



LIGHT YEAR

◇ WHITE PAPER ◇

A BLOCKCHAIN BASED SPACE STRATEGY GAME



<https://lightyear.game>

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SUMMARY

What is real, what is un-real? With *Light Year*, we want to bring the most mind-blowing experience to people who love space exploration.

Well, physically, we can't send you to space with a rocket yet; however, thanks to the newest development of blockchain technology, here we are able to create a virtual world, a first-of-its-kind space-themed metaverse, where you can explore unknown territory, and compete with thousands of other players online.

You are the commander! Manage your fleets, build new spaceships, recruit heroes, mine for resources, and defeat the invaders! To start playing the game, all you need to do is to stake some blockchain assets (for example, LP tokens or USDC) to the game. *Light Year* is free to play, as you retain your staked assets when you exit from the game.

Moreover, all in-game assets are created as NFT (Non-Fungible Token) in the blockchain. You have the full-control of them, and are free to trade them with other players.

Finally, this is a game where you can “play-to-earn”. Based on battling results and other metrics, we reward players with *LC* (Light Coin), which is the governance token of the game; and as an early adopter of the game, you have a very good chance to earn more.

The game will eventually be governed by the players, and *LC* holders make important decisions of the game's economy through voting. With our hard work, together with the help of the community, *Light Year* will evolve into a virtual world that blurs the real with the unreal.

HOW THE UNIVERSE IS DESIGNED

The universe is composed of planetary systems. Each player lives in their own planetary system, which contains a star, a base planet, multiple advanced planets, and unlimited asteroids.

Inside the System

Players have their own **base planet**, which produces natural resources, depending on the player's hash-rate.

Players can build or upgrade their mining rigs and defense units in the base planet. Moreover, when a player's fleet is around their base planet, that player can change the fleet's formation.

Players discover **asteroids** through exploration. They can then send ships to asteroids to mine additional resources. Sometimes, random events are triggered, such as the player's fleet being attacked by a UFO.

As players climb the technology tree, he can then colonize **advanced planets**. Advanced planets provide players additional natural resources, or more bases for producing ships.

All the planets and asteroids revolve around a star, and distances between them are in the measurement of kilometers. It usually takes 1 to 60 minutes for user's fleets to transport between base planets and asteroids, depending on the current distance.

Outside the System

Players must rely on **warping** to transport their fleet from one system to another.

Warping usually takes hours, depending on the player's system's distance to the target, and the distance measurement is light years.

Through warping, users can then trade or attack other players. There is one **trading hub** in the center of the universe, and when a user transports anything to it, they effectively withdraw their NFTs or tokens to their wallet.



HASH-RATE AND MINING

Under the hood, the game is a yield-farming (or liquidity-mining) optimizer.

Your assets are safe, with the protection of the smart contracts audited by top tier auditors. Users are encouraged to thoroughly assess any risk before staking funds.

Our smart contracts then use your assets to earn interests and mining rewards, through partnered protocols. We are very strict on safety and only work with reputable 3rd parties.

The earned interests or mining rewards won't be distributed to you directly; instead, we measure your contribution to the game's ecosystem with a term called "hash-rate".

The higher hash-rate you hold, the higher multiplier you get when mining natural resources in the game.

For example, a player who stakes \$100,000 worth of blockchain assets in the game can potentially gain 1000 times more resources than a player who stakes \$100 worth of blockchain assets in the game.

Of course, by researching new technologies, and unlocking more planets, players can also earn more resources.

So, you may ask: where did the original earned interests and mining rewards go? Currently, we deduct 80% of them to buy back burn LC tokens; and use the remaining 20% subsidize the development cost of the game. In the future, it may be changed according to the voting results of the DAO.

FLEETS AND SHIPS

General Information

Ships are built with natural resources. The smallest ships are really cheap, and by staking approximately \$100, a player can build a new one every few days.

If a player stakes more of their assets, they can build more small ships more easily, but eventually he will need to unlock new technologies in order to build the big ships.

Ships are managed as fleets, and up to 8 ships can be put into the same fleet.

Player can set a command to the fleets, which can be one of following types:

- ⚓ Move to a new coordinate and park there
- ⚓ Move to a new coordinate, and defend it.
- ⚓ Move to a new coordinate, attack the target, and return
- ⚓ Move to a new coordinate, and start mining.
- ⚓ Transport natural resources from one place to another.
- ⚓ Explore the planetary system.

Players are free to change the fleet's command any time as long as it's not defeated. While defeated, a fleet will automatically return to base planet and it takes hours or days for the ships to recover (players can spend *LC* to speed up the process). Players can change a fleet's formation when the fleet is parked.

Attributes, Grade, and Quality

Ships have the following attributes:

- ◇ **Speed.** How fast it moves (including normal travel and warping).
- ◇ **Attack.** How powerful its weapons are.
- ◇ **Defense.** How much damage the ship can endure.
- ◇ **Capacity.** How many resources the ship can hold.
- ◇ **Agility.** Determines the ship's ability to dodge enemy attacks.
- ◇ **Accuracy.** Determines the ship's ability to land attack.

And also, ships are measured with **grade** and **quality**.

Every newly built ship starts at grade 1, and is assigned with a random quality between 0% and 100%.

Players can **merge** two old ships of the same grade to get a new ship of a higher grade, and the new ship gets a quality of the higher value of the two old ones.



MINING RIGS AND DEFENDING UNITS

Without staking more blockchain assets, a good way for players to gain more natural resources is to upgrade their mining rigs.

Players first upgrade their rigs in their base planet, then in the colonized planets and asteroids.

Players can use fleets to defend their planets from attacks. If a fleet is defeated in battle, it becomes unusable for hours or even days. Players can supplement their defenses by building defending units, which recover faster from defeats, and can be a more efficient means of defending their colonies.

HEROES

Players can spend *LC* to summon heroes, which can serve as captains of the ships.

Heroes have the following attributes:

◇ **Zodiac signs**

Certain zodiac signs are more or less effective against others.

◇ **Survival rate**

How likely the hero is to survive when their ship is being attacked.

◇ **General effect**

How much the hero enhances the ship's general attributes.

◇ **Partial effect**

How much the hero enhances the ship's unique attributes.

◇ **Special skill**

Only SSR and above heroes have special skills. For example, certain heros can ensure ships dodge at least 3 attacks.

And here are a sample of our heroes of different rarities:



RANKING, EVENTS, AND TOURNAMENTS

Players are regularly ranked based on their resource generating speed and PvP battling results, and top players receive rewards from the system.

We, the development team of the game, will periodically host events or tournaments to boost user activities and retention of the game.

An example event can be:

Beat the aliens. In the following 48 hours, we temporarily create a virtual planetary system, where aliens protect their base with UFOs. All players are free to attack them, and gain rare resources, items, or even heroes.

An example tournament can be:

World war. In the following 14 days, players can join a random nation, and attack players from other nations. At the end of the tournament, the members of the winning nation will share certain rewards.

TRADING, INTELLIGENCE, AND GOVERNANCE

Players are free to withdraw their in-game assets to their wallets by transporting their resources or ships to the Trading Hub, which is a virtual point in the center of the universe.

To transport, players always need to make sure their ships in the fleet have enough capacity.

Ships are Non-fungible tokens (NFTs) and resources are fungible token.

Heroes are also NFTs, but they are special. In this game, heroes act as data streams that can move in the universe instantly without the restriction of any physical rules.

All data of the game is on-chain, and all user's activities are transparent to others. Thus, we designed a function called "radar", with which players can read and analyze other players' status.

Initially when we launch the game, all smart contracts are managed by "timelock" which guarantees that if any part of the game would be disrupted through an update, players will be notified at least 24 hours in advance with appropriate time to respond.

In the future, we will gradually transfer our ownership of the game to the community, and set up decentralized governance.

TOKEN ECONOMICS

LC (Light Coin) is the governance and utility token of the platform with a total supply of 100 million. Out of the 100 million:

- ◇ 50% reserved for mining and play-to-earn.
- ◇ 20% reserved for private sale investors
 - 20% after TGE, then 20% every two months
- ◇ 10% reserved for the team
 - 6 months cliff, rest linear over 30 months
- ◇ 10% reserved for strategic partnership
 - e.g. CEX listing
- ◇ 8% reserved for IDO
 - 40% after TGE, then 30% every 1 month
- ◇ 2% reserved for marketing
 - usage of the budget will be made public

And *LC* has the following usages:

- ◇ Rewards to players.
- ◇ Fees for speeding up damaged / injured units' recovery.
- ◇ Fees for summoning heroes.
- ◇ Medium of exchange for NFTs.
- ◇ Voting tickets once the decentralized governance is in place.

WHO WE ARE

Our team members are all over the world, who are veterans of the industry, and had worked for top tier internet and game companies.

Don't trust us. Trust our code.