms had nothing in common, and even the art assets had to be optimized for both directions. This means that we were effectively building two apps from scratch at the same time.

Furthermore, our planned partnership with Unity Multiplay was supposed to reduce our burden on server development and allow us to scale our growth by utilizing the same infrastructure that powers massive games like Apex Legends. However, a week prior to our release, our contact points at Unity informed us that Multiplay does not support browser-based games. This scenario did not even cross our minds, since Unity supports WebGL. Thus, with just days left before the Move-In Day, we had to build and test our own multiplayer game servers while hot-fixing compatibility issues that arose with a drastic change in architecture.

In the end, although we were able to launch without delay, the duct-tape code we wrote in haste became technical debt as the application got bigger — it eventually had to be demolished and rebuilt. In the months that followed, half of the team focused on shipping fortnightly feature updates to the Home app, from small UI improvements to the introduction of brand new systems like BB Drakes. The other half of the team rebuilt the application from scratch with proper infrastructure, improving one feature at a time.

For developers who are interested, the full, detailed report on our journey to Move-In Day can be found in this post.

Phygital Goods

Having been sidetracked for two months by the patchwork needed for Highstreet Homes, the team finally started crafting the blueprint for our Metaverse Commerce system in late Q2. Our thesis was simple: behaviors such as making in-game purchases and active world exploration will stay with the young players who love Roblox and Minecraft, even after they move on to other games and platforms. Thus, a metaverse that targets an adult user base while providing the same social and economical stimulus could become very valuable in the future. We also hypothesized that 99% of the world will not adopt pure digital asset ownership anytime soon, so the idea of phygital goods stuck. We set out to bond physical items to corresponding digital tokens.

With that in mind, our Unity team created a system that allows players to purchase physical items like T-shirts or sweaters in **Highstreet World**, and these items could be worn by third-party avatars like those of Ready Player Me. This means that when you buy a sweater through Highstreet, not only will you receive the physical garment, but its corresponding digital cosmetic item could also function as armor, providing additional utility and value within the metaverse.

The web team took this concept a step further by developing a Merchant Portal for brands that allow them to connect Highstreet with their Shopify dashboard and track their activity within the virtual world. This project was launched through our collaboration with 8-BIT by Mostly Heard Rarely Seen. Their 2022 Fall/Winter line, which could be purchased both online and in luxury department stores around the world, had a direct link to corresponding digital garments in Highstreet World. There were many challenges in executing this concept, but here are a few quick points worth highlighting.

As with most of our technical challenges, the obstacles came from the unforeseen need to create ad-

hoc compatibility wrappers for third-party, closed-source systems. During development, we struggled to obtain quick approval for making custom 3D apparel compatible with the Ready Player Me (RPM) system. To ensure interoperability, we opted not to create another avatar system. Instead, we developed our own wrapper system that automatically adapts our 3D models for RPM avatars, supporting the 108 new 8-BIT garments. This solution had to be built, tested, and continuously maintained to account for updates made by RPM, which took more time than initially anticipated.

Highstreet x Shopify

Another significant development in 2022 was our Shopify integration on the Merchant Portal. Our initial plan was to create a simple plugin that would enable virtual events within the metaverse to trigger purchase orders on existing Shopify stores, expanding our target market to include the 2 million independent e-commerce merchants on the platform. However, we found that the Shopify SDK was unable to handle this function. To overcome this problem, we developed new middleware that seamlessly connects purchase and

payment data from Highstreet with Shopify. We are proud of this solution as it not only allows for accurate inventory and pricing data to be displayed to players within a video game or metaverse setting, but also provides merchants with valuable sales data via a browser-based dashboard. Although it took an extra month to implement, we believe the outcome was worth the effort.

Highstreet Campus As the market cooled down, we reevaluated our original goal of taking play-to-earn mainstream in

light of a fast cooldown in GameFi. Despite the intricacy of our token economy, we saw that we would ultimately end up in a race to the bottom. As a result, we decided to delay the launch of our in-game token, Street Cred. Instead of launching a play-to-earn dApp, we focused on releasing Highstreet Campus. Highstreet Campus is a miniature version of Highstreet World — a social hub for testing various

features such as shopping, eating, embarking on quests, and engaging foes in combat. It is also a space where our team holds meetings, and improvements are constantly being made to the microcity. For our most dedicated supporters, it's clear that Highstreet Campus is continually evolving, with seasonal events bringing changes to the environment, characters, and NPCs. Additionally, as NPCs share stories and lore with the Highstreet community, players can gain a deeper understanding of the world we are building.



rooftop lounge complete with a zip line experience and tiki bar for Forever FOMO Duck Squad holders. Not only is this a delivery on a promise made to Duck holders at the beginning of our journey, but also a playground jam-packed with Easter eggs that tease the backstory of our beloved anatine mascot. Keen-eyed observers will enjoy the lore's richness and anticipate the conflict slowly being introduced to fuel the next chapter of Highstreet World's development.

About Highstreet Highstreet is a commerce-centered metaverse integrating shopping with gaming. While products from brands bring an endless supply of cosmetics, bridging character customizations with real world fashion, an MMORPG backbone further adds utility to them, allowing players to craft unique NFTs to either profit or elevate their gameplay. As Highstreet's phygital products continue to gain traction both online through E-commerce storefronts like Shopify and offline through various department stores around the world, Highstreet's Metaverse grows steadily through land sales to brand

partners; accumulating new stories to be shared and discovered by players around the world.

Q1 2022

Q1 2022

2021 Milestones & Highlights

Completion Date	Milestone	Links
September 2021	Forever FOMO Duck Squad NFT Collection	Medium Announcement
September 2021	IDO Public Sale on Polkastarter	Medium Announcement
October 2021	IDO Public Sale on Impossible Finance	Medium Announcement
October 2021	Drop 0 (FOMO's Secret) revealed and launched	Medium Announcement
October 2021	Halloween Private Alpha for early Signups	Private Alpha Preview
	Drop 0 NFT NYC Times Square	NFT NYC
December 2021	Miami NFT Basel Highstreet Mansion Yacht Kick-Off with first streamer gameplay	Tweet
Q4 2021	\$HIGH Listing on Binance	Binance
	\$HIGH Staking	Staking
Q4 2021	RUG Limited Edition Drop	RUG
	FOMO Duck NFT Staking	Duck Staking
	Highstreet Initial Home Offering (IHO) Part 1: The	Binance NFT

Solarium

Home Owners

\$HIGH Listing on

Crypto.com

Highstreet View Alpha for

\$HIGH Listing on Coinbase

Binance NFT

Realty

Coinbase

Crypto.com



Platforms

Highstreet is an experience for all those who seek adventure, through a fully immersive MMORPG experience - filled with hunting, crafting, selling, socializing, and overall having a lot of fun. Those who want a more social, less action-based game world also can just want to hang out, join events, engage with the market, and experience the fun of **Highstreet World** and the islands surrounding **Highstreet City**.

Highstreet World is currently available via a web experience where players can experience their homes and selected experiences like Highstreet Campus & Animoca RV Race Rally within our universe.





Highstreet View is currently available on web for homeowners in

Highstreet World is a **VR metaverse** that incorporates shopping, gaming, NFTs, traditional brands and crypto brands with an MMORPG game experience. Users can play-to-earn by completing quests, attending social events, socializing with players, and shopping for NFTs from real-world brands.



Where will your travels in Highstreet take you?



Our Universe

Solera and Beyond

"Which was birthed first? The crackle or the earth?" - Ancient Duck Poetry

The quote above is an intricate, yet common saying that circulates among the FOMO Ducks history books. When they first arrived in **Solera**, transported from their home planet through a crack in the skies, the Ducks strived through this hostile but wonderful environment.

Welcome to **Highstreet World**, home to the continent of **Solera**, as well as an ever expanding archipelago of mysterious islands and regions, each meticulously fashioned by the forces of the market.

Solera is the land of variance. From species to biomes, all its extension is filled with the most different (and sometimes crazy) diversity. Talking trees, Aliens, Cyborgs, Mutants, Animals, everything. Some of them just didn't survive. Some thrived and evolved, while others tried to escape this place. The Ducks were an example of that, but this is a story for another time.

Today, real-world humans and a tribe of mysterious ducks co-exist in a symbiotic relationship on this island; although each stakes their claim to **Highstreet City**.



Solera is the largest, and main land mass of our Metaverse, centrally located in the archipelago of islands that make up **Highstreet World**.

Today, real world humans and a tribe of mysterious ducks co-exist in a symbiotic relationship on this Island; although each stakes their claim to Highstreet.

We may never know if it was human ancestors who first opened the portal connecting the real world with the **Highstreet World**, or the ducks, who's ability to fly paired with their unique built in compass that always seems to point them towards the market first allowed them to colonize this floating island.

One thing is for certain though, the flow of products from the real world created a fur trade moment between the two species, and that relationship has created peace and balance for centuries.

The islands of **Highstreet World** are as varied as the citizens of the Metaverse. Islands formed by giant trees, with canopies that reach into the clouds and roots that stretch well beneath the ocean surface. Islands carried on the back of ancient creatures. Islands with a population made up of Ducks with a peculiar interest in commerce. Just about anything imaginable is possible in **Highstreet World**, and you never know what the next island right over the horizon holds to be discovered.

At the heart of this world is the bustling port side **Highstreet City**, filled with arts, culture, decentralized finance, and a whole lot of pure imagination.

Highstreet World is made up of hexagon tiles each representing a building block of the metaverse.

They come in Single Hexes, 10-Hex Zones, 50-Hex Regions, and 150-Hex Megaplexes. Players can purchase and develop both individual tiles and entire regions if they so choose to.

The Isle of Trials is the first stop for all Freshmints using Highstreet World in VR.

Located just off the coast of Highstreet City is **Freshmint Island**, or as the locals call it, the "Isle of Trials".

Here, freshly minted newcomers (**Freshmints**) must prove themselves to earn the title of **Explorer**, and overcome a series of trials to prepare themselves for a life of adventure ahead. Learn more about titles here:

https://app.gitbook.com/o/KMctPd1QcSa2NGaZISVz/s/oCAuazwS9vEC9cnhaGGX/~/changes/178/hig hstreet-world/user-titles



Starting at the Proof of Mind, players will assemble their unique Crystal Powered Gauntlet, which unlocks the various classes that you can use to brave the wilds of Highstreet World. As they progress through Highstreet, class abilities improve with use. Next is the Proof of Strength, where Freshmints will have to demonstrate their abilities to defend themselves against the danger lurking throughout Highstreet World.



Once both tasks are completed, Freshmints will qualify to take the Solera Express to the main continent of Solera, to start their journey as Explorers.

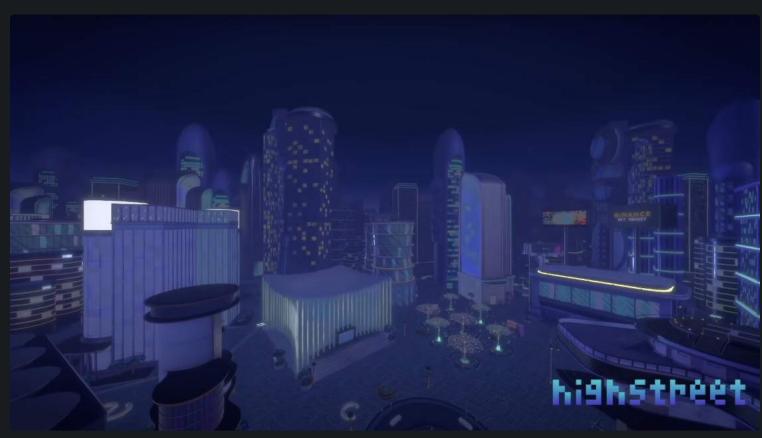


View of Highstreet City from Freshmint Island



Highstreet City

Where The Adventure Begins!



Highstreet City above the Art Block

After their exodus from their home island **FOMO Lulu**, the FOMO Ducks built a new sanctuary for themselves, one where they could develop their industries, design their restaurants and of course, create their own market, in peace.

This place was named after their mysterious goddess: The Moon Whale.

Nowadays, Highstreet City is a mix of ultra-modern buildings with a revitalized industrial district. The humans can't walk through the entire city, since, well, it was built for ducks, right? While the city is being reconstructed the humans will have a place for them to connect with the Ducks and other peers.

One thing is for sure: the Humans and the Ducks already sealed a long prosperous relationship and both will become even more wealthy and prosperous as they intertwine their markets.

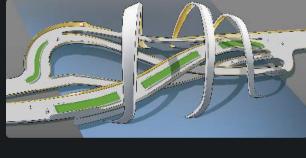


Solera Express leaving Highstreet Market inside Highstreet City

Eventually, all Freshmints find their way to Highstreet City. One of the reasons for the city's bustling success lay in the legendary marketplace located at the center of the city, rumoured to have been built using long lost technology, existing since ancient times. It is also said that a portal opened thousands of years ago, which connected the physical and digital worlds through a space time rift. Products and goods travelled into the digital world creating immense wealth for all who stumbled upon them.

This ancient civilization later figured out how to stabilize the rift into a sustained portal, making the region one of the most contested areas of interests. Wars were fought and civilizations perished and rose again, but with each transition of power one thing remains constant. The city around this portal kept growing, larger and larger.







Today, Highstreet City is a bustling metropolis where citizens from around the metaverse come together to hangout and trade. Highstreet City is also where real world brands start growing their metaverse presence.

Filled with bright colors and extravagant looking buildings, Highstreet City is the wealthiest city in Highstreet World, with a booming economy and ever expanding population, this is not only where you visit to acquire the trendiest gear, but also a place to invest in a home.

h Highstreet Campus

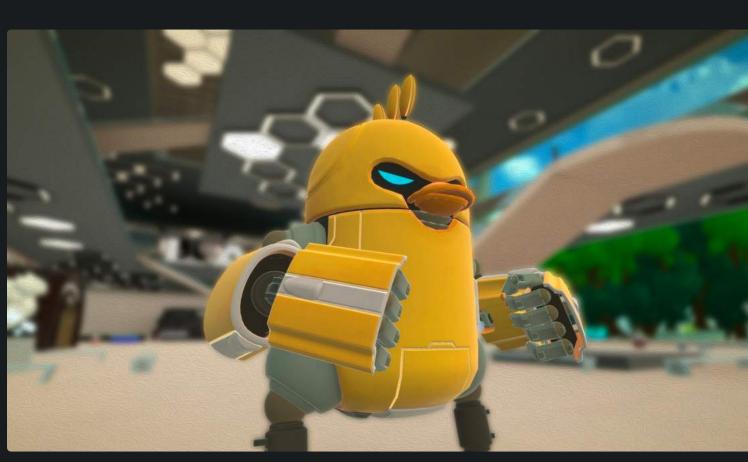
Highstreet Campus is the ultimate testing center for our Metaverse development. It's got VR and Browser multiplayer integration, it has web2 and web3 shops, crafting centers, and most importantly a ton of Lore.



Shopify Storefronts with Web3 Checkouts, perfect for NFT Merch or existing E-commerce Brands



Metaverse only features like Virtual Try-ons and "Phygital" Crafting



Meet your favorite Highstreet Characters like Robo Fomo who keeps the peace in Highstreet City



Or learn all about Human/Duck Collaborations in cross dimensional research from Quacky or if you're lucky, Quackhead Bill himself!



Marvel at the Lunarite Power Cell, crown jewel of Highstreet Campus and the result of 100 years of inter-dimensional R&D



More into the Arts? Dive into the Mythology and Culture of the local Duck tribes of Solera



Visit the Campus Library and discover all new Tales from the discovery of Solera to the Science of Inter-dimensional Travel



making a move towards ours



Finally, our next Initial Home Offering aims to populate the Animoca Archipelago region. Catch a peak of the exclusive Branded RVs before they go live.

Highstreet Campus is a dynamic enivornment that changes with the season. Upon every return you'll find new shops, new flavors, and most definitely new promotions. Our goal is to constantly iterate on the Campus experience as to test various types of integrations for the greater world.

FOMO Eden

Before the ducks settled on the continent of Solera, they used to be a proud race of skyfaring nomads. Celebrate their heritage in FOMO Eden!

If you own a "Forever Fomo Duck Squad" NFT, you have exclusive access to FOMO Eden, a brand new area in Highstreet Campus launching later in December 2022.



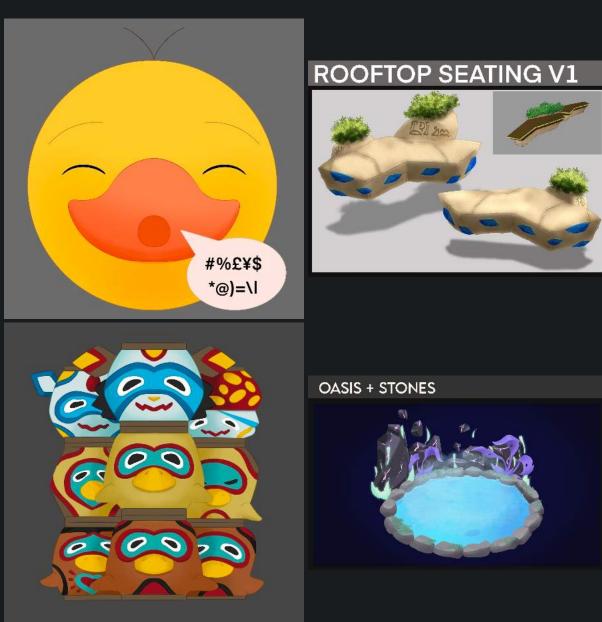
What is behind the gates of FOMO Eden?

Learn about the history of FOMO ducks and meet some of the ancient elders who helped build our fair Highstreet World and Campus!

STAIRS TO FOMO EDEN V1



There will be ziplines and puzzles and lots of new NPCs to meet!

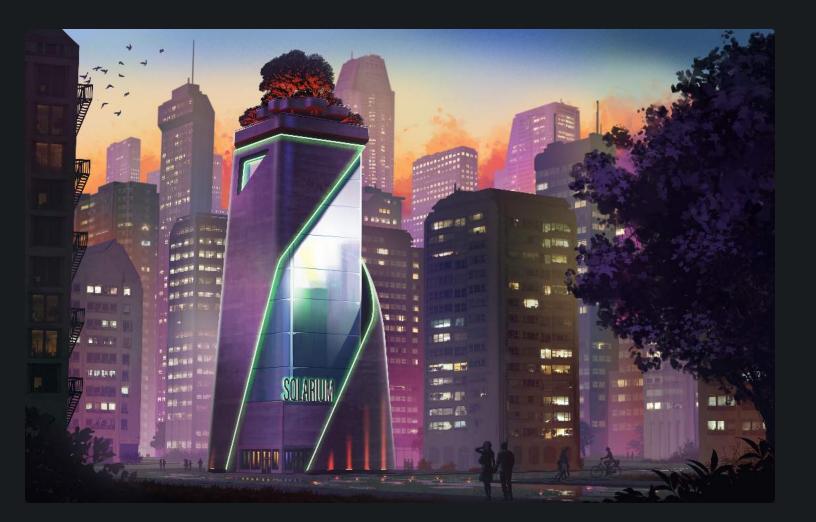


PLANTS VARIATION





The Solarium



Our first **Highstreet Home** offering is **The Solarium**, a luxurious tower centrally located in the heart of **Highstreet City**, with jaw-dropping views and sublime amenities that are perfect for explorers looking for supercharge the start of their adventure.

Highstreet Homes will eventually be revealed for future regions, like **Binance Beach**, **Everyrealm Estuary**, **AVAX Alps** and **Animoca Archipelago**. Future regions will reflect partnerships ranging from crypto brands, traditional brands, and celebrities.



Animoca Archipelago

Animoca Archipelago is an island chain off the coast of the main continent of Solera, a transarchipelago highway runs through the network of islands, each representing a brand or a game under the Animoca Brands umbrella.

Animoca Archipelago is similar in feel to Disneyland - The regions inside it have their own theme but they connect with the idea of an amusement park, attractions, fun and enjoyment. Each island becomes a standalone attraction and we should look at those places not only from a gaming perspective but also with a more broad approach.



Wandering around the archipelago is an experience itself. The players should feel that they're adventuring into the unknown, a place of discovery, mysteries and a ton of amazing experiences.

The continental highway system will connect all the islands making it easy to experience any place you want.



Animoca Archipelago is a place where a lot of universes (IPs, Games, Brands) coexist in almost perfect harmony. We will literally have models and assets from other projects inside this place giving a small taste of how enormous this universe is.



AVAX Alps

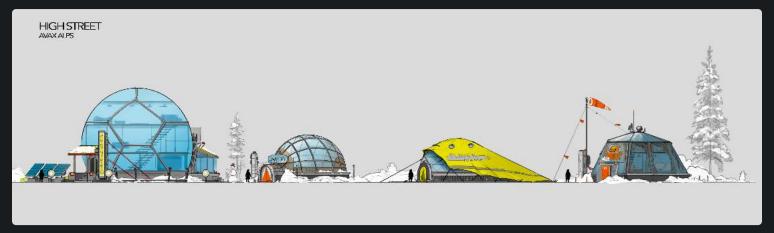
Avalanche Ecosystem minted into the Metaverse

AVAX Alps is the home of the Avalance Ecosystem, while the land celebrates its success with brands like Trader Joe and Wonderland, the glaciers help incubate new generations of Avax projects.

When we think about the coldest place in Solera we immediately think about Avax Alps. The topography is formed by huge mountains that circle the cities and tundras that grow in the islands.



The inhabitants live in apparently small igloos, but when you have the chance to look inside, you see that it grows inside the earth creating a beautiful, cozy and technological environment.



Don't be fooled by it's small footprint, some igloos systems can reach many miles underground beneath the snow!

Like other regions, AVAX Alps also have their own unique ecology to it. Beyond the forests many unique monsters lurk hiding behind trees, beneath the snow, or simply in plain sight.

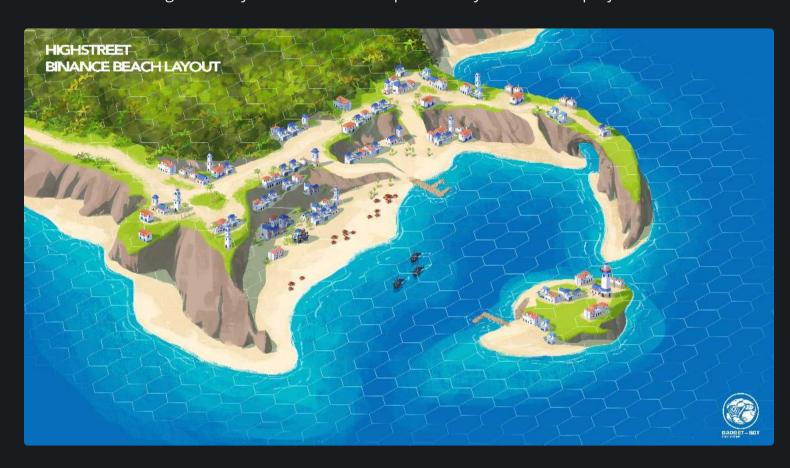


Monsters of AVAX Alps

Binance Beach

The Manifestation of Binance NFT in the metaverse

Binance Beach is where we re-imagine the Binance NFT Platform as a native metaverse region. Although the seaside town is populated with our NPCs and MMO components you'll find a pancake house and various galleries by the beach that are powered by Binance IGO projects.



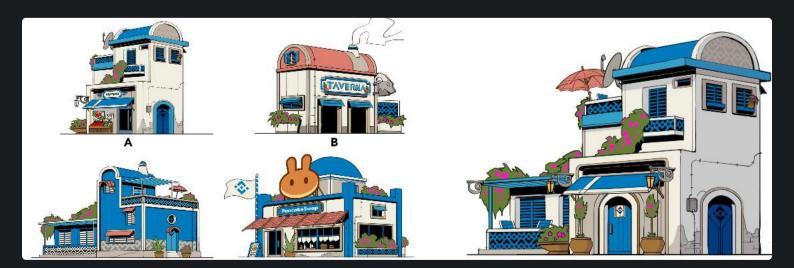


Just like every other region, Binance Beach has its own unique monsters, culture, and architecture to it.



Monsters of Binance Beach

Like you would expect to find on a beach, Binance monsters are all aquatic and beachfront themed with monsters that resemble coconut trees and Tropical fish

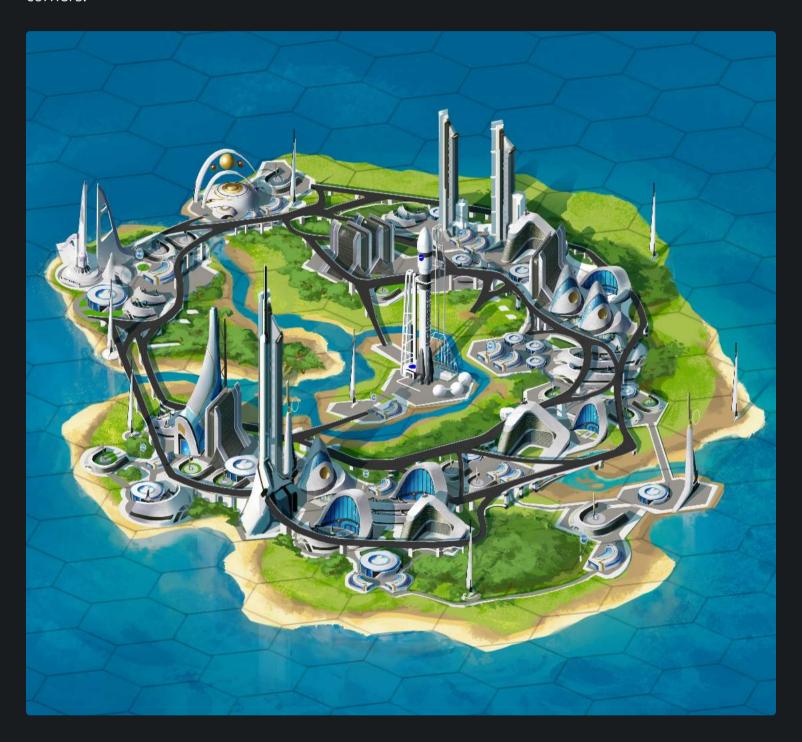


The architecture of Binance resembles that of greek houses greatly differing from the modern condos of Highstreet City. Residents of Binance are expected to be a bit more relaxed and enjoy their time in the sun.



Land of Tomorrow

The Land of Tomorrow is an island powered by both Science and Magic. The place is filled with startups, technologies labs and academic researchers, all in seek of knowledge and technological advances. A monorail connects all the regions together making it easy to travel and explore all its corners.





Our first IHO in the region will be for Timeless Tower - more information to come.



Exploration

"What is inside this cavern? (...) You don't know? Well, me neither. I'm in." - Xubie, The Explorer

In Highstreet, we want to make sure you can travel through the islands, traverse the most dangerous corners, uncover deep-hidden secrets and also why not find the perfect restaurant for a date. After all, one of the key elements of our game will be **Exploration**.

Exploring the world, cities and districts will not only be important but also rewarded in our game. We want you to feel you're part of something bigger a living and evolving universe.



Solera Express

Solera Express is our main transportation vehicle to take players outside Highstreet City.



From time to time, a flying ship sets sail from the station and can lead you to all of the external islands across the world.



Traveling has never been more exciting!



Solarboards

The Solarboard is the first transportation tool in the game, allowing players to fly through the city and beyond to explore vast lands and unexplored islands, hunting menacing monsters and seeking hidden treasures.

Later in game players can build bigger and stronger vessels, and even form parties on big expeditionary ships, however for now, this solar board will be yours to customize as it journeys with you across the metaverse.

Players can upload your own art for the sail, as well as the underside of the board. The Board itself is also an NFT that you can transfer and sell to anyone in Highstreet or on other secondary markets. You can purchase another board or craft another one by repeating the initial quest to assemble it.



× Combat

One of our goals during the development of Highstreet is to create an exciting combat system! Even tho it's an aspect that takes a long time to design, implement and polish, we'll do our best to bring a fresh new perspective to it.

What we can share by now, is that we aim for our VR Platform, to have a slow-to-medium relaxed pace of action, but with fun and exciting thoughtful strategies. The player will be able to cast spells, trigger skills and use their weapons to fit their chosen playstyle.

The ultimate goal is to have an easy-to-start combat system with an in-depth extension that allows different ways to fight. Powered by our main tool, the Crystal Powered Gauntlets (C.P.G.), that summons different equipment with its magic.



Monsters

As you travel through **Highstreet World**, you'll come across all kinds of monsters, including tiny drakes, walking mushrooms and stylish crocodiles. Defeating them in battle, whether using your arrows, your fists, or other means, grants the players level progressions among other rewards, like STREET Token.

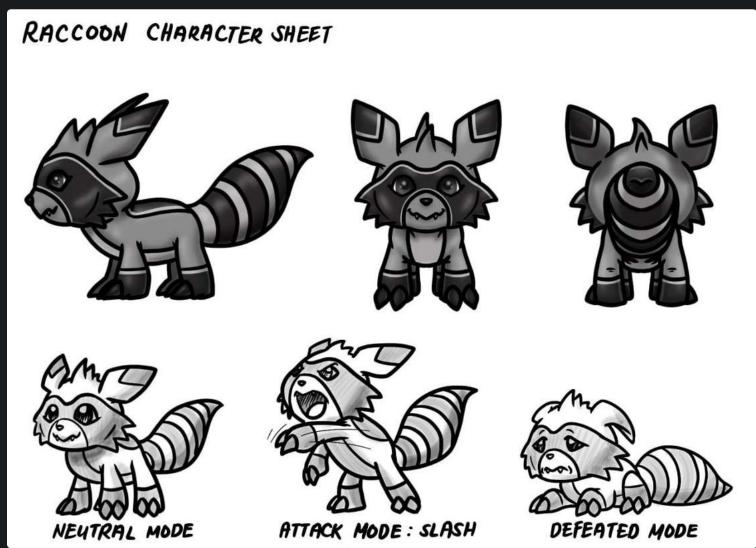
We'll have a wide variety of species of creatures that fits where they belong and we'll keep sharing them as we develop and expand our game.

Enemies generally have stats such as HP, Strength of Attack, Defense, Weak Spot, XP Value, STREET Value, and Type (Plant, Bird, Aquatic, Spooky, etc)

™ Night Bandit

- Monster ID: E012
- Tier: BB (1)
- Attacks: Slash
- Related Family Members: None Known.



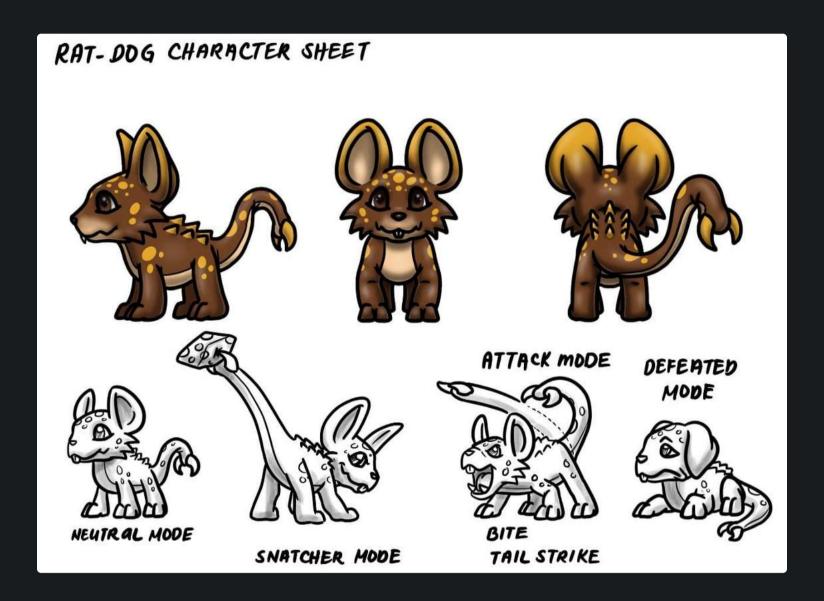


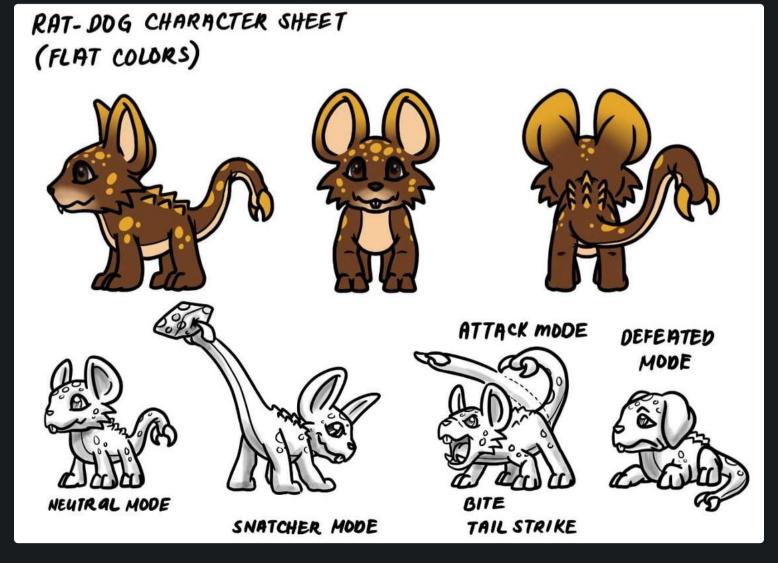




Rat Dawg

- Monster ID: E013
- Tier: BB (1)
- Attacks: Snatch!, Tail Strike
- Related Family Members: None Known.

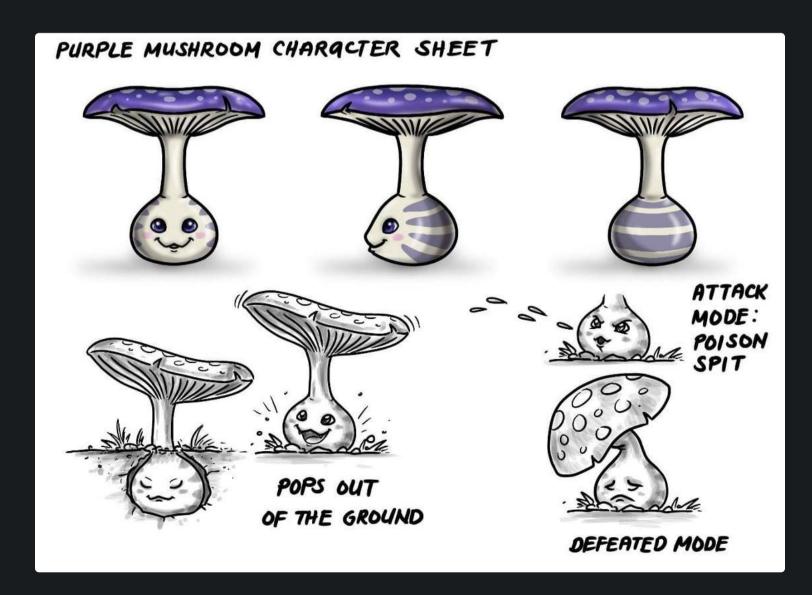






* Shroomingo

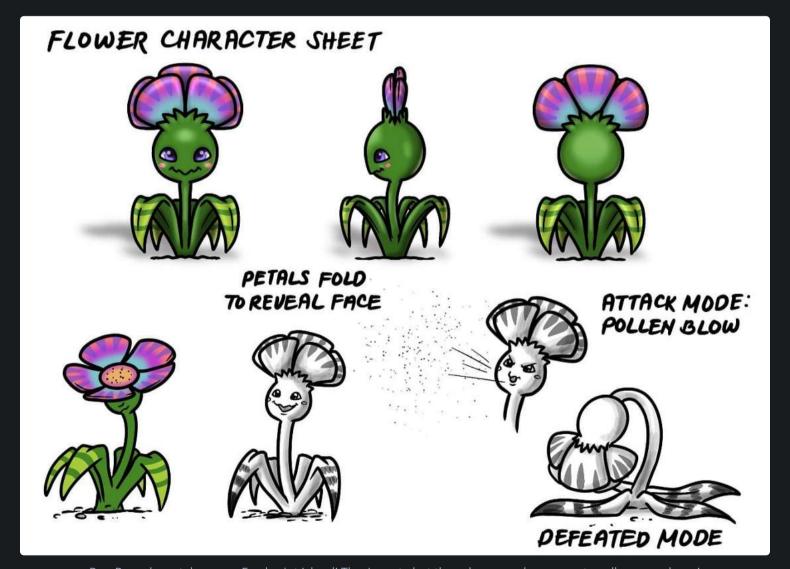
- Monster ID: E005
- **Tier:** BB (1)
- Attacks: Poison Spit
- Related Family Members: 🖰 Shroomingo, 🖰 Mushie





PomPom

- Monster ID: E003
- Tier: BB (1)
- Attacks:
 - **Pollen Blow -** Once players get within the aggro area (Basically the pollen cloud AOE) then it will attack you with a focused blow of pollen at you
 - **Pollen Cloud** Area of Effect, Cloud around it, happens randomly



PomPoms have taken over Freshmint Island! They're cute but they also spread some nasty pollen.. punch em!

Caution Range

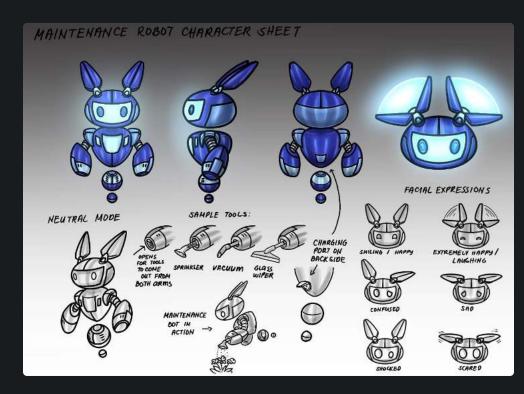
PomPom will follow the player in its turning and looking at you, semi-warning.

Will not attack unless player enters the **Danger Range**.

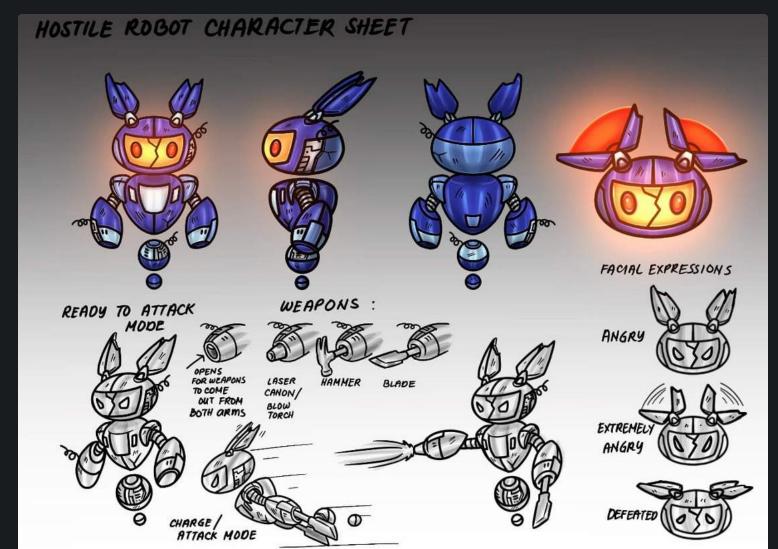


ADA Maintenance Bot

- Monster ID: E011
- Tier: BB (1)
- Attacks: Laser Cannon, Hammer Attack, Blade Up, Charge



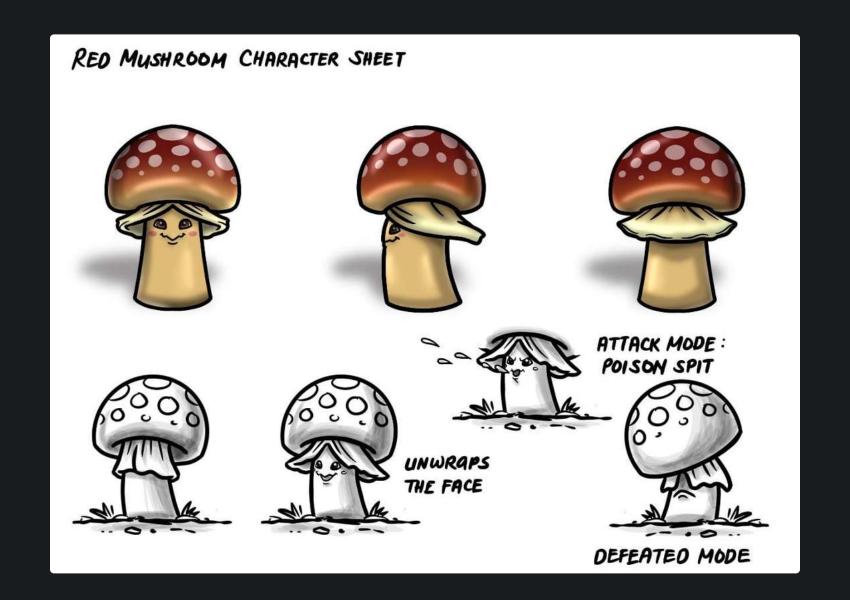






Mushie

- Monster ID: E004
- Tier: BB (1)
- Attacks: Poison Spit





City Drake

- Monster ID: E002
- Tier: BB (1)
- Attacks: Bite, Charge

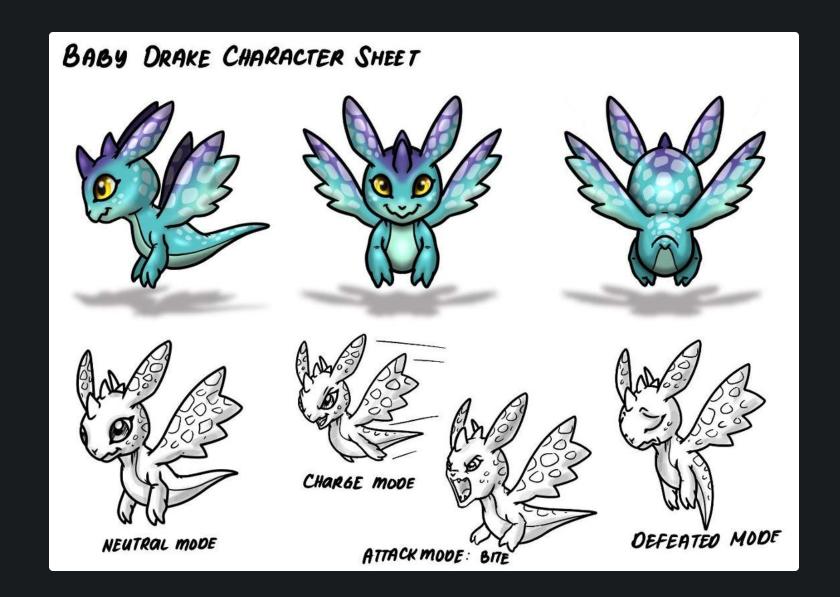






BB Drake

- Monster ID: E001
- Tier: BB (1)
- Attacks: Bite, Charge





Level Progression

Please note that all items in this whitepaper are works in progress and some or all information may change.

Stats are broken down into **HP**, **MP**, **Player Level** and **Class Level**. Classes can be changed using your **Crystal Powered Gauntlet**, which also acts as your communication, inventory, map, and status menu.

Starting Alpha Classes are limited to **Archer** and **Warrior**, and can be swapped at any time. The more monsters you slay while using a class, the more XP you'll get towards your class level, which will give you points to unlock items on that Class's Skill Tree.

When the player levels up a Player Level, this only increases their HP, MP, and recovers them both to 100% at the time of the level up. Additionally, some weapons and armors are limited to certain level classes.



CPG (Crystal Powered Gauntlet)





There are three components to each player's unique **Crystal Powered Gauntlet**- a base, a throne, and a crystal.

Base: Constructed from resources you find on Freshmint Island.

Throne: A center piece that gets added on top of the base. Has a mechanical contraption that holds a crystal

Crystal: The power/ammunition that powers the CPG. With some classes, can be used as a energy projectile.

To pull up the in-game menu, the player must hit "A" (or equivalent) on their controller to pull up a menu in front of their character. The first screen they'll see is the CPG: Main Profile.

QuackPack

QuackPack is the player's inventory backpack, specially developed by the FOMO Ducks.

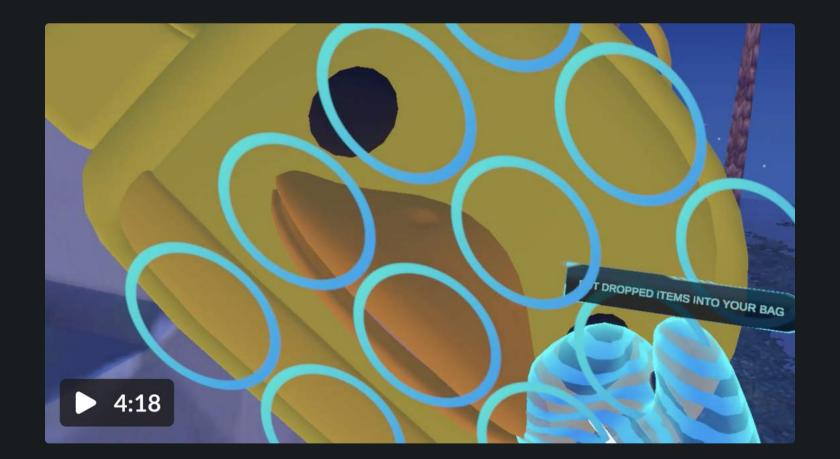
Player creates their QuackPack during the Freshmint Island Onboarding along with their Powerglove.



The QuackPack is divided into three categories.

- Wearables
- Useable Consumables
- Other

QuackPack items can be lost a player getting knocked out, so it's important for players to own a home, as a vault in their home stores the rest of their items.





Mathematical Homes

Highstreet Homes represent a core aspect of our MMO: metaverse realty. Players will be able to buy their own homes across the world and decorate them with their own style and looks.

Nowadays, we already have launched **The Solarium** IHO but soon we'll have updates on the next IHO's, so stay tuned!

In the future, we plan to integrate the houses with gameplay utilities, such as crafting bonuses, extra space for inventory and pet breading, but we're still developing that.





Currently Available Highstreet Homes

🖰 The Solarium



Highstreet Pets

Who doesn't want a buddy to join their adventures? Well, thinking about that we created the Pet System, starting with the **Pet Drake**, the domesticated version of the monster **BB Drake**

It still has a lot to expand, but initially, our plans for them revolve around four stages.

Stage 01 - Hatching

It's not born yet! But you still need to take care of it by petting it. After this stage, the little creature will hatch with its stats, rarity and traits.



Stage 02 - Post-Hatch

The pet is now a baby creature! It will hang around the house, you can pet its cute face and later we'll implement more interactions.



Stage 03 and 04 are still in development, but they'll revolve around the next two steps of their aging, from kids to adults. The pet may impact the combat, exploration and even the transportation of the player!



Right now we have only the Baby Drake pet, but we're already developing the Night Bandit and the Cats. Stay tuned for news on that.

There were a total of 1,500 Drake Egg NFTs minted.



Social

One of the best aspects of an MMO is socializing, right? Being with friends, meeting new people and having fun with peers are key goals for Highstreet.

To address those topics we're crafting experiences and features players will be able to interact with during the gameplay. What we can share today are the **Events** and **Branded Experiences**, but we have a lot more in development.



Economy

We are working hard to make sure we thoughtfully balance the economy of **Highstreet World**. We want to make sure to deliver a balanced economy that mixes the gameplay experience with true user asset ownership

Use cases include:

• **In-game currency**: Used as primary currency to facilitate all transactions in-game (i.e. buying from NPC characters representing brands, buying from other players, in-game item repairs).



HIGH Token

Like most MMORPG games, **Highstreet World** has an in-game currency **HIGH Token**.

HIGH Token has a fixed supply of 100,000,000 tokens.

Since **Highstreet World** is where the real and digital worlds collide, the in-game currencies earned by playing the game can simultaneously buy digital and physical assets. Your armor and health items are oftentimes real world products that you can buy together.

Acquiring **HIGH Token** allows you to buy products on our limited edition marketplace while also earning transactions fee when your **HIGH Token** is staked into the pool.

HIGH Token is used for real estate purchase in **Highstreet World**. We're calling this **Highstreet Realty**, and one of the main advantages of owning LAND Hexes or **Highstreet Homes** is that you can earn HIGH from transactions and economic activity in your region.

As Highstreet World matures, residences will first get to decide on Region matters, for example when we allow user generated content into the game, residences can vote on what will be included from the island.

HIGH Token also allows you to participate in governance. The game itself will slowly transition ownership from the Highstreet Development team to the players and holders of **HIGH Token**. This will be a gradual process as we believe it's much more effective and efficient of the game is first built in a more centralized manner.

Since **HIGH Token** is required for crucial game components like Real Estate ownership, players will often find themselves either swapping **STREET Cred** for **HIGH Token**, or outright buying **HIGH Token** directly from exchanges.

HIGH Token will be able to vote on merchant matters as well, selling products in Highstreet World may eventually require the staking of **HIGH Token**.







***** Wearable Products

Beyond limited edition products we enter the Highstreet In Game Item territory. At first glance when entering **Highstreet World**, everything seems like an ordinary MMORPG game. There are monsters, there are quests, and there are Health and Mana. However when you take a closer look, in place of all the gears and potions, you find real world products by real world brands.

By tokenizing a product, Highstreet facilitates the crossing-over of regular items from the real world to the virtual world.

Each product token is an ERC 721 NFT divided into two fractions. For example: If a clothing company decides to sell a \$30 T-shirt, it would be divided into a digital fraction maybe costing \$3, and a physical fraction that costs the remaining \$27. By purchasing the digital fraction players have access to the shirt in-game wearable to their avatar perhaps as an armor in game.

If a player so choose to, they can also purchase the other fraction making the token whole. When they do so, Highstreet will automatically place an order on the brand's e-commerce backend and the real product will subsequently be shipped to the user via their KYCed address.

The Future Is Phygital



How Highstreet Limited Edition Items sold on a Bonding Curve works

Traditionally, video games have charged players up front for a copy of the content, after which the player could then spend as much time as they'd like playing it. We've seen the rise of the freemium model, which act as a black hole to the player, pulling in their money and retaining it in game, in the form of equipment and boots, living there for eternity. The game itself may be free, but with infinite add-ons sold, creating a drug like addiction that entraps players into a long-term commitment. The more time and money players spend on their in-game character, the less likely they are to quit the game.

Recently a new model has gained popularity: **Play-To Earn**. This model creates an environment where the in-game currency itself is traded on public exchanges where direct value in fiat currency can be measured. Users can now withdraw money out of the game, creating a two way currency flow between the real and virtual worlds.

Today, Highstreet is taking this one step further by not only allowing money to flow between the digital and real world, but also allowing products and in-game items to move between realms.

At Highstreet, almost everything is phygital, consisting of a digital as well as physical component. Where the digital portion of a product has in game utility, for example a shirt becoming an armor or a perfume becoming a sprayable buff, and the physical portion is the real product sold in the real world that will be delivered to you if you so choose to redeem it.

The core focus of Highstreet Market is on limited edition goods. Many of our drop partners are celebrity-led brands or collaborations between established brands and artists.

However we do encourage the community to apply to use our marketplace as a way to launch products or even a new brand itself. Since products are sold on a bonding curve, it's an automated price discovery process that is perfect for new brand launches.

StreetSmart - Our Marketplace for Limited Edition Products

Highstreet Marketplace is accessible to users via a browser, but it's also a very real place in **Highstreet World**. Located on the FOMO Tower Rooftop, it is a direct manifestation of the web marketplace in 3D. The same products are sold and the same prices are translated across since the metaverse is just an alternative front end to the same smart contracts being used.

Bringing DEFI concepts to Real Products

Highstreet Marketplace is a limited edition marketplace catered to influencer lead brands or product collaboration between celebrities and artists. The market place is available both on the browser or in the metaverse through **Highstreet World**. Buying on the browser is as easy as ever, simply visit https://Highstreet.market and connect your wallet, then purchase the products you want with \$HIGH. In the Metaverse, if you take the ferry from Freshmint Island to **Highstreet City**, you'll dock on a rooftop that serves as the 3D Manifestation of **Highstreet Marketplace**.

Inspiration

On May 9th 2019, the Uniswap team announced Unisocks(\$SOCKS) at the Fluidity Summit in NYC. Although Unisocks wouldn't be the first product represented on the Ethereum blockchain by Tokens, it would be the first to allow every token to be redeemable for a pair of actual SOCKS in real life. Since only 500 tokens will ever exist, every SOCKS sold increases the price of the next one. Following a bonding curve to govern it's price, Unisocks tokens can be sold back to the liquidity pool at any time.



Marketplace for Limited Edition Products

Although Unisocks was launched as a proof of concept for a decentralized exchange, it demonstrated a viable path to disrupting the way physical goods are released. From a Luxury Brand's new line of apparel to VIP Concert Tickets, Fine Dining Restaurant Reservation to Small Batch Wine and Whisky sales, any limited edition product can be sold on a bonding curve. As such, our team has taken it upon ourselves to build exactly that, a marketplace on the ethereum blockchain for high end brands to launch their limited edition products

Highstreet Marketplace on web and VR includes **Phygital Drops** - tokenized products sold on the **StreetSmart™ Bonding Curve**. Each product has 3 components:

Digital

The first component you buy is the product token. You can sell this token back to the market at any time. To get the physical item and NFT to use in-game, you must burn this token by redeeming from your inventory.

By redeeming and removing the product token from the pool, the total supply of the token decreases. ••

Product tokens held in your wallet can also be used in Highstreet World.

Physical

The product token acts like a voucher to the physical product. To get the physical item shipped to your door, redeem from your inventory and confirm your shipping address.

All products on Highstreet ship for free! 🎉

Please note that once you redeem, you can not sell the product token back to the market and all physical items are non-returnable. 🚨

Metaverse

When you redeem and burn the product token, you receive a freshly minted NFT imbued with metaverse utility that can be used in Highstreet World.

From your inventory, you will be able to use your NFT as an in-game item like styling your avatar or decorating your Highstreet Home.

Product tokens held in your wallet can also be used in Highstreet World.

Limited Edition Collectibles FAQ

How it works

Each product token acts as a voucher to the physical item and NFT. You can sell this product token back at any time. To get the physical item shipped to your door, you must redeem from your inventory after buying.

Once redeemed, the product token is burned and your unique NFT is minted with metaverse utility and can be used in Highstreet World.

Product tokens held in your wallet can also be used in Highstreet World.

How it's priced

Every brand's product token has a unique starting price. Each buy and sell will move the price based on our StreetSmart™ Bonding Curve, displaying a dynamic fair market value.

How to buy

Buy using **HIGH**. Connect your Metamask wallet, approve the tokens, then confirm the purchase. Once the transaction clears, your product token is in your inventory!

Product tokens are either ERC-20 on Ethereum or BEP-20 on Binance Smart Chain. Payment will be on the same network as the product token in HIGH (ERC-20) or HIGH (BEP-20).

You can bridge HIGH between networks on Synapse

What is slippage?

When a product drops, it is common for many buyers to bid for the lowest token price on the network.

During the first minutes of a drop going live, we recommend setting your slippage to a higher % to have the best chance of processing your payment due to high traffic.

On the checkout page, you can set your slippage percentage (the max bid you are willing to pay), and see an estimated gas fee.

To process the payment MetaMask will prompt you to approve the token expenditure (small gas fee), then confirm the purchase (gas fee).

Slippage is a buffer in case of price changes, and it may not be exhausted.

How to redeem

Select the product token and click redeem from your inventory. Enter your shipping information, and proceed to confirm. MetaMask will prompt you to confirm the gas fee.

Please Note: This process is irreversible and your product token will be burned and removed from the shelf.

Once you confirm shipment of your physical item, your ERC-20 or BEP-20 product token will be burned and a new ERC-721 or BEP-721 NFT will be minted for you with a unique identifier code (Ex. PANTY #1) This new NFT will be viewable in your inventory on our website and on secondary marketplaces like OpenSea.

The physical product will come directly from the brand and is guaranteed authentic.

Redeem expiration During checkout and in your inventory, please check the redeem expiration date of each product

token. At the time of expiration, you will not be able to redeem the token for the physical product and NFT.

Product tokens held in your wallet can still be used in Highstreet World.

How to sell

How to sellSelect the product token from your inventory and click sell. See the current estimated value you will

receive by selling the product token back to the market. MetaMask will prompt you to confirm the transaction with a gas fee.

What is the StreetSmart™ Bonding Curve? With Highstreet Phygital Drops, you never have to wait for buyers and sellers. Our StreetSmart™

Bonding Curve enables our marketplace to directly buy and sell product tokens at a dynamic fair market value 24/7.

The bonding curve is a price discovery mechanism that calculates the price of a product depending

on the amount of products circulating in the market. When someone redeems and burns a product token, the floor price permanently moves higher behind the scenes. However, the current dynamic value stays the same for the next available product token.



Shipping

Where do you ship? Shipping is free for all rade

Shipping is free for all redeemed orders! Brands will attempt to ship anywhere in the world, directly to you. Depending on the brand and product, limitations will be noted on the checkout page.

Please Note: For international shipments, any duties and taxes will be the responsibility of customers. The country of origin will be indicated on the checkout page.

When will I receive my product?

On the redeem checkout page, there will be an estimated delivery time based on the product. You will receive a tracking number via email once your order is shipped.

What if my item is lost or damaged?

Every phygital drop has a reserve insurance pool. If your item is lost or damaged in transit, please contact us at fomoduck@highstreet.market for a replacement to be shipped or refund of the value at time of your redeem.

Can I return my product?

All physical products redeemed on the market are non-returnable.



What's In It For Brands?

Over the course of this decade, consumer behaviours have shifted drastically with each generation becoming more digitally inclined than the previous. As new brands lead the way, older brands struggle to keep up.

Bureaucracy and traditional company structures often got in the way of change, and with the pandemic of 2020 in full blown a lot of them are forced to either close shops or adapt. In 2021 brands like LVMH or Balenciaga turned to gaming as the new frontier for their businesses. Gaming, in particular social and multiplayer games that are streamable on platforms like Twitch are dominated by GenZs and crypto natives.

From Fortnite Concerts to Pokmeon Go Fests, gaming has taken over traditional social media as the main form of group entertainment amongst the younger generation.

For established brands, Highstreet is an easy way to enter the metaverse with very little expenditure. Have a T-shirt? We will tokenize it into two fractional NFTs. The first fraction is sold for a relatively cheap price and serves as an in-game item for players. The second fraction acts as an e-commerce event trigger, once a player purchases the second fraction, an order will be placed to the brand's existing E-commerce backend. To the brand, the first fraction is pure profit with no decrease in inventory nor added expense, while the second fraction connects directly to their existing infrastructure making the transition into the metaverse a completely seamless experience.

For new brands, especially those lead by influencers or celebrities, Highstreet Market's limited edition platform is the perfect launchpad. Using our street smart bonding curves we attract buyers with guaranteed liquidity, while giving sellers an even bigger upside. With price moving with every purchase, the platform itself is an automated price discovery mechanism. The bigger your hype, community, or following, the higher your price may go. Brands can customize their own bonding curves to be steep or flat incentivizing more transactions or redemptions.

With Highstreet Market, secondary market folds into primary market, no matter how high the price go, the brand will continue to profit from it.



Always Liquid

Throughout 2021 NFTs became a global sensation with millions of dollars being exchanged through platforms like Open Sea and Raribles. However one of the biggest challenges for new users is figuring out what to buy, and how to resell. When over 80% of products are iliquid, many buyers end up with a wallet full of JPEGs that are effectively worthless.

Highstreet addresses this problem using our Street Smart bonding curves. The price starts initially at a relatively low price, but with every purchase the price increases following a quadratic function. Since all deposits aside from transaction fees are stored in a smart contract vault, whenever users want to sell the market always have enough liquidity to purchase the product back from users. When a sale is made the price will subsequently fall following the same curve. Since all product sales are represented by ERC20 tokens, this also removes the logistical hassle from collectible traders. Finally when a collector wants the physical product they simply burn the token and the product will ship directly from the brand, eliminating any possibility for fraud.

Bonding Curve Based Price Discovery

Bonding Curves were made popular by DEFI platforms like Uniswap, Aave, and Bancor in order to ensure liquidity and remove the need for traditional market makers like in centralized orderbook based exchanges. Bonding Curves use a pricing algorithm that serves as the Automated Market Maker (AMM) so buyers and sellers of our product tokens can always ensure that there's someone on the other side to trade with.

For our product tokens, first a user can stake tokens into the bonding curve's reserve pool, by doing so product tokens are minted for the user based on the pricing algorithm. When a token is purchased this way, every subsequent token will increase in price, meaning early buyers are rewarded as they can now sell their tokens back for a profit.

Although there are many bonding curve formulas out there, we are adopting the Bancor Formula

$$ReserveRatio = \frac{ReserveTokenBalance}{ContinuousTokenSupply * ContinuousTokenPrice}$$
 (1)

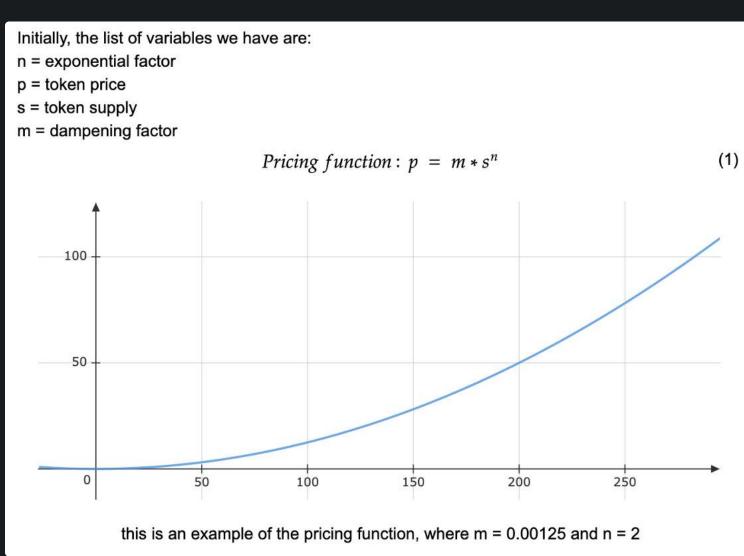
- **Reserve Token** refers to the token that the users initially stake into the bonding curve
- Continuous Token is the product token received once Reserve Tokens are staked
- **Reserve Ratio** is a fixed ratio from 0 to 1 between the **Continuous Token's** market cap and the value of the **Reserve Token** Balance.
- Since the **Reserve Ratio** is directly related to price sensitivity, this ratio will vary depending on the type of product being minted

Every buy and sell moves the Reserve Token Balance and Continuous Token Market cap, so in order to maintain our Reserve Ratio, the price of the Continuous(Product) Token will be continuously recalculated.

The above is simply a breakdown of the famous Bancor Bonding curve. Not only was it the most popular but also the most documented and referenced literature. However very quickly we discovered its limitations pertaining our specific use case.

From the beginning, we can already foresee that a lot of the features and results that we seek for a bonding curve based commerce platform directly goes against the nature of bancor's implementation. At a glance the Bancor curve should be able to conclude that token price = Reserve Balance / (Supply * reserve ratio). However there's a catch here, this formula is designed for a framgentable token, thus the pricing function computes instantaneous price at a given supply value down to 10^18th decimal. This pricing logic falls apart completely when each product token by design has to be whole. Since each token is pegged to a real world item, it does not make sense for buyers to own partial products. Additionally because these are real items with real world market value we cannot initialize the token price at \$0 when supply is also at 0.

In order to solve the above mentioned problems, we had to do a deep dive on the derivation process of the Bancor equation. We started with the fundamental idea that we wanted a curve that resembled some sort of hockey stick growth: as supply is driven closer to the upper cap, the price for each token increases more drastically. With an exponential equation (eq. 1), we can control the behavior of token prices on both ends of the spectrum: m will control price behavior when supply in circulation is low, and n will control price behavior when supply in circulation is high.



In order to address the issue that our token cannot be fragmented, we have to look for a way to precisely calculate the price to purchase one token based on the instantaneous price function given in equation 1. Upon further learning, we realized that the area under the pricing curve actually represents the total amount of stake tokens in the pool. Hence we can model changes in reserve balance by computing the anti-derivative of the pricing function (eq. 2). Thereby, we can derive the equation further to compute precisely the price for k tokens given the existing supply of x (eq. 3 - 9). So far, this is all within the scope of bancor formula implementation; we had to make adjustments on our business logic to account for the indivisible nature of our tokens (i.e, adjust for price calculation and token transaction logic), but no deviation from existing Bancor implementation thus far.

Balance function:
$$b = \int_0^{upper\ bound} \frac{m}{n+1} s^{n+1}$$
 (2)

if we want to compute precise price for the k tokens, given x token in existence, we need to:

We can simplify this function by factoring out the second term

Evaluate between
$$x$$
 and $x + k$: $p(x+k) = \int_{x}^{x+k} \frac{m}{n+1} s^{n+1}$ (3)

 $p(x+k) = \frac{m}{n+1} (x+k)^{n+1} - \frac{m}{n+1} x^{n+1}$

$$p(x+k) = \frac{m}{n+1} x^{n+1} * \left(\frac{\frac{m}{n+1} (x+k)^{n+1}}{\frac{m}{n+1} x^{n+1}} - 1 \right)$$
 (5)

(4)

$$p(x+k) = \frac{m}{n+1} x^{n+1} * \left(\frac{(x+k)^{n+1}}{x^{n+1}} - 1 \right)$$
 (6)

$$p(x+k) = \frac{m}{n+1} x^{n+1} * \left(\left(\frac{(x+k)}{x} \right)^{n+1} - 1 \right)$$

$$p(x+k) = \frac{m}{n+1} x^{n+1} * \left(\left(1 + \frac{k}{x} \right)^{n+1} - 1 \right)$$
(7)

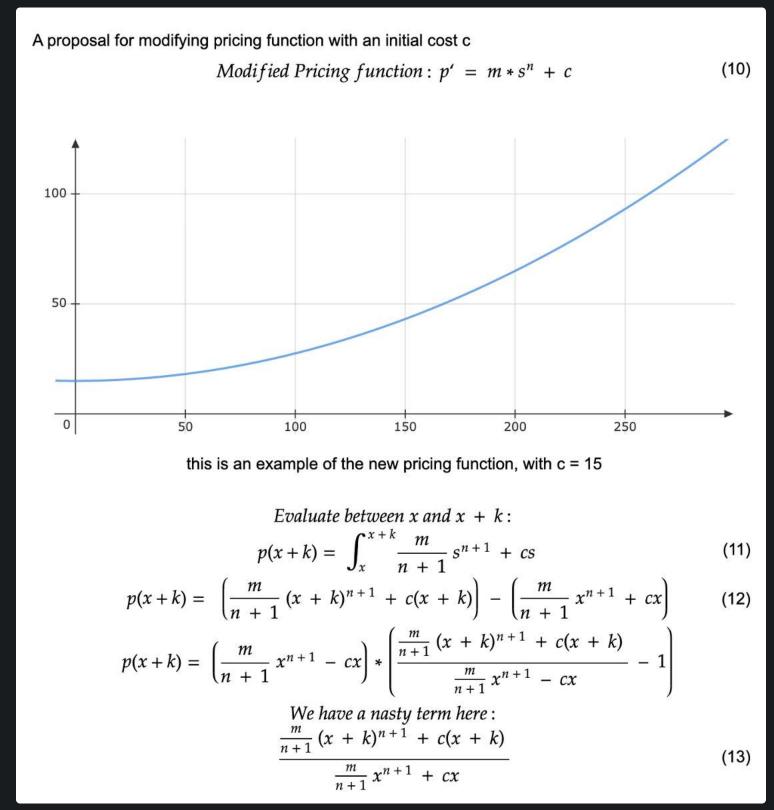
This computation is simplified further in the Bancor implementation because reserve balance at x is a stored variable.

$$b(x) = \frac{m}{n+1} x^{n+1}$$
 (8)

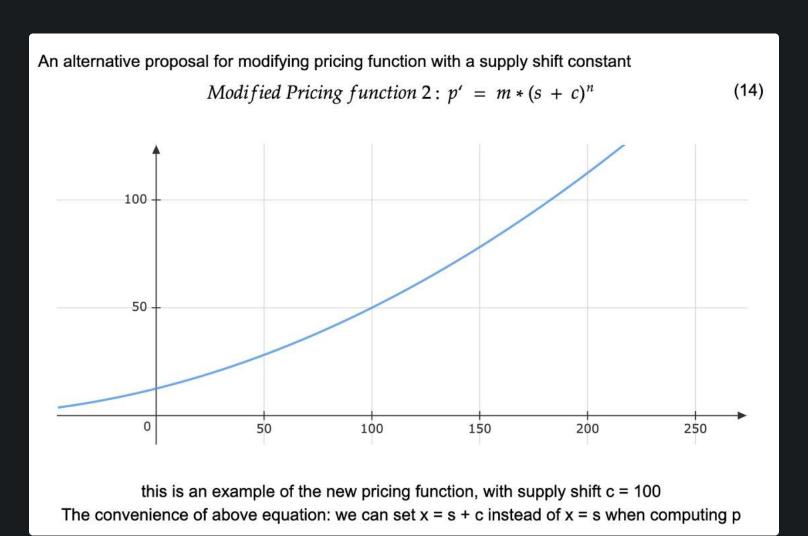
$$p(x+1) = b(x) * \left(\left(1 + \frac{k}{x} \right)^{n+1} - 1 \right)$$
 (9)

Amendment with initial price implementation

Implementing initial pricing is where deviation starts to show. Initially we thought about modifying the pricing function with a constant (eq. 10). This however introduces a new complexity, as we have arrived at a term that cannot be simplified easily (eq. 11 - 13), and not computationally viable if calculated as is.



An alternative we chose to pursue is an equation similar to eq. 14. This has an advantage in that this does not modify any code of the existing Bancor curve implementation, and thereby minimizes risks for coding error. What we have to take into account however, is that based on the initial price (the ideal y intercept of p(s) when s = 0), we have to compute supply shift and reserve balance as prerequisites when creating a new token.



Key Terms

Highstreet (Company) - That's us!

Highstreet World (Metaverse & Social World) is a **VR open-world metaverse** that incorporates shopping, gaming, digital assets and brands with an MMORPG game experience. Users can play-to-earn by completing quests, attending social events, socializing with players, and shopping from real-world brands.

- **Highstreet Homes**: Users are able to buy their own "homes" across the various locations in the **Highstreet World** through **IHOs** (**Initial Home Offerings**)
- **Highstreet Lands**: The land of **Highstreet World** come in single Hexes, 10-Hex Zones, 50-Hex Regions, and 150-Hex Megaplexes. Land bundles and hexes will be commissioned to real-world brands to develop on to build in-game infrastructure (clubs, shops, homes, experiences etc).

Highstreet Marketplace: Users can buy and sell phygital products and digital assets in the in-game marketplace.

- **FOMO Ducks** one of many ducks that exist within **Highstreet World** they are the native residents, and welcome humans from the real world to join them in the Metaverse.
 - Generally friendly, these little ducks love to hang out, showcase their wares, and help players get started in **Highstreet World**.
 - A little cowardly and weak, they rely on the help of Residents to help protect and keep their peaceful world in balance.
- Forever Fomo Duck Squad (Ducks): Besides being the official mascot and avatar NFTs of Highstreet World, these NFTs have the following use cases:
 - **Duck Transformation**: 2D NFT ducks will receive 3D ducks that will transform in-game.
 - Exclusive Club: FFDS NFTs act as a gateway into an exclusive FOMO Duck club in **Highstreet** World.
 - Merchandise drops and vault openings: NFT holders can access exclusive drops and vaults

HIGH Token - HIGH Token is the primary token used within Highstreet. HIGH Token is an ERC-20 token, with a BEP-20 version on Binance as well, and is used for purchasing limited edition items, real estate and governance.

Highstreet Monsters - These include **Drake, PomPom, Mushie** - Three early monsters that you'll encounter within Highstreet World.

Player Level - Tied to XP earned and affects HP, MP and unlocks areas/weapons based on level.

Class Level - Tied to each "Class" of your character

HP - Player Health Points - once this runs out, the player passes out and respawns either at the Highstreet Hospital or at their real estate.

MP - Player Magic Points. Goes down when the player uses attacks that use magic.

Residents - The players who make up the players of Highstreet World.