
OUTER FRINGES
GAME DESIGN PLANNING

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Game Overview

Game Overview

Name: Outer Fringes

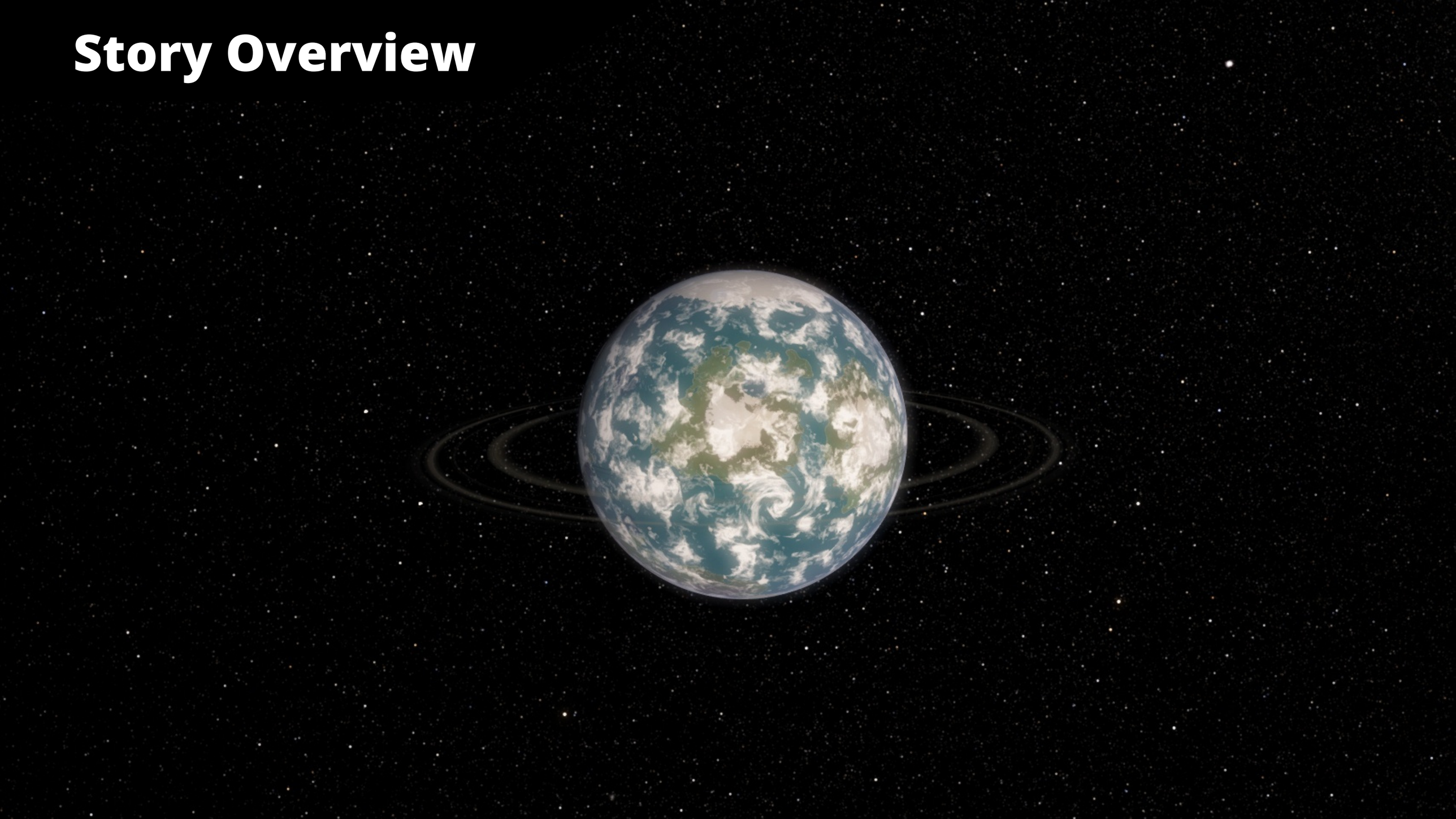
Platforms: iOS Android

Type: First/third person singlepayer story driven delivery game with multiplayer interaction and economy aspects.

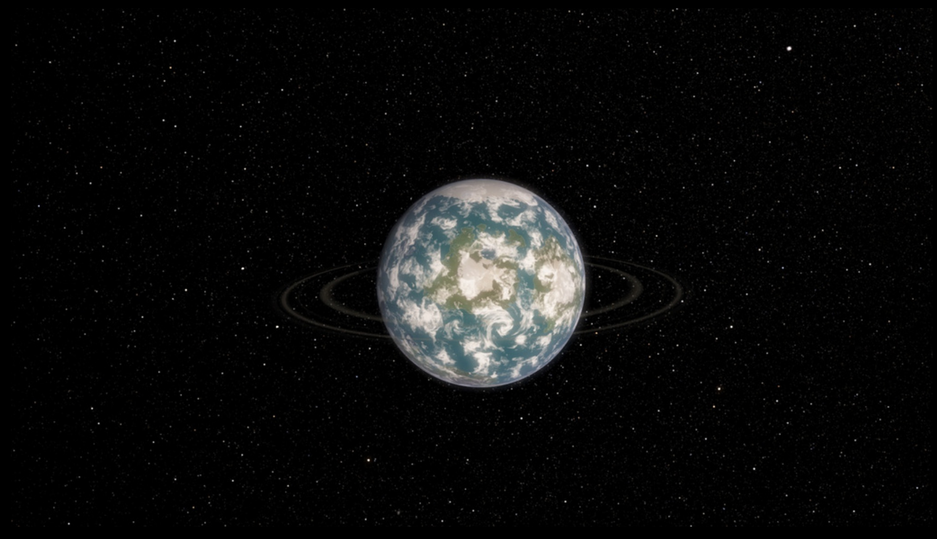
Short description:

In Outer Fringes you play a former detective from Ceres in the year 2283 delivering cargo and people between colonies on New Terra. In between delivery, trading, racing, and customizing your NEV you try to find the answers to your colony ship crash, which took your friend's life. In addition to delivering cargo or people yourself, you can set up automated NEVs to deliver cargo for you and customize them to fit the task. Need the cargo to stay warm? Add a heated compartment or make the NEV go faster to reach the destination quicker. Are road conditions at the destination rough? Modify the wheels to have increased traction, add better suspension and increase engine and brake power. The choice is yours!

Story Overview



2.1 Background & Locations



New Terra

New Terra, originally named RS 8474-918-7-65905-410 A4, gained its name from its similar characteristics to Earth. It's a cold planet with an average temperature of 10 degrees Celsius, covered with snowy mountains, rich in rare metals, vast oceans, speculated to contain mineable lithium nodules and great green flat plains. New Terra's geography is not yet fully understood as its features are speculated to be impossible to have formed together naturally. Being a bit lighter than Earth, New Terra has reduced gravity on the surface at 0.7g, which allows people that grew up in low gravity the ability to live on the surface without any extra support and allows easier delivery of ore into orbit. The Atmosphere on New Terra mostly consists of nitrogen and oxygen giving it a blue tint. Curiously during winter, the analog of grass on New Terra recedes into the ground. Orbiting New Terra are a total of 10 moons, the largest, called Arakis, being 443km in diameter, but since it's quite far out, the most visible is Minerva, nicknamed "The jewel of New Terra" by the locals, at 130km in a low orbit. In addition, New Terra also supports a large planetary ring even visible during the day. At 20 hours a day, it's quite close to Earth and humans are able to adapt to the new rhythm with little to no issue. Due to the above-mentioned factors and especially, its abundance of mineable resources, New Terra was the first planet to be colonized outside the Sol system (our current solar system) by humans.

Hermes and Perseus

Shortly after habitable worlds on the other side of the gates were discovered in 2262, a lot of colony ships were being created, either being built or retrofitted from existing ships. Among these new ships being built were the sister ships Hermes and Perseus, commissioned by Futura inc. Starting construction in 2273, Hermes and Perseus were designed to ferry hundreds of people and cargo to the new worlds, and bring resources back to be sold, keeping the ships profitable. The Perseus was completed early in 2276 and shortly after was ready for its maiden journey to New Terra to establish the colony Sierra, but the Hermes wasn’t so lucky. Due to critical reactor issues during testing, Hermes was delayed and only completed by the end of 2278. During 2279 the Hermes underwent extensive testing and crew training, and in 2280 it was ready for its maiden flight to Sierra on New Terra.

2.1 Background

Sierra

Established in 2279 by the colony ship Perseus, Sierra is relatively young compared to other colonies. Located at an altitude of 1064 meters above sea level in a mountainous valley, and in the northern hemisphere near the equator, Sierra experiences a high variation in temperature and weather year-round. With only 281 people Sierra is barely able to sustain itself and relies on the profit from mining the unnaturally metal-rich mountain it is situated on to meet all of its needs. Luckily Sierra is located nearby multiple colonies and roads making trading and transport to nearby colonies a breeze. Not everything has gone according to plan in Sierra as just a few months after colonization, an unfortunate mining accident took the head of mining operations life. Soon 561 more colonists are scheduled to arrive aboard the Hermes and step foot in Sierra.

Futura inc.

Bringing the future to you

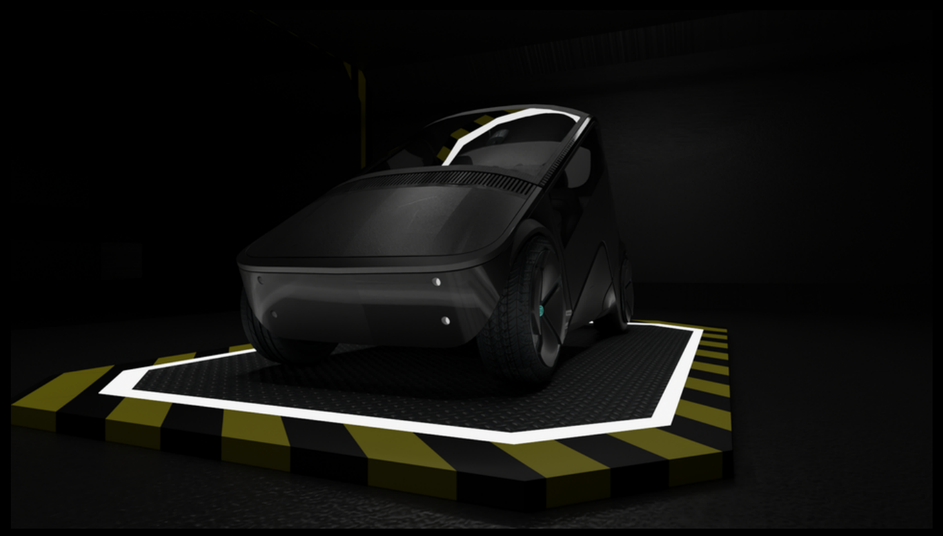
Futura inc.

Created in 2263 by Mars to spearhead colonization operations, Futura inc. has already helped to create multiple colonies. Backed by Mars they were the first to create a colony on New Terra in 2267. Since then they have primarily focused on colonizing New Terra, but have colonized 2 more planets. Futura inc. currently owns 11 colony ships, including the Hermes and Perseus, and this number is only expected to grow in the coming years as colonies are turning out to be profitable investments, especially mining.

2.1 Background & Locations

RAM Workshop

RAM is an acronym meaning Rapid Assembly and Modification workshop. Created by the MTA (Mars Transit Authority), it acts as a semi-automatic garage to upgrade NEVs. Inside in the middle is a platform for a NEV surrounded by robot arms. Behind the platform is a terminal to manage the workshop and tool storage for manual work. To the left is a storage area for materials and to the right is the liquid fabricator. The liquid fabricator can produce virtually any part as long as it has the required resources. It works by injecting particles of material into a liquid and using a laser to harden it, thus creating any part needed. Since the liquid is harmful to humans a robotic arm extracts the completed piece and hands it over to the robotic arms at the platform for assembly.



Racing Scene

Due to the abundance of vehicles and manufacturing possibilities and the lack of entertainment so far from Sol. Racing has become a popular sport among New Terra inhabitants, going so far as to have racing leagues. Each colony usually has a race track or two near them. For example, Sierra has an underground racetrack in an abandoned mine outfitted with neon lights and bars. Other racetracks across New Terra include: A winding, snowy track around mountains with gorgeous views but a long way down if you don't stick to the course, a track entirely in a colony, and a track built on the great plains of New Terra with water elements.

2.2 Characters

Name: Miller
Age: 65
Occupation:
Retired detective

You play Miller, a well-known former detective from Ceres. Miller's childhood wasn't easy. Born into a poor family on Ceres in the upper slums, one of the least desirable places to live due to the strong Coriolis effect, Miller never knew luxury and had to learn how to survive on his own at a young age. At the age of 17, Miller decided to become a detective after his parents mysteriously disappeared. During Millers' career at the CSF (Ceres security force), he solved many great cases deemed unsolvable, including his own parents' disappearance, which turned out to be the work of a local gang on Ceres, now a part of history. During a well-earned vacation to Mars, Miller met Pascal in a local Chinese-owned bar. They got to talking, and they really hit it off, still being friends to this day. Miller retired 11 years ago at the age of 54. After he blew through his retirement plans, Miller lost all passion and direction in life and didn't know what to do. Miller had done everything, rock-hopping in a tea kettle, slingshot racing, sight-seeing on the moons of Saturn, drinking at almost every bar on Ceres, from the docks, to where the Coriolis effect becomes unbearable and watching an ungodly amount of every available entertainment feed. After Miller had done everything, he spent his days wandering around the docks looking for trouble or at least something to do. So when his long-time friend Pascal approached him with a once-in-a-lifetime opportunity to go through the Saturn gate to the new worlds, he was ecstatic, to say the least, to finally have some change in his dull life.

Name: Pascal
Age: 59
Occupation:
Engineer at MTA

With degrees in mechanical, electrical, and software engineering Pascal is one smart man. Coming from an Indian heritage in the Mariner valley on Mars Pascal's parents realized early in his life that he was no ordinary kid and pushed him to achieve extraordinary goals. As a teenager, Pascal loved to tinker with vehicles. After graduating high school Pascal enrolled in one of the best Universities on Mars - MTU (Mars technical university). At MTU Pascal pursued three degrees at the same time, barely sleeping and with no free time, but it paid off. Right after he graduated he got approached by the MTA (Mars Transit Authority) to design a modular vehicle for use in the tunnels of Mars, codenamed MATV (Modular autonomous transport vehicle). Pascal kept working at MTA his whole life, never having time for a family until the Saturn gate opened. When habitable worlds were discovered on the other side of the gate, the MTA relaunched the MATV project, but this time to create vehicles being able to adapt to any conditions, while still preserving their modularity for use on the new worlds, now codenamed NEV. Along with the NEV project, they developed a sort of garage, named the RAM (Rapid assembly and modification) workshop, so these vehicles could be built, repaired, and customized on these new worlds. After the first colonies were established and the first NEVs were in use a need arose for someone qualified to be on-site to maintain these vehicles. So Pascal was given a chance to move to New Terra with his family and make a new home on the largest colony outside Sol. Since Pascal didn't have a family member to bring but didn't want to waste the chance, he chose Miller to come with him.

2.2 Characters

Name: Grace
Age: 34
Occupation:
Head of medical on Hermes

Grace is a tall, light-skinned woman with dark hair, brown eyes, and freckles on her cheeks. Being very professional by nature she is strict and dependable, but when she is off the clock she lets loose and becomes a completely different woman. She was head of medical on the Hermes, but after the crash, plans changed, and now she is planet-side overseeing the colony clinic. Having many years of experience working at a clinic on Ganymede, Grace didn't have a hard time getting on the Hermes and got selected as head of medical. Alongside technicians, engineers, and flight crew, she was one of the few people who stayed awake during the three-year-long flight to New Terra. During the flight, she monitored and cared for the rest as they were in suspended animation. The original plan called for Hermes to stay in low orbit around New Terra for eight months, ferrying down supplies and bringing up anyone needing medical care the small colony couldn't provide. After the eight months passed Hermes would load up on ore and resources mined by the colony, return to Sol to pick up more supplies and colonists, and then return back. But as Hermes crash-landed, plans changed.

Name: Williams
Age: 45
Occupation:
Geologist in the Europa mines

Born on Earth, Williams was always fascinated with geology. After graduating high school William enrolled in the Paris Commercial Zone University (PCZU) to study science and geology. After graduating with a doctorate in geology, Williams received a lucrative job offer in the Europa ice mines as a geologist helping survey potential mining sites. Over the years, as William's expertise increased, he became head of surveying operations, overseeing all survey operations. When the gates opened William had a great interest in surveying these new planets but didn't have the means to do so, but when Hermes was being built things changed. Due to William's experience in surveying mining sites, Futura inc. offered him to be head of mining operations in Sierra, which he accepted.

2.2 Characters

Name: Serge
Age:53
Occupation:
Proffesional miner

Commanding the room with a thick Australian accent and a golden beard, Serge's personality is just as explosive as the explosives he uses. Serge is a great drinking buddy and even a greater miner. Born in the asteroid belt into a family of miners Serge was guaranteed to become a miner from the day he was born. He became semi-famous during his life for his mastery of mining with explosive charges and the countless bar stories involving him. So it is no wonder that after the unfortunate mining accident in Sierra, Futura was looking for a replacement who would also boost morale, and Serge was chosen.

Name: Eve
Age: 34
Occupation:
Security force

Coming from a relatively wealthy family on Ganymede, Eve is probably the most serious person you will ever meet, who doesn't take no for an answer. She has never been intimate in her life, and never plans on being since she says relationships are an exploitable weakness. Early on in her life, she was a closed-off kid who was fascinated with biology, but as she grew up her childhood fantasies faded and she started working in security. Now she is in the professional security sphere. Eve has worked all over Sol, from Luna to Neptune, wherever pays the most. In the past few years, she has worked security for Futura inc. on their colony ships heading to the new worlds, and between trips on the colonies themselves, since they are prime targets for piracy and sabotage. Her current assignment is aboard the ill-fated Hermes heading for New Terra.

2.2 Characters

Name: Calvin
Age: 31
Occupation:
Shuttle pilot

Coming from a military background you think Calvin would be dead serious, but he’s the complete opposite. Calvin is a stout man, with piercing blue eyes who is the chattiest and friendliest man you'll ever meet. After an honorable discharge from a 10-year career in the Martian navy, Calvin was one of the better pilots around. For this exact reason, Futura invited him on to the Perseus heading out to establish Sierra. On Sierra, it was Calvin's duty to ferry all types of cargo and passengers down and up the gravity well of New Terra. In his spare time, he goes on sightseeing flights and is the most knowledgeable about the surrounding terrain of Sierra. The ship he flies, nicknamed "The screaming Firehawk", is a medium-sized ship capable of lifting multiple tonnes into low orbit and long-range atmospheric flights utilizing its wide body for lift.

Name: Rosie
Age: 27
Occupation:
Xenobiologist

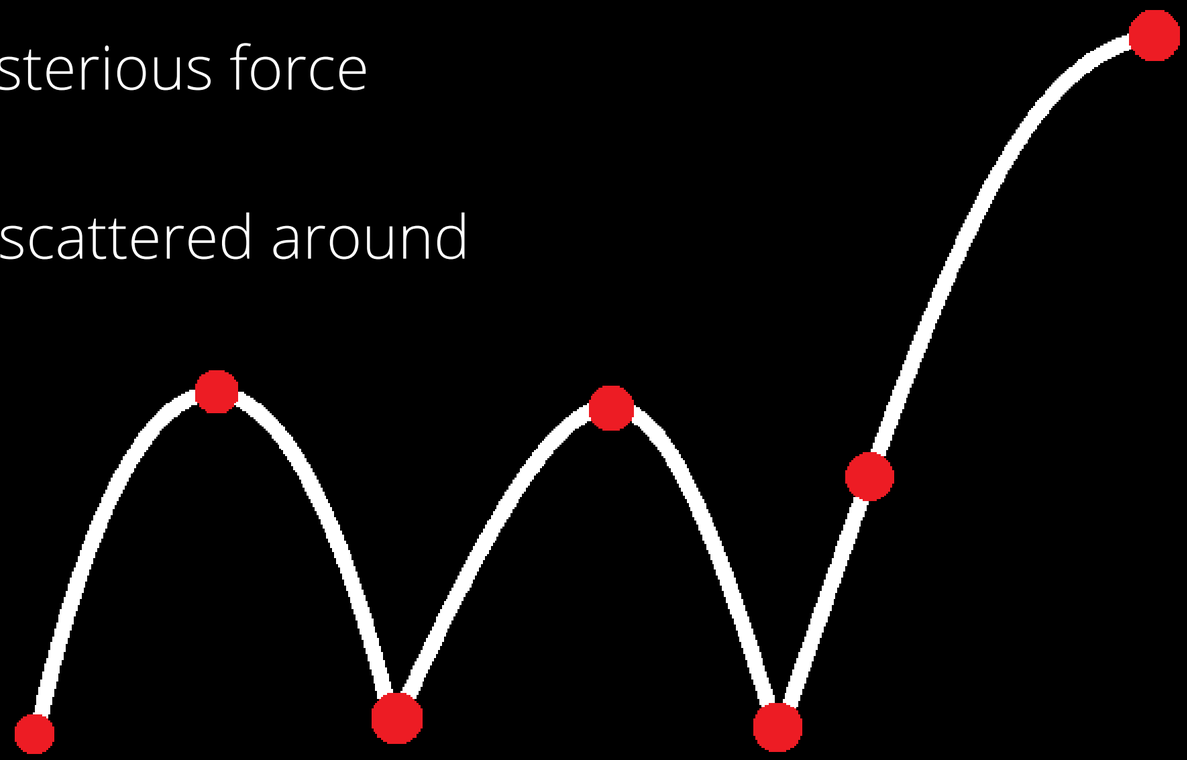
One of the younger colonists in Sierra at only 27 years old, Rosie is fascinated by anything alien and has the excitement to back it up. The Saturn gate opened when she was just 7 years old and ever since then she was sure of her future, she wanted to be a xenobiologist. Born on earth she had a normal childhood compared to her peers and after completing high school went on to graduate from university. After graduating her parents gifted her a white cat which she named Luna and has been her best friend ever since. Her childhood dream came true as she now is one of the first xenobiologists ever. Finding work after graduating was a breeze for her and even before she had graduated Futura approached her with the offer to board the Perseus. Beyond thrilled Rosie accepted the offer and now has been studying the local fauna with her cat Luna for more than 4 years, categorizing, classifying, and naming the hundreds of new species she has discovered on New Terra.

2.3 Story Structure

Outer Fringes' story will follow the seven-point story structure as seen in the graph. The points from left to right are:

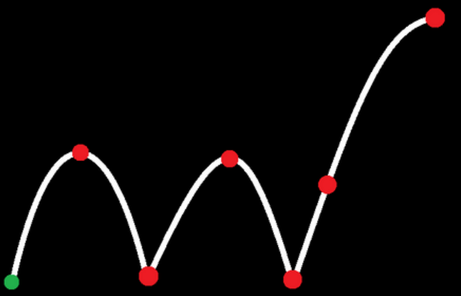
1. The Hook - Crash landing
2. Plot Turn 1 - Gain NEV and start delivering
3. Pinch 1 - Discover flight logs from crash
4. Midpoint - Calvin gets shot down by mysterious force
5. Pinch 2 - Futura issues curfew
6. Plot Turn 2 - Discover multiple artifacts scattered around
7. Resolution - Reunite artifacts

In the following pages each major plot point will be very shortly summarized and explained (the whole story would take up a lot of space and smaller plot advancements are not included).



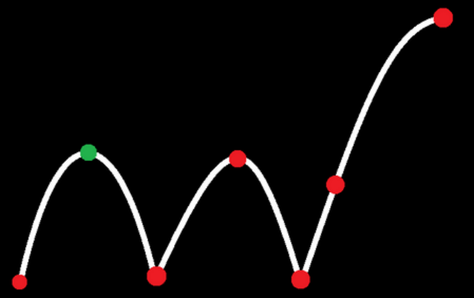
2.3 Story Structure

The Hook



With your new home in your sights, you board the colony ship, which will take you and hundreds of other people and supplies to build a new home away from home. After 3 long years, the ship is finally arriving, but something is wrong, you are awoken from suspended animation with alarms blaring and an evacuation order issued. You scramble to get into an evacuation pod as the ship is being pulled down to the surface of New Terra. During the launch, your pod is severely damaged from impact with debris from the ship and barely slows down before impacting the surface.

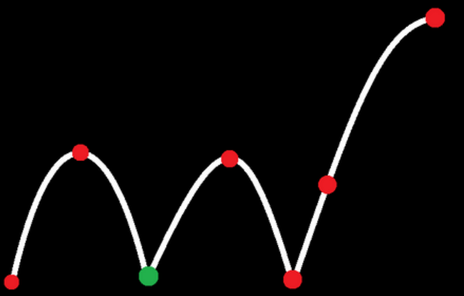
2.3 Story Structure
Plot Turn 1



You awake a few days later in a makeshift hospital. The doctor says you're lucky to be alive and begins to explain the severity of the situation. The ship crashed, but luckily most supplies and new colonists were able to evacuate and make their way down to the surface safely. You exit the hospital into the hastily constructed outpost from the leftover supplies. In the distance, you spot Pascal's garage and rush over there. You enter the garage to find no one there, but a blinking terminal with the message "Protocol activated: In case of my death". Your stomach sinks to the floor as you press proceed. The screen flickers and a pre-recorded message from Pascal appears. "If you're listening to this for one reason or another I didn't make it, I'm blaming the suspended animation, never trusted that tech." He laughs. "On the bright side, my garage survived. I know you've always wanted your own NEV to tinker around with so now is your chance. I'm giving you full access to the systems so tinker all you want. I'll always be with you. I mean my AI will be here, in this garage and your optical implant, to guide you with customizing your NEV ". The message ends and the garage glows brightly as all the systems turn on, and in the middle, you see his NEV, now yours.

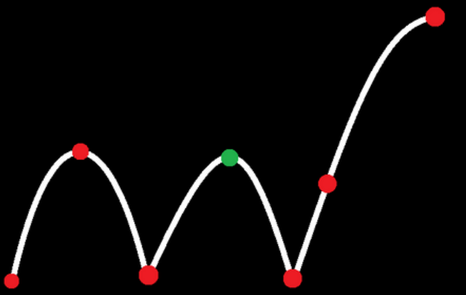
2.3 Story Structure

Pinch 1



While driving around and delivering you find one of the ship's black boxes in critical condition. You manage to recover parts of the data and decrypt it which reveals some clues about what happened to the ship. The data reveals that during arrival to New Terra, the Hermes altered its course to swing by Minerva to alter its orbit and allow it to drop cargo by simply releasing and allowing it to fall to the surface with parachutes, saving fuel. However, during this low fly-by Hermes' sensors noticed Minerva starting to glow intensively in infrared, and then a few moments later a massive radiation spike hit the ship. The radiation spike caused an emergency reactor shutdown, ship-wide power grid failures, and possibly permanent damage to the reactor which rendered it unable to restart. Without its reactor, the Hermes was unable to change course and plunged straight into the atmosphere.

2.3 Story Structure
Midpoint

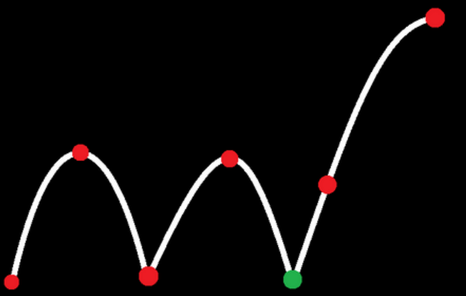


After finishing a top-secret delivery of a strange alien artifact and handing cargo over to Calvin, you stick around to watch his shuttle fly to orbit. Shortly after taking off, while showing off, Calvin gives full power to the engines, closer to the ground than usual. With a mighty roar Calvin's shuttle lurches towards the valley where Sierra is located, but as the shuttle keeps getting further away the rumbling doesn't stop. You realize that the rumbling is coming from an earthquake that keeps growing in magnitude until you hear a thunderous sound and are blinded by a bright streak across the sky. The next thing you recollect is flaming parts from Calvin's shuttle raining down into the valley over Sierra. Shocked beyond belief you get into your NEV and rush towards Sierra and the crash site.

Amongst the wreckage, you discover the alien artifact you just delivered completely intact but now emanating a purple glow. You grab the artifact and head home.

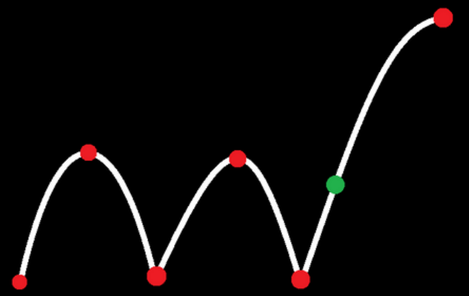
2.3 Story Structure

Pinch 2



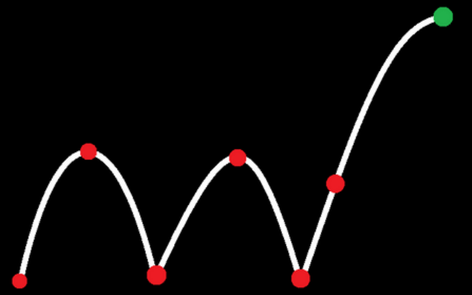
In response to Calvin's shuttle crashing and the earthquake, Futura issues a mandatory curfew until they deem it safe again. Everyone non-essential must stay inside, mining operations are suspended, and communication outside the colony is banned. Futura claims this is necessary to keep the colony safe and reduce panic, but there is another reason unknown to the colonists at the time. Shortly after Calvin's crash, Futura satellites in orbit detected massive magnetic field activity surrounding the planet. The magnetic field is so strong it jams communications and theoretically will destroy any ship that tries to pass through it. It seems that the planet has activated a containment protocol to keep artifacts on the planet. Currently, New Terra is surrounded by an invisible forcefield, and with the colonies still not self-sufficient, the future looks bleak.

2.3 Story Structure
Plot Turn 2



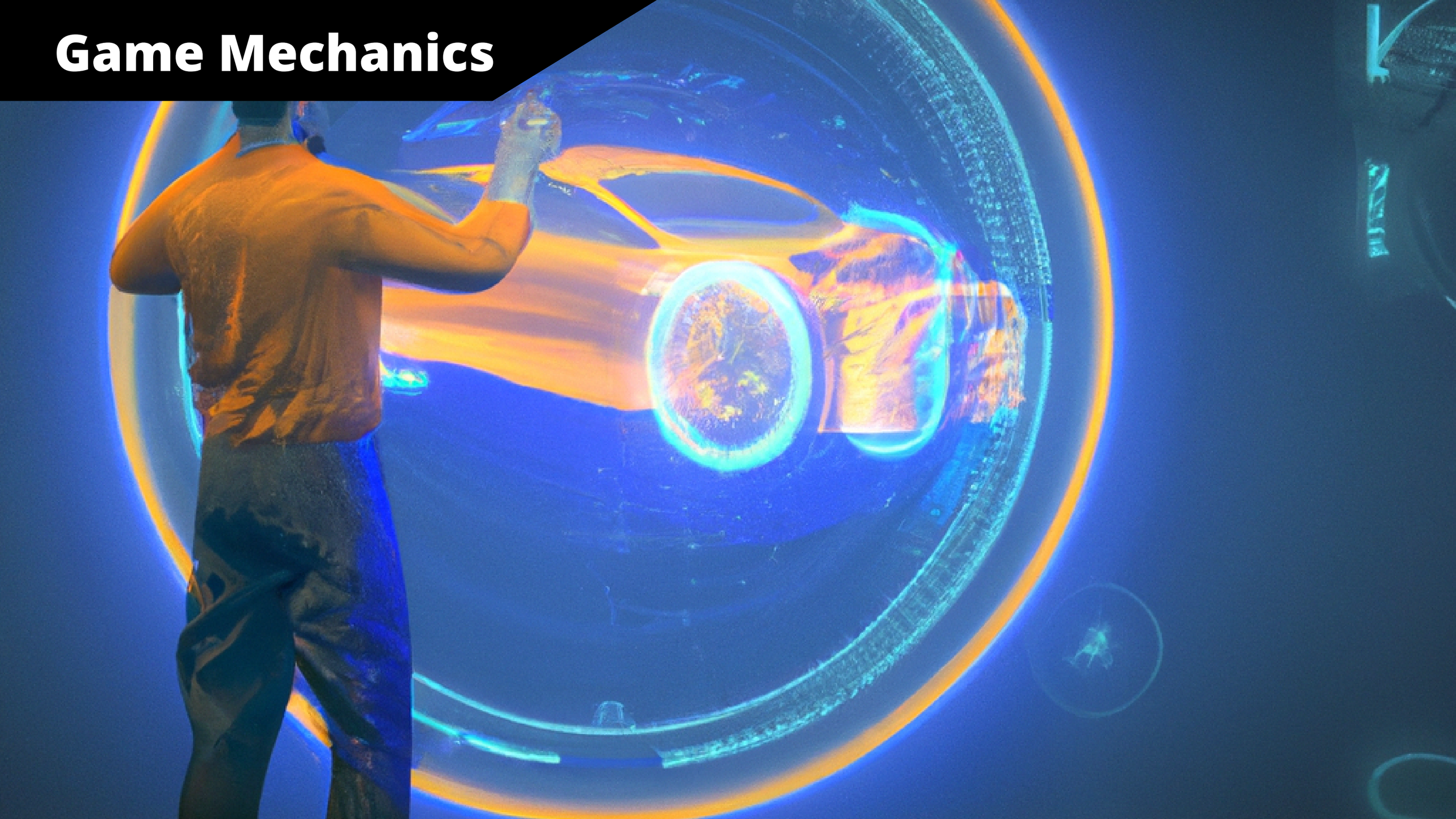
While bored in the curfew you analyze the artifact which looks oddly like a puzzle piece, and now is emanating an energy signature. You decide to calibrate your RAM scanner to the same signature and find 7 matches nearby. At the same time you hear chatter on the streets of the forcefield's existence, and at that point, your goal becomes clear, reunite all the pieces of the artifacts and hopefully save New Terra before it starves. As soon as the curfew ends you head out on the great search.

2.3 Story Structure
Resolution



Collecting all the remaining 7 artifacts was no easy feat, but you eventually manage it. Driving up the highest hills, down the deepest caves, and on the most challenging terrain imaginable, your NEV handled it. Now, as you reunite the pieces and line them up on your desk you notice they start moving into position on their own. With a snap, they click into place and the finished piece starts hovering and at the same time humming and glowing more intensively. Eventually, the glow is so bright you have to shield your eyes, and the hum is so prominent that the whole RAM workshop shakes. Suddenly the hum and glow stop. You open your eyes to find the artifact gone unsure of what just happened you turn on your electromagnetic scanner and see the forcefield is dissipating. You successfully saved the thousand upon thousand of colonists on New Terra.

Game Mechanics



3.1 Main Game Loop

Outer Fringes main game loop boils down to a simple formula:

1 Pick up delivery

Check the job board for delivery tasks the NPCs have requested. You can see the destination, cargo specifics, and rewards. When you find a delivery you wanna do, drive to the pickup location and collect it.

2 Transport cargo

After picking up the delivery, drive to the destination while abiding by the cargo specifics. On the way, you may pick up other deliveries to maximize efficiency or explore the world.

3 Hand-off delivery

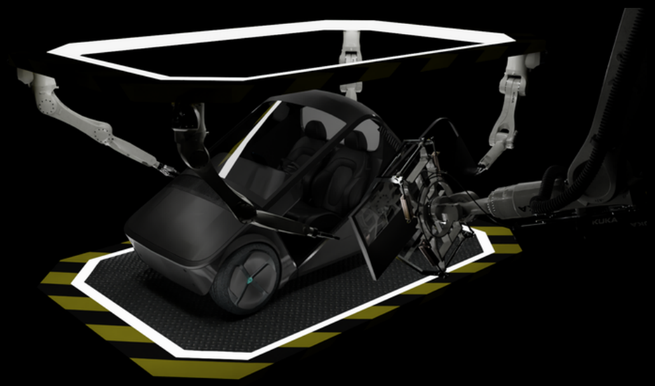
Arrive at your destination and hand off your cargo. If the cargo arrives on time and in good condition you will be rewarded and your reputation will increase.

4 Upgrade NEV

Using materials, either bought or from rewards, upgrade your NEV to improve your efficiency and unlock new types of delivery.

3.2 NEV Customization

Outer Fringes offers a vast variety of vehicle customization. By acquiring resources, the player has the ability to fabricate parts in his garage for vehicle customization and upgrades. Players can also buy parts from an in-game market from NPCs and buy exclusive cosmetic upgrades from a multiplayer market. Players will have full access to cosmetic and functional customization of the NEV. As for the upgrades, your quests, goals, and various terrain and environment specifics will affect the need for appropriate upgrades. For example, rougher terrain will require the player to adapt to the environment by changing the tire type, adjusting the suspension, and so on. A quest with a tighter time limit will motivate the player to act accordingly by improving their NEV's characteristics such as speed and braking power to reach the destination faster. The NEVs can be upgraded in the following ways:



Funtional

Brakes
Engine
Suspension
Tires
Steering
Drivetrain
Sensors
Battery

Body

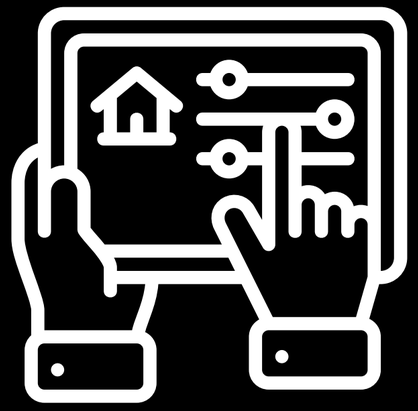
Liveries
In-depth color customization
Body kits
Frame/shape
Neon kits
Lights

Interior

Operating system
Interior materials & color
Lighting
Steering wheel
Seats
Comfort & convenience

3.3 NEV Automation

Later in the game, you will be able to automate NEVs to complete deliveries for you. To automate a NEV you have to add the necessary hardware and software such as sensors, and a specific operating system. After those upgrades, you have to program the vehicle where to drive and what to do. These automated NEVs will only be able to complete specific deliveries from mines, greenhouses, and other facilities. These select facilities constantly produce resources and they need transporting to refineries, storage, and other places. If you're able to transport all the resources a facility is able to produce you can upgrade it by spending resources and money to increase its output. This mechanic allows the player to earn passive income and incentivizes them to design optimized vehicles for these tasks.



3.4 Quests & Story progression

In Outer Fringes, the main story progresses in 2 ways, with story-type deliveries, and sometimes world events. Story-type deliveries are always available and are marked to differentiate them between regular deliveries and progress the story when completed. Story-type deliveries progress the game story either by gaining an artifact piece, providing the player with information, unlocking another story delivery, or causing a world event, such as an obstacle being cleared. The second way the story can advance is with world events. These world events happen at a specific time or after achieving set circumstances. For instance, Calvin's shuttle crash is a world event that happens after a story-type delivery is complete. Another world event is the force field being discovered during the curfew, even though it isn't visible to the player it still counts as a world event since it changes the circumstances the player finds themselves in.

Another storytelling mechanic in the game is side quests. Side quests are optional and enrichen the game's story and depth. They usually consist of multiple deliveries tied together to tell a story. For instance, someone might need you to source some exotic spices from various locations for their signature dish and in the process, you get to learn more about their backstory, and of course, get rewards.

And to top it off Pascal's AI will chime in sometimes to comment on the situation and provide some background story to the player.

3.5 In-Game Economy

Outer Fringes facilitates 3 currencies. Two of them are in-game, off-chain - Emnia (❖EMA) and Solar (✧SOLR), and the third one is the native Outer Fringes ecosystem token - Fringe Coin ($FRNG), which is explained in depth within the monetization model PDF.

Emnia (❖EMA) is the widely adopted currency of New Terra while Solar (✧SOLR) is the official currency of the Sol system, and they are solely used, spent, and earnt (with the exception of multiplayer racing wins) within the single-player story mode campaign. Every finished quest, side quest, or completed delivery rewards the player with ❖EMA and possibly ✧SOLR. ✧SOLR can also be bought with real money.

In between deliveries or other activities, the player can use their ❖EMA balance to purchase vehicle upgrades ranging from functional to cosmetic. However, the functional upgrades need to be crafted in the garage from acquiring resources. Resources can be bought from the New-Terra scrapyard or received from deliveries. Crafting vehicle parts and upgrading your NEV means that future deliveries can be completed with higher efficiency.

Another use-case for ❖EMA is the ability to purchase autonomous NEV's to complete deliveries for while Idle, which also adds another passive revenue stream for the player.

✧SOLR is considered a premium currency and is primarily used to speed up the game. Part manufacturing and upgrades take some amount of time to complete but by spending ✧SOLR the player can speed it up. NEVs also have batteries that when empty will have to be recharged before being able to drive again which takes time, this process can also be sped up by spending ✧SOLR. The battery mechanic is in the game to ensure that the player can not simply complete the game in one sitting and so encourage more strategic play.

3.6 Multiplayer aspects

After your first delivery in the single-player campaign, Pascal will introduce you to the New Terra Underground Racing Club, where all Outer Fringes online players can connect and participate in racing events. The player will be granted a brand new stock NEV as their racing NEV.

Multiplayer mode utilizes the game's ecosystem token - Fringe Coin ($FRNG), which allows players to participate in racing tournaments as well as purchase/mint special NEV upgrades in the form of NFTs, which can later be traded.

Racing will contain multiple game modes, therefore plenty of play-to-earn opportunities:

Standard race

A race of 3 to 8 players where after each race the players current ranking updates in a leaderboard. The ranked system contains multiple division and at the end of each season the best performing players get rewarded.

1v1 race

Players can go through a quick race which includes the ability to bet $FRNG on their race, where the winner takes all. Users can look for races through skill-based matchmaking or invite friend for a 1v1 race.

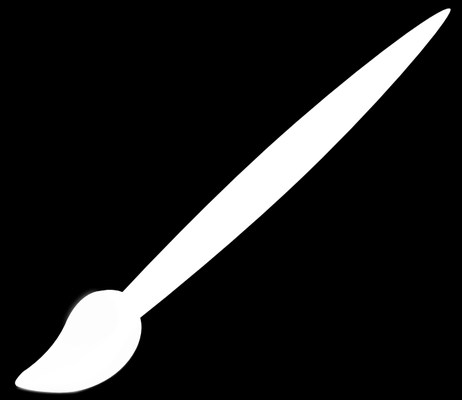
Tournaments

Where players will pay the tournament entrance fee and go head-to-head with each other for multiple rounds until the last race where the winner receives the entire entrance fee pot. Official community tournaments will be organized with bigger prize pools but player can create private tournaments

Moodboard and style

4.1 Game Style / Theme

Outer Fringes is set in the far future, in the 23rd century. Since the game takes place on a colony on the outer fringes of humanity, the general design is highly functional industrial with modern tech mixed in (a modern equivalent would be retrofitting an old house with smart home tech). For instance, Sierra, the colony where the main story takes place, is built from shipping containers and truss segments (cheap, functional, and effective) but has modern tech retrofitted inside, such as communication, holographic displays, and more. Some buildings and aspects such as the RAM workshop and NEV are futuristic since they have been shipped in from our solar system, not built on site.



4.2 General setting moodboard

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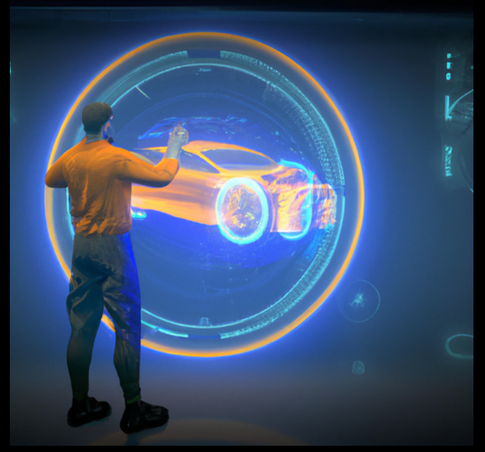
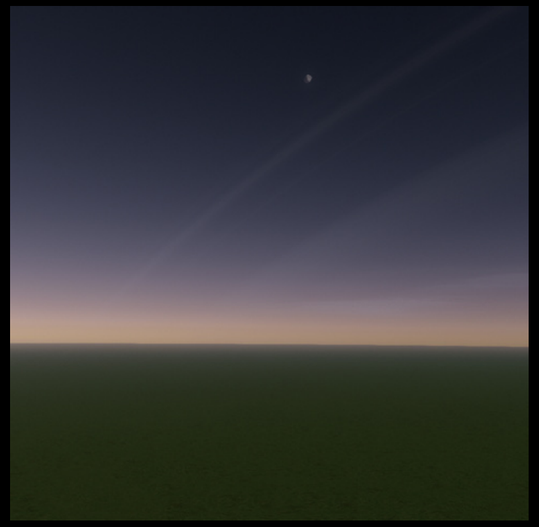
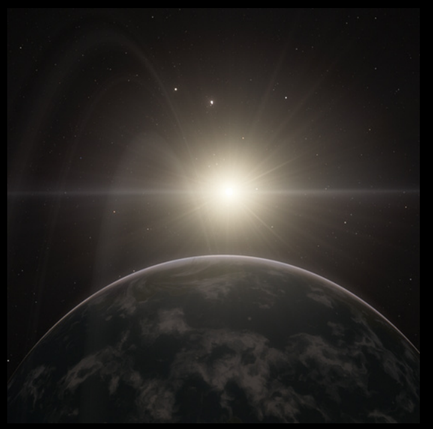


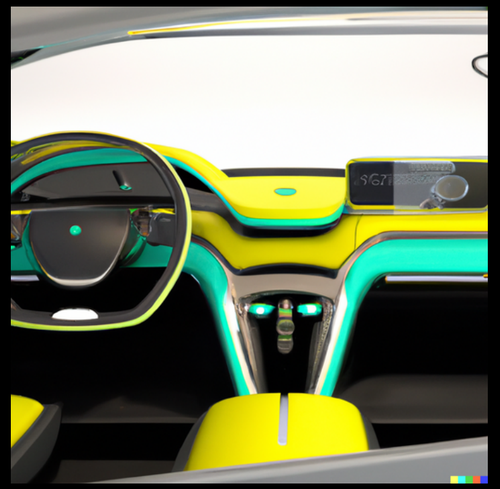


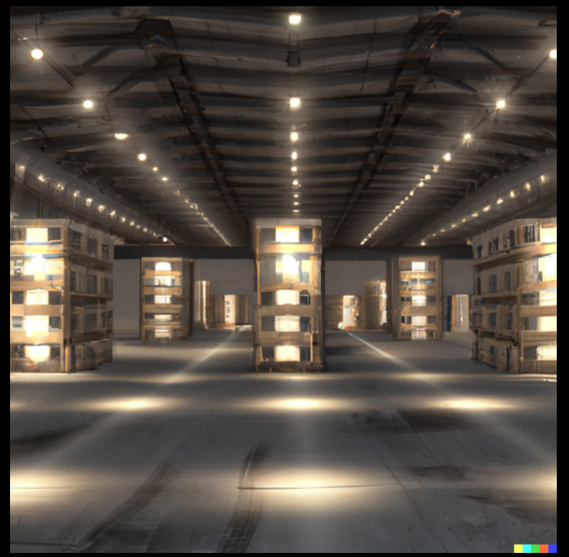


4.3 Art style moodboard

Outer Fringes art style is categorised as:

- 3D rendered
- Soft lighting
- Mostly simple textures
- Soft shadows
- Futuristic transparent UI





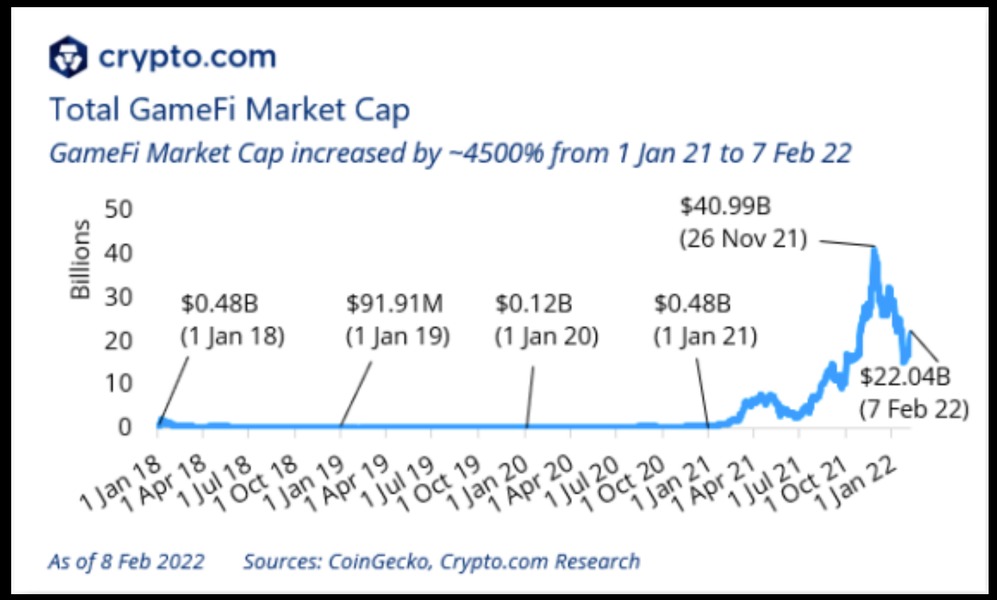
Feasability Analysis

5.1 Market Research

When researching the market for a game like Outer Fringes, we have to take into account that we are not only aiming to acquire a market share from mobile gaming but the GameFi industry as well. Considering the fact that we are tackling two gaming sectors at once, we'll analyze both.

In 2022, smartphone games accounted for roughly 55.19% of video gaming revenue worldwide, which means that mobile gaming is currently dominating the market. This year we have seen 25.5% year-on-year growth and mobile gaming will bring in $70.3 billion in revenue. In comparison, PC games saw a revenue of $32.9 billion, and console games saw a revenue of $34.9 billion this year. As smartphone usage continues to accelerate on a global scale, mobile games revenue is on track to surpass the 100 billion dollar mark by 2023. For this very reason, it would be a suitable decision to create this game for mobile.

After examining several sources, we feel that the GameFi market is still a fairly new idea with an enormous upside potential that is mostly unexplored. As of February 11th, 2022, CoinGecko estimates that GameFi's market cap is around $22.7 billion. For the majority of games, if not all of them, the Daily Active User count is an essential measure. A sizable population of active players is typically required for a game to be successful. DappRadar estimated that there were 1.09 million daily blockchain gamers as of 13 February 2022 and the number of gamers playing blockchain games is increasing consistently at a very fast pace. The major objective of Outer Fringes with reference to GameFi will be to stand out from other projects by attempting to put the "Game" part before "Finance" or at the very least, maintain a good balance. Many contemporary GameFi applications place an excessive emphasis on P2E, which can often make playing feel like a chore. We believe that this is the fundamental reason why many of these start-ups fail.

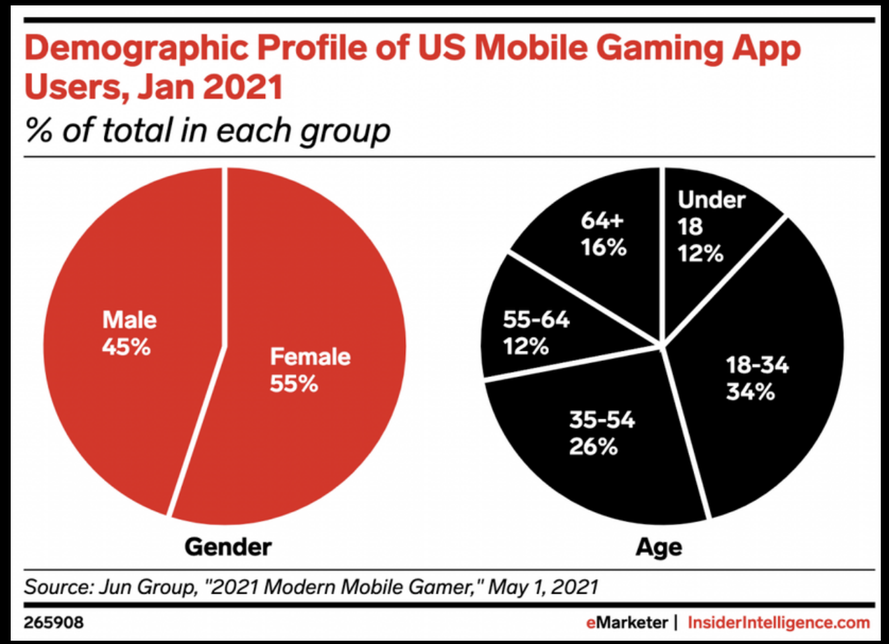


5.2 Persona Research

While evaluating our target audience, we should go about it in the same way as for the market research by not only looking for people who play games for the GameFi aspect but as well as people who are genuinely interested in a story-based mobile game. This could definitely be viewed as an advantage for Outer Fringes since the multiplayer(P2E) and single-player(story-based) modes are not directly tied together, therefore each one of the groups can play and focus on the game mode that matches their playstyle more. Now let's statistically analyze the average competitive GameFi gamer, the story mode gamer as well as the average mobile gamer.

After thorough research of the mobile gaming market, we realized that as of 2021 the userbase is mainly dominated by China, India, and the United States in terms of total downloads, with 98 billion, 26 billion, and 12 billion downloads. Besides the USA, it’s clear the Asian market still dominates with over 1.3 billion mobile gamers in 2021, so if we want to achieve global success, we must successfully market our game in China, Japan, and India. However, it takes some local expertise and research to comprehend the subtle differences between a Chinese blockbuster game like Anipop and the western equivalent, Candy Crush.

We also take into account that GameFi projects are currently far more acknowledged in the western world, however, there are clear indicators that it's not long until we start seeing this in Asia too. For example, Japan is starting to consider this market, as their major game companies such as Square Enix, Bandai Namco, CyberAgent, Akatsuki, and gumi have already shown interest in expanding into blockchain gaming. According to the age distribution of mobile gamers, it is a good thing that the majority of these players (34%) are between the ages of 18 and 34, which also happens to be the age group that uses cryptocurrency and GameFi the most.



5.3 Marketing Plan

To ensure increased exposure across all channels, the development team is going to collaborate with a professional marketing team for the initial stages of the project. The core team is also devising a strategy to attract a team of influencer and mutually-beneficial partnerships that would propel the game's reach.

The decision of partnering with a marketing agency rather than bootstrapping was based on the common understanding within the core team that for a project at a scale of Outer Fringes, constant promotion & increased marketing expenditure is needed to attract the critical user base. Cohesive marketing initiatives across all channels have shown to be a successful strategy for attracting the ever-growing investor & player base that are entering the DeFi & NFT-gaming space, as well as those who are already established in these markets

Promotional material as well as a game trailer is already in the works. Multiple online promotional events, including airdrops are planned for the Outer Fringes multiplayer mode for maximal community engagement.

With the above being said, excessive marketing and promotion has been put as one of the top priorities for Outer Fringes on par with the development of an engaging, revolutionary gaming experience.

5.4 Project Roadmap

The Outer Fringes project has developed a robust roadmap with focus on continuous utility of the native $FRNG token & an augmented, engaging NFT gaming experience. Below, you may find the preliminary roadmap for the initial stages of the project. The roadmap is subject to change & the document will be updated accordingly.

Stage 0

TEAM DEVELOPMENT
PARTNERSHIP ESTABLISHMENT
MATERIAL BUILDING
BRAND DEVELOPMENT
STRATEGIC EXECUTION PLANNING

Stage 1

START OF GAME DEVELOPMENT
START OF NFT DEVELOPMENT
WEBSITE LAUNCH
FIRST MARKETING EFFORTS
AMBASSADOR PROGRAM
COMMUNITY CREATION

Stage 2

$FRNG IBCO FAIR LAUNCH
DEX LISTING AND LIQUIDITY LOCK
LISTINGS ON CMC & CG
PARTNERSHIPS AND MARKETING
ADDITIONAL LIQUIDITY LOCK & IBCO CLOSURE

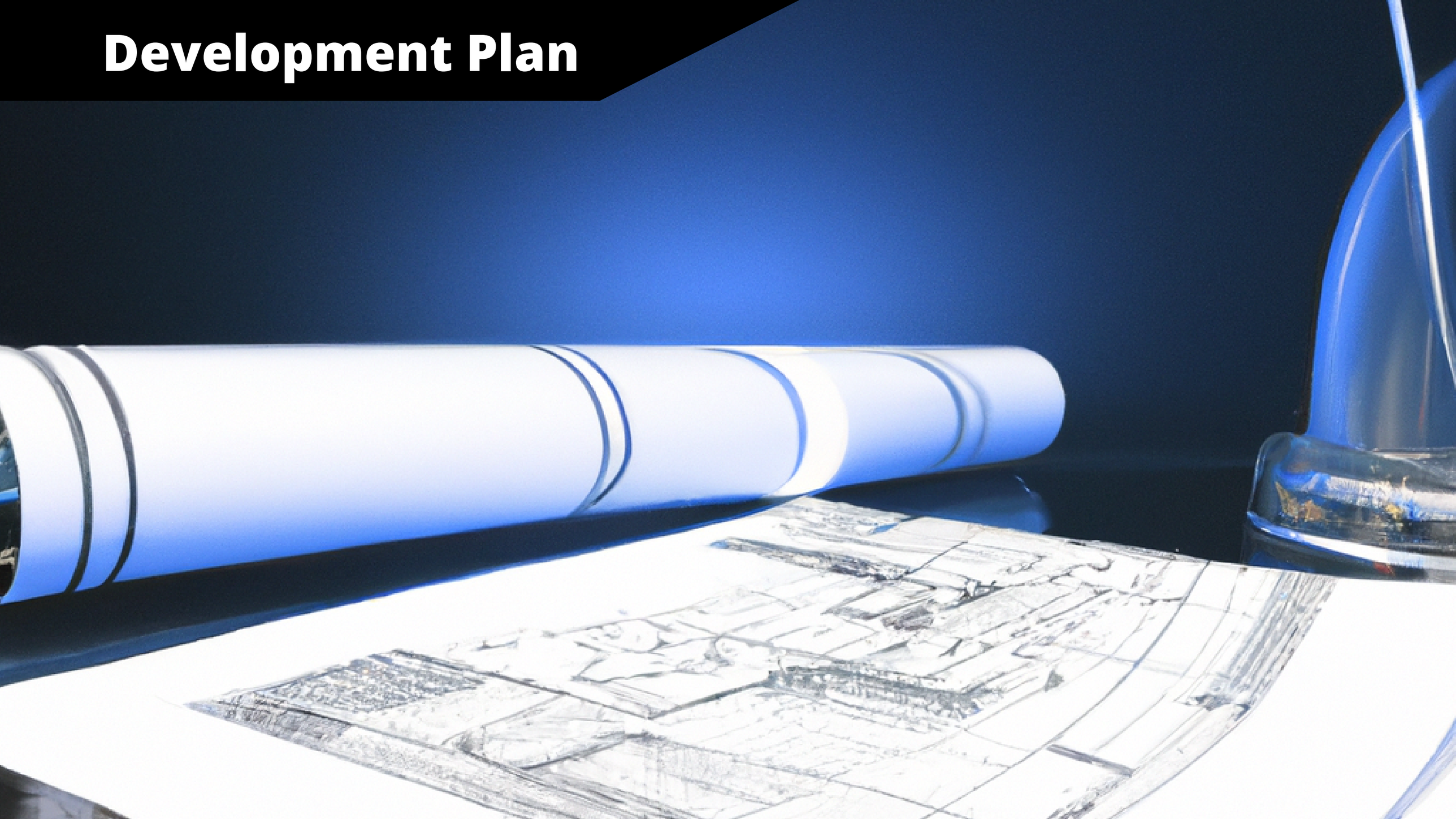
Stage 3

$FRNG NFT DROP
NFT MINTING PLATFORM RELEASE
GAME ALPHA RELEASE
CONTRACT AUDIT
APPLICATION FOR CEX LISTING

Stage 4

CROSS-CHAIN BRIDGE
V1.0 GAME RELEASE
NFT MARKETPLACE RELEASE
INFLUENCER MARKETING
GAME EXPANSION

Development Plan



6.1 Development Team

For a game like Outer Fringes, a lot of factors are at play regarding the project development. There are several slight differences between creating Web 3.0 games and conventional games. Similar to how the majority of mobile game developers have not yet been very active in the blockchain gaming sector, many web 3.0 / smart contract developers have little to no expertise in game creation. The development team would need to create excellent communication from both sides and extremely well-coordinated goal execution for our project to succeed. We would need to examine many 3D artists as well as talented UI/UX designers in order to achieve our desired game aesthetic and art style. The current team necessities are just a rough estimate of what we might need in the team to successfully get our project idea off the ground and into development. Just like any other project, the end result may differ from the starting goal due to the possibility of new ideas and obstacles during the development process. The starting roster for our team might be as follows:

- **Project Manager** - A seasoned project manager to satisfy budget and deadline targets. He will assist in assigning team members the proper responsibilities, monitor their progress throughout development sprints, enforce teamwork, etc.
- **Mobile Game Developer** - A native mobile game developer for iOS and Android or a hybrid mobile game developer for cross-platform apps. They will implement the game logic and ultimately produce the game aspect.
- **Smart Contract Developer** - For implementing the necessary smart contracts in regards to game flow, NFT collections, and the $FRNG token alongside the IBCO launch contract.
- **Animator and Graphics Designer** - A 2D and 3D designer to design game characters and visuals. They will apply the visual and audio effects and propose prototypes of the game design structure.
- **Sound Engineer** - Responsible for creating the game's soundtrack, collecting, editing, and creating sound effects, and ambient effects. Adds to the overall Outer Fringes atmosphere.
- **DevOps Engineer** - Responsible for more efficient development, source code version control, CI/CD, better team collaboration, etc. Will integrate the industry-standard practices to build the game faster and meet market requirements swiftly.
- **App Tester** - Responsible for ensuring the game runs as planned by running test routines, including security testing, penetration testing, unit testing, integration testing of different modules, etc.
- **Business Developer** - Responsible for designing a business plan, preparing the necessary documents, and suggesting improvements while working closely with the product manager and the outsourced marketing agencies.

6.2 Development Costs

Mobile games are generally created for the AppStore (iOS) and Google Play (Android), and the costs range from $3,000 for simple mini-games to $150,000+ for more complex, multi-player games. Outer Fringes will be on the higher price spectrum, as there will be a complex story mode with a monetized multiplayer mode. Prices may also vary depending on the additional options integrated, such as payment systems or some administrative functions. For example, these features are 20% more expensive for iOS than for Android. We will not only be developing a traditional mobile game but the cost will be added from creating NFT collections, $FRNG smart contracts, and a native NFT marketplace. It is a difficult task to get an accurate assumption this early in development, but we will attempt to make a gross approximation of the development costs.

Let's take a look at the development cost of a more complex mobile game like Pokemon Go (Development costs are higher because the game uses augmented reality):

- Client application development and game design – $ 100,000
- UI/UX – $ 6,500
- Backend – $ 80,000
- Server costs – $ 150,000
- Testing – $ 50,000
- Animation – $ 90,000
- Sound design – $ 20,000
- Management – $ 20,000

However, we approximate that for Outer Fringes the total cost can be narrowed down to about $150,000-$180,000 if we have good budget management and the developers are outsourced from non-US countries since USA developers are far more expensive.
Nevertheless will need to keep a good balance and not compromise the game's quality in exchange for a lower cost.
Also, the costs above are meant as a reference point for our project's cost ratio rather than actual numerical values, therefore it should be taken with a grain of salt.

6.3 Development Timeframe

This would be the preliminary development timeframe which will lay down a rough idea of the process. Once again this is just a gross approximation and multiple variables may change the total timeframe. The project manager will be responsible for identifying these variables and tweaking the development process accordingly.

Stage	Description	Duration
Game design document	A broad description of the game, information about its target market, platform (Android and iOS), genre, monetization choices, scale, style, characters, etc. are all included in the paper implemented by the game's designer.	1 week
Technical specification	Examining game physics, game object data, code objects, a control loop, and game mechanics. The specification allows one to estimate the total cost of the project. implemented by the lead programmer.	2 weeks
Prototyping	General sketch of the game without specifics or artwork that enables the team to grasp the concepts and evaluate how convenient the gameplay is.	1 week
Game design	Creating all 2D/3D assets, characters, environment, and interface elements that determine the visual perception of the game.	3 weeks
Game programming	Writing program code, smart contracts, setting up a server and database as well as the implementation of game graphics by embedding 2D or 3D content and VFX.	2+ months
Sound design	Creating music, working with interface sounds and other sound effects for maximum quality and immersion.	1 week
Testing	Detecting and reporting minor/major malfunctions or incorrect operations of certain game elements. Game alpha testing opens to a selected group of public testers in the community.	1 week
Publication	The game being posted on the relevant platforms, Google Play Store, and App Store. The user gains access to Outer Fringes.	1 day