Design Document

Contents

LuxSkill, LLC

Overview

Paralux is an online multiplayer game built on the Stellar network and powered by the *StellarGame* ecosystem. (See: "*StellarGame* Design Document")

Players take part in creating unique spacecraft and mint them into NFTs that serve as playable avatars in the game. Once players have one or more avatars, they can choose which one they want to enter a game with.

The game centers around player vs player combat between ships in free-for-all or team vs team modes. Using a combination of skill and the ship's technical attributes, players can defeat enemies and collect resources to customize their abilities.

During gameplay, there may be events, chance rolls to win, and opportunities to purchase NFTs or other tokens that can modify personal aesthetics, temporarily boost players' abilities, or craft more powerful ships. Teams may participate in fighting rounds over game objectives to obtain rewards.

Paralux will offer different ship types in sets of "collections"; each collection will be offered for a certain amount of time and/or a certain limit which may be minted in said collection.

Guests may be able to play the game using a temporary avatar that is not actually an NFT but a basic ship used by new and aspiring players. ("Free to play")

Avatars (NFTs)

Paralux avatars are customizable spaceship NFTs with unique names and attributes. When an avatar is minted, details like color, wingspan, etc are "immortalized" on the Stellar ledger and the representative NFT is sent to the player.

Players can purchase an avatar with or without certain optional attributes for some fee or take part in an auction to purchase an avatar through a decentralized smart contract, DEX, or centralized smart contract that does not hold a user's assets in the interim of the auction. Players can decide to keep their *StellarGame* NFTs or put them up for sale on the Stellar DEX through the *StellarGame* market interface.

Each ship has unique "innate" technical attributes that may help a player improve their ship in some ways while another player might have an innate disposition for a different tactic. These attributes can be determined randomly at mint time or determined more reliably by crafting a ship with rewards.

Players can view and share their avatars through the *StellarGame* view/share interface where other Stellar network users can make offers for the asset, and anyone on the internet can have a link to view it.

Customization

Players create their avatars through a user interface that gives them the power to customize their spaceships into unique and personalized NFTs. Users choose a unique name for their ships and may also select optional add-ons for a collection that support the 3D artist. Here is an example list of some ship attributes:

- Colors (e.g., chassis, accent, laser, thruster, etc)
- Form   (e.g., wingspan, weapons, cockpit, etc)
- Combat Stats (e.g., armor, damage, maneuverability, etc)

Some attributes may be customizable and some attributes are determined upon minting, using a uniformly designed pseudo random number generation (from a centralized or decentralized smart contract) that ensures each ship is relatively equal in overall playability and power. This creates diversity in the environment and in demand, given one's preferred playstyle.

Minting Process

The minting process takes place through the *StellarGame* decentralized wallet interface where users sign a transaction, sending payment for the NFT either through a centralized or decentralized smart contract. The NFT may be delivered as part of the signed transaction or be sent upon receipt of successful transaction (this may use a claimable balance). Once the NFT is successfully minted, players are taken to the login interface where they can choose from available avatars in their wallets.

If random attributes exist on the collection being minted, users may receive the NFT *after* the initial transaction to create it or as a claimable balance in their wallets. Keeping the NFT's attributes hidden ensures the system will not be exploited by a user who tries minting until they receive an NFT with attributes they want. If a claimable balance is used to send players their NFTs in a two-step fashion, the user interface will prompt the players to let them know there is a claimable NFT awaiting them.

Login Process

A player joins the game by proving ownership of their connected Stellar wallet. Once this is achieved, a session can be created, for example, by using SEP-10. (See: [Stellar-protocol/sep-0010.md at master · Stellar/Stellar-protocol (github.com)](https://github.com))

From the selection and login screen, they can choose one of the avatars in their wallet to join the game. A player logs into the game by proving ownership of their avatar. Generally, this will be done from the server-side interface.

Payments

Paralux NFTs are the beating heart of the developers and artists behind creating and sustaining the game. Besides being novelties and collectables in the Stellar ecosystem, they can be traded amongst other community members.

Each spaceship collection can have up to 1000 available NFTs for purchase and may or may not have a timeframe within which they are available. A collection may have a set, variable, or auction starting price for a new avatar.

Add-ons may exist for a collection, giving the player/collector an opportunity to claim a less common avatar from that collection.

Payment for NFTs, add-ons, or any other purchases will be taken in the form of Stellar's native token XLM or Circle's USDC on the Stellar network.

Gameplay

When a player joins any type of game, their spaceship avatar is loaded into a constrained 3D battlefield with obstacles, space stations, asteroids and other objects. The player starts with their ship's innate attributes and characteristics for combat, such as was defined at the time of minting. The player then has opportunities to level up their ship's attributes through various activities which will help them or their team achieve the game's goal.

To accommodate different playing styles during a round, users can level up their ships by gaining energy in three different ways:

- By collecting energy from other ship's thrusters
- By collecting energy from a destroyed ship
- By mining asteroids for energy

As a player levels up by acquiring more energy, they have the choice to which technical areas of their ship they want to allocate resources to; but watch out! Maneuverability decreases due to maintaining capacitor stability and fuel load. Balancing your ship's abilities might not be as straight forward as it seems.

When a player is defeated, they lose their progress, their ship's energy is scattered, and depending on the game mode, they are respawned into the game to get back into the fight or prompted to join another game.

Modes

"Free-for-all" mode is where the player is on a battlefield fighting against all other players connected to that particular server instance.

"Team-vs-Team" mode is where players join a game and are assigned to one of two or more teams, fighting against each other on a battlefield. An objective may exist where the teams fight for a controlling interest.

Perspectives & Controls

Spaceships will maintain a first or third-person perspective depending on the user preferences. An alternate first-person perspective in the form of a virtual reality experience would put the player in the cockpit of their spaceship.

Controls will include simple keyboard and mouse bindings with extra options to support VR headsets, controls, and joysticks to give a rich player experience.

In-Game NFT Purchases

Opportunities to support the game developers, artists, and server maintenance costs may present themselves in the form of in-game purchases. We understand the importance for these items not to affect skill-based gameplay, so these items would be limited to changes in an avatar's appearance or temporary boosts in ability or effects that do not corrupt gameplay balance.

Consumable items would have a temporary effect, while persistent items would have an effect until another variant of the same effect is applied again.

Payment for in-game purchases or any other purchases will be taken in the form of Stellar's native token XLM or Circle's USDC on the Stellar network.

In-Game NFT Rewards

Players may earn in-game rewards as promotional gifts in return for winning a round or completing some tasks. Some rewards may be used to create new NFTs that are built from aggregate NFTs (e.g., an NFT reward may be used to increase stats while creating a new avatar).
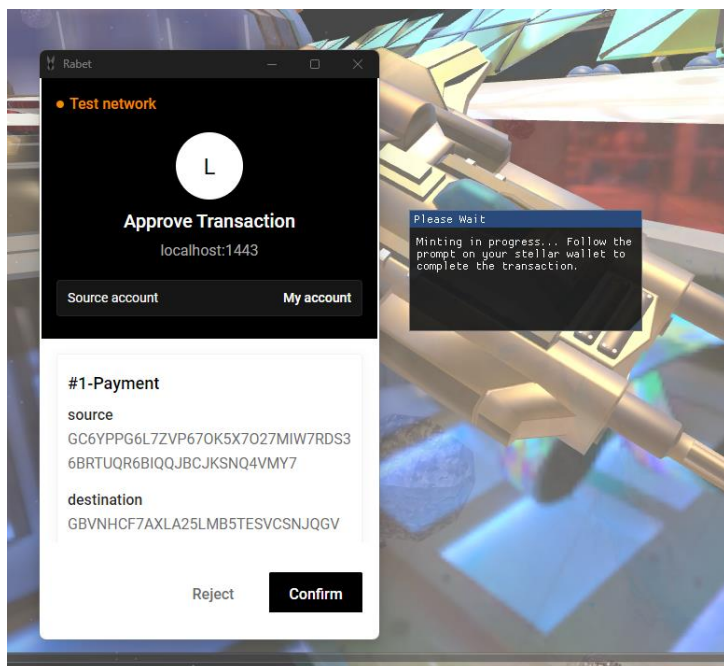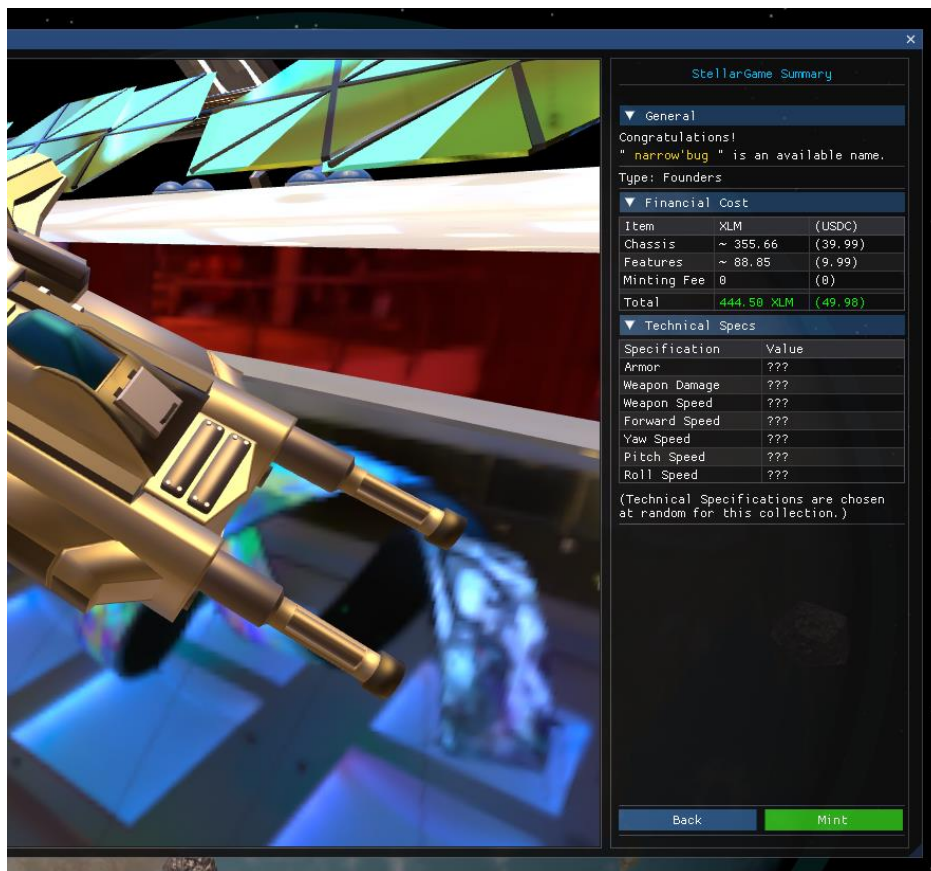
Proof-of-Concepts

Avatar Creation

The UI for customizing your NFT before minting it.

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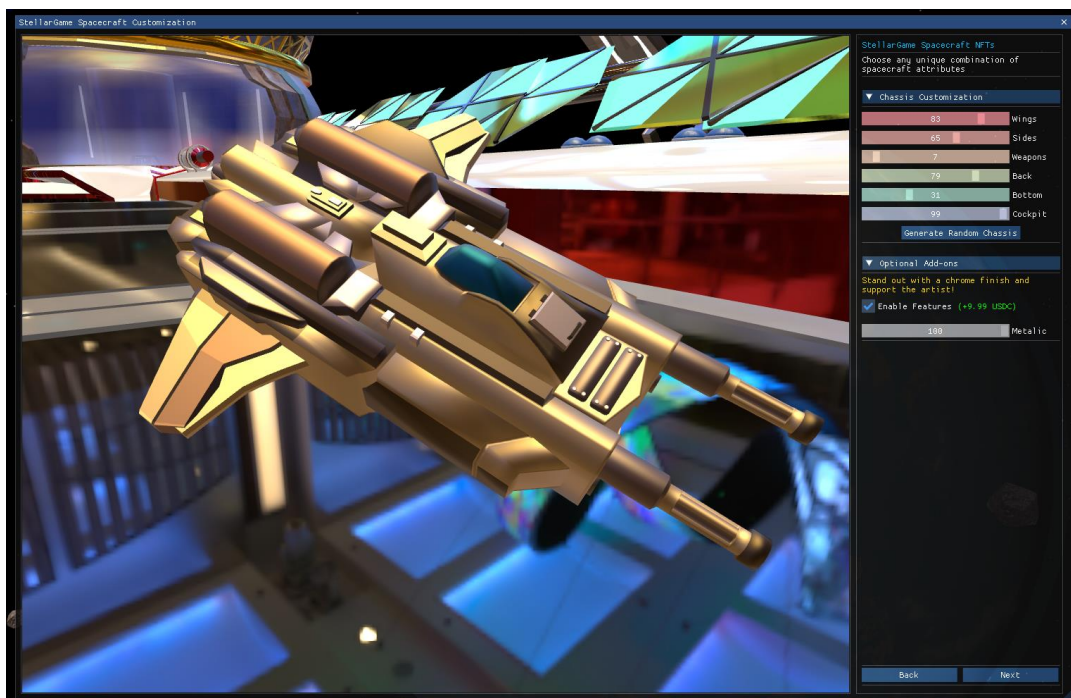
Once customized, the summary and payment details are
presented to the user. If minted, the TX is submitted.
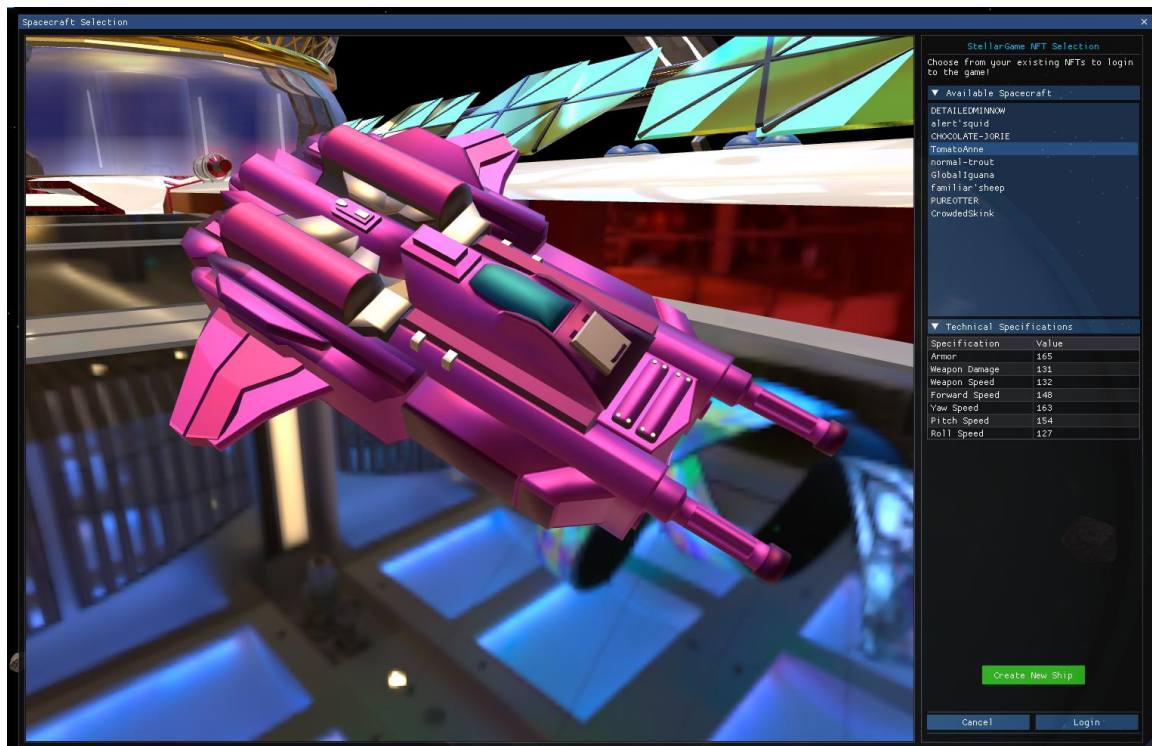
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After a successful minting, any details about your avatar will be displayed before taking the user to the login selection page.
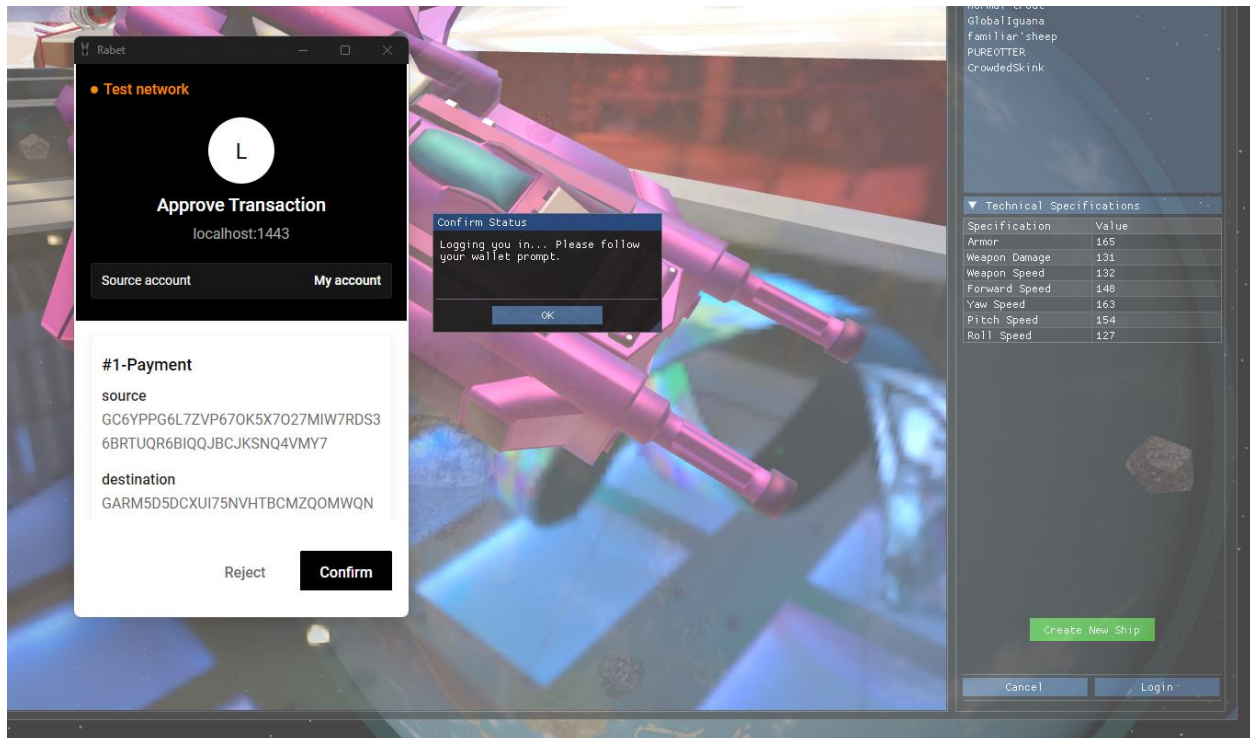

Avatar Login

Login selection allows you to choose from the avatars you own to log into the game with. Any details about the avatar will also be displayed.

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When logging in, the user may be prompted to prove ownership of their asset.

Gameplay

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Artwork

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