

VOIDLIGHT / PHASE 1

WHITEPAPER v1.3

LAST CHANGED ON APRIL 30th 2022

The year is 2097, regions of the solar system are controlled by private multi corps under the governance of the United Nations of Earth. One of those corporations is Voidlight Industries, with three large stations positioned on the rim of our solar system they play a big role in ensuring timely delivery of valuable materials gathered in deep space.

You are its pilot, aboard a spacecraft, your task is to explore, navigate the dark regions of space, mine and gather valuable resources, and return to the station in one piece to claim your prize.

Voidlight is a multi-phase game and content will be rolled out in three primary phases.

PHASE 1 - THE PRE-FLIGHT PHASE

Before embarking on piloted missions, you will spend some time making Voidlight Station your new home, send out drones to establish routes in the nearby solar system, map asteroid fields and prepare for the next step.

Phase 1 consists of:

- **Mining, material refining, repair and recharge systems**
- **Research & crafting**
- **Staking (asset, token and resource)**
- **Specialization and expertise level systems**

MINING – DRONES & TOOLS

Send out drones to scout the asteroid fields and gather valuable materials.

Currently there are three types of drones - Excavator, Recon and Modular drone. Excavator and Recon drone come with three types of rarity while Modular Drone does not have rarity tiers but the tools attached to it do.

Excavator drones used for mining and gathering material from asteroids, and recon drones designed to support excavator drones with their scanners and sensors.

Excavator drones mine various materials that are automatically exchanged to VLT upon returning to the space station, while Modular drones with their tools are focused in mining unrefined versions of specific materials (Carbon, Metals, Silicon) and have to be refined before further use.

Standard Excavator Drone (common) / Base mining yield 4*

The Standard Excavator is the most common drone in service with Voidlight Industries. They were developed as an all-in-one vehicle to simplify asteroid mining operations. When deployed from a base station, they seek out nearby asteroids and use their onboard laser to cut out chunks of ore and carry them back for processing. The drone operator is rewarded depending on the quantity of resources collected.

Improved Excavator Drone (rare) / Base mining yield 16*

A significant upgrade over Voidlight Industries standard excavator, this variant is larger and features heavy armour plating to allow it to operate in more dangerous but mineral-rich areas where lesser drones would not dare fly. The size increase has also allowed for a larger cargo bay to store ore and more batteries to be installed, enhancing the power of the mining laser.

Advanced Excavator Drone (epic) / Base mining yield 64*

An extremely rare and powerful excavator variant. Drills into the core of an asteroid before using a shockwave generator to create high-intensity vibrations from the inside. This produces huge cracks in the asteroid, eventually causing it to split apart at which point the drone can easily scoop up the most valuable ores. While far more effective than Voidlight Industries' other excavators, manufacturing the shockwave generator requires such precise and lengthy engineering that they can only be produced on Earth in small quantities.

**Base VLT gained from mining is reduced by the % amount of registered Asteroid Ownership Certificates. 0.1% per registered certificate.*

Standard Recon Drone (common) - 80% Yield boost*

The standard recon drone is designed to support excavator drones. It contains an asteroid composition scanner that detects valuable minerals at greater ranges and accuracy than an excavator can do by itself. Recon drones have no mining power by themselves, but greatly improve the power of any drones which do on the same mission.

Improved Recon Drone (rare) - 220% Yield boost*

A significant improvement over the standard recon drone. Scanner depth and range has been increased with a larger power supply, allowing it to direct mining drones more effectively towards the best ores.

Advanced Recon Drone (epic) - 650% Yield boost*

By far the most effective recon drone in service with Voidlight Industries. Uses an onboard Artificial General Intelligence (AGI) for realtime command and control of the drone squadron. Powerful sensors reveal the entire composition of asteroids in a large radius and the location of the tiniest objects flying through space. The AGI takes direct control of nearby drones and operates them in the most efficient manner to maximise profits. AGI's of this type are purchased from private research institutes at massive costs to control large facilities with thousands of staff members, so few will ever end up in a recon drone.

Mining operations are done in the mission control window, and every player starts with 3 drone slots unlocked out of 8 total, more slots can be unlocked with research or by redeeming drone slot expansion NFT.

Each drone that is deployed on a mission goes on cooldown and cooldown timer can be seen in deployed drones tab, however it is important to note that slots themselves do not have a cooldown, so if for example you have 8 drones, but only three slots, you can send all of your drones on missions by sending them in batches 3, 3, 2 consecutively.

That being said, the efficiency bonus multiplier goes up exponentially the more slots you have filled.

SLOT 1	SLOT 2	SLOT 3	SLOT 4	SLOT 5	SLOT 6	SLOT 7	SLOT 8
0%	20%	44%	73%	107%	149%	199%	258%

Above described system incentivizes players to work on upgrading a single account, and eliminates any need for multi accounts.

MODULAR DRONE & TOOLS

As previously stated, Modular Drone itself does not have rarity tiers but the tools that can be attached to it do and as with Excavator drone their mining power grows with higher tiers as shown in the table below.

MINING TOOL	MINING POWER	MINES
Standard Silicon Mining Tool	4	Unrefined Silicon
Improved Silicon Mining Tool	16	Unrefined Silicon
Advanced Silicon Mining Tool	64	Unrefined Silicon
Standard Metals Mining Tool	4	Unrefined Metals
Improved Metals Mining Tool	16	Unrefined Metals
Advanced Metals Mining Tool	64	Unrefined Metals
Standard Carbon Mining Tool	4	Unrefined Carbon
Improved Carbon Mining Tool	16	Unrefined Carbon
Advanced Carbon Mining Tool	64	Unrefined Carbon

Modular drones and their equipped tool will share a cooldown after mining.

It is possible to mix the new modular drones with the older drones in a single mining action. All drones will count towards the slot multiplier bonus. The recon drone bonus also works for new resources.

Existing research will also apply to the new tools. Drone propulsion applies to reduce cooldown and drone cargo gives extra unrefined resources.

MISSION TYPE/DURATION

When sending out drones to a mining mission, you can choose between three modes that differ in duration and multiplier.

Performance mode is recommended for biggest resource yield if you are at your computer, while more balanced or low power mode are recommended when you plan to leave your computer or if you want to save up on CPU costs on the WAX network.:

- **Performance** - 2 Hour base duration
- **Balanced** - 4 Hour base duration with 1.75x yield multiplier
- **Low power** - 8 Hour base duration with 3x yield multiplier

RESEARCH & CRAFTING

R&D Lab module is used to improve your account by researching upgrades or by redeeming NFTs that provide upgrades.

Also, a major part of R&D Lab is crafting, in phase 1 there will be two blueprints types available, one for excavator and one for recon drone, each with standard, improved and advanced versions.

Using the blueprint to craft the drone comes with a cost, during the early stages of Voidlight Station establishment, this cost was covered and paid for in VLT, but with the recent advancements and new refining facilities being opened for resource refining these are the new crafting costs:

DRONE / TOOL	<u>REFINED</u> RESOURCE USED	AMOUNT REQUIRED
Standard Excavator Drone	Silicon	4 000
Improved Excavator Drone	Silicon	14 000
Advanced Excavator Drone	Silicon	250 000
Standard Recon Drone	Silicon	5 000
Improved Recon Drone	Silicon	16 000
Advanced Recon Drone	Silicon	200 000
Standard Silicon Mining Tool	Carbon	6 000
Improved Silicon Mining Tool	Carbon	24 000
Advanced Silicon Mining Tool	Carbon	250 000
Standard Metals Mining Tool	Silicon	6 000
Improved Metals Mining Tool	Silicon	24 000
Advanced Metals Mining Tool	Silicon	250 000
Standard Carbon Mining Tool	Metals	6 000

Improved Carbon Mining Tool	Metals	24 000
Advanced Carbon Mining Tool	Metals	250 000
Modular Drone	Silicon	2 000

Blueprints and resources are burned on crafting.

REPAIR AND RECHARGE SYSTEM

All previously existing drones and the new tools will now have a durability stat attached to them. This is mutable data attached to the asset.

Additionally, all player accounts will now have an energy stat associated with them.

All drones and tools have a cost associated with using them.

50% of this cost will be removed from the durability of the drone/tool.

The other 50% will be removed from the player energy supply.

DRONE / TOOL	<u>COST</u> [durability + energy]
Standard Excavator Drone	2
Improved Excavator Drone	7
Advanced Excavator Drone	16
Standard Recon Drone	3
Improved Recon Drone	8
Advanced Recon Drone	20
Standard Mining Tool	2
Improved Mining Tool	7
Advanced Mining Tool	16

Launching more drones at once increases the durability and energy cost to ensure that the mechanic stays relevant at higher levels of slot multiplier. However, more drone slots will always be the best choice for efficiency.

The table below shows the durability and energy cost multiplier by slot number

SLOT 1	SLOT 2	SLOT 3	SLOT 4	SLOT 5	SLOT 6	SLOT 7	SLOT 8
1x	1.1x	1.21x	1.33x	1.46x	1.61x	1.77x	1.95x

To provide you with an example:

If the player would use the following to mine:

Improved Excavator (Cost: $7 * 1.21 = 8.47$)

Improved Recon (Cost: $8 * 1.21 = 9.68$)

Standard Tool (Cost: $2 * 1.21 = 2.42$)

The total cost would be $(8.47 + 9.68 + 2.42) = 20.57$

The player would lose $(20.57 / 2) = 10.285$ energy

The improved excavator durability would be reduced by $(8.47 / 2) = 4.235$

The improved recon durability would be reduced by $(9.68 / 2) = 4.84$

The standard tool durability would be reduced by $(2.42 / 2) = 1.21$

Both durability and energy cost is multiplied according to the mission type (Performance, Balanced, Low Power) selected for mining.

Repairing durability requires a certain amount of refined resource.

Each refined resource is equivalent to 1 point of durability.

Drone/Tool to repair	Refined resource used for repair
Excavator Drone (all rarities)	Metals
Recon Drone (all rarities)	Metals
Silicon Mining Tool (all rarities)	Metals
Carbon Mining Tool (all rarities)	Silicon
Metal Mining Tool (all rarities)	Carbon

Recharging energy requires refined carbon, 1 point of energy is restored per 1 refined carbon used.

RESEARCH OPTIONS AND COST

Drone deck expansion:

Increases amount of drone slots by 1 for each tier with a fixed cost of **30 000 VLT**.

Drone Deck Expansion NFT and research can be combined as redeeming the NFT counts as one tier level of research. Total amount of unlocked slots is 8.

Drone propulsion:

Decreases drone cooldown by certain amount of time per tier, each tier level reduction replaces the previous reduced time with new one, reductions are not additive.

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Total time reduction	1.6%	4%	10%	19%	33%
VLT research cost	50	250	1600	6000	20 000

Drone cargo:

Increases drone yield by certain % per tier, each tier level bonus replaces the previous bonus yield with new one, bonuses are not additive.

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Total yield increase	2%	5%	10%	18%	30%
VLT research cost	75	300	2000	8000	16 000

MATERIAL REFINING

Refining is the process of converting unrefined resources into refined resources, at which point they become full tokens of their own and are tradeable on Alcor Exchange.

Specialised unrefined resources convert to refined tokens at a 100% efficiency.

Unspecialised unrefined resources convert to refined tokens at a 66.7% efficiency

There is a refining fee of 30% of the output materials paid in VLT.

For example, a player who is specialised in metal wants to refine 1000 unrefined metal. As they are specialised, the efficiency is 100% so they will receive 1000 refined metal.

They pay a fee of $1000 * 0.3 = 300$ VLT and receive 1000 refined metal.

If the same player wanted to refine 1000 unrefined silicon, which they are not specialised in they would gain $1000 * 0.667 = 667$ refined silicon and lose the remainder. The fee would be $667 * 0.3 = 200.1$ VLT.

SPECIALISATION AND EXPERTISE

Players will be asked to specialise into one of the three new resources.

This provides various bonuses, including higher refining efficiency of the specialised resource and reduced cost of increasing the expertise level for the resource.

VLT mining is not affected by specialisation.

All players will need all three resources at some point, including for repairing drones and tools, recharging energy and crafting.

It is still possible to mine and refine resources other than the specialised one, but generally it will be far more efficient to focus on mining only the specialised resource, and obtaining the others by trading with other players.

The expertise system allows players to gain experience points by mining different resources.

Each new resource has an expertise level associated with it. The higher the player's expertise level, the higher the bonus they receive when mining the resource.

The bonus ranges from 0.01 at level 1 and increases exponentially to 6.625 at level 50.

Each expertise has experience points which are required to level up. These are earned on a 1:1 ratio to the unrefined resources gained through mining.

For example, if a player mines 15 unrefined metal, they will receive 15 metal experience.

Gaining a level requires having the minimum experience points for that level, and paying a fee in a certain refined resource.

Using the same example, 15 metals experience is enough to gain level 1 of metals expertise, so the player now has the option to spend 8 refined silicon to unlock it and receive the bonus to metals mining.

Gaining levels in the expertise matching your specialisation is 4x cheaper.

Experience points are never lost and will accumulate regardless of whether the player has yet paid to level up, in the table below you can see refined materials needed to level up in expertise.

Expertise Levels	Required (refined) material to level up
Metals levels	Silicon
Silicon levels	Carbon
Carbon levels	Metal

STAKING

Players can stake their assets and earn entirely passive VLT; at the current phase, there are two sections in the staking module.

First is used for claiming VLT gained from staked Voidlight assets and managing staked assets, and second is used to claim VLT generated by owning and registering an Asteroid Ownership Certificate.

Please note, staking is not meant to be a major way of earning VLT, as you can have your drones staked and deployed to missions at the same time, staking is here to make sure you are still generating VLT even if you are away from your computer or unable to run missions for some reason.

Asteroid Ownership Certificate

Provides the owner of the certificate with a 0.1% share of all drone mining profits in the territory of Voidlight Industries. Owners should register their certificate at the Voidlight Logistics Office, after which they will receive their share automatically (ready to claim) for as long as they possess the certificate.

Keep in mind that the 0.1% share applies only to profits made by drones mining VLT.

Staking Pools

There are three staking pools: **Silicon, Metals, Carbon.**

Upon staking you enter amount of VLT you want to stake, and choose a 1-12month lock period.

Staking VLT into those pools enables you to earn unrefined version of those respective materials as well as the addition of Station Credits (available only if lock period is 3 months or longer).

These materials are an important part of the project moving forward and refined versions will be used for crafting, maintenance, recharge and drone repair to name a few.

Unrefined version and Station Credits are not tradeable on Alcor Exchange, however refined versions are.

TOKENOMICS

Voidlight Tokens (VLT) are earned and spent by players in the game. VLT has a maximum supply of 1,000,000,000,000 (1 trillion).

It is the liquid currency of the Voidlight universe and the backbone of the in-game economy. Nearly all activities will involve the exchange of VLT, from Phase 1 onwards. As such, it is a key focus of the developers to ensure that the circulation of VLT is kept at a healthy level such that players will always be incentivised to play the game and earn it.

As players earn VLT, many will want to spend it to boost their capabilities in the game. In Phase 1, it is earned through mining and staking, and it is spent through research and crafting which act as sinks to control inflation. Obtaining new drones as well as unlocking research (particularly drone slots) is very important for increasing mining power and incentivises players to hold their VLT and drones to maximise their squad slots.

After the launch of Phase 1, we will develop an in-game shop system where a limited quantity of NFTs may be purchased for VLT and/or Station Credits. This will allow drops to be made available for both WAX and VLT.

THANK YOU!

For showing interest in our project and taking your time to read more about it!

We would love to hear your comments and questions, speak up!

Our primary information and community hub will be on discord, and we strongly recommend joining to keep up with the development of the project, as all announcements will be posted there first.

It is also a great way to communicate with us directly and engage in community growth.

Voidlight team

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