Astralwater Interactive

**Project: Abyss** 

Game Design Document

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# 1. Introduction

# **1.1 TEAM**

"Project: Abyss" is being developed by a team of 14 people of many different skill sets.

# **Contact Roles**

**Austin Morris:** Build Engineer

**Alexander McTernan:** Communications Contact

Maxime Paradis: Programmer Contact

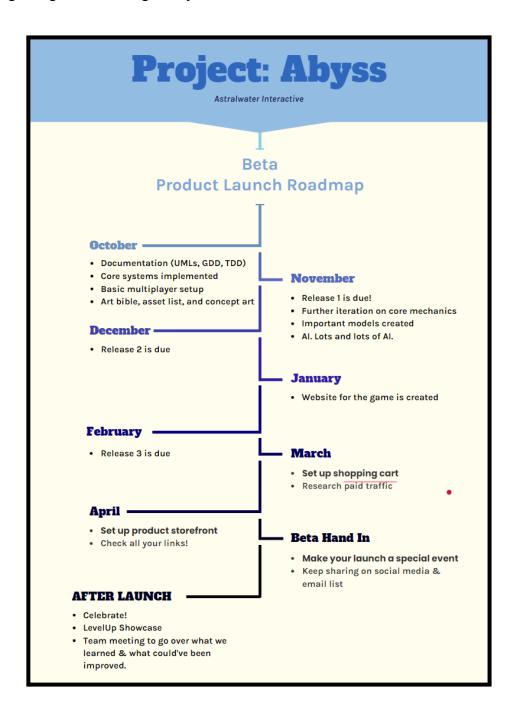
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## 1.2 ROADMAP

Project: Abyss development will be iterative and focus on building core, approachable systems for programmers and artists to easily change and interact with. Once core systems are implemented, and concept art & designs are created, we will focus on networking and polishing what we have.

A key element of our development will be detailed documentation, especially regarding all of our in-game systems.



### 1.3 OVERVIEW

The purpose of this document is to serve as a reference guide for design, implementation, and future features.

In this document, players will be referred to by two roles. The Diver<sub>3</sub>, and the Boat Operator<sub>4</sub>. This is to help discuss how they interact with each other. These roles can be changed in the game at most times, and are not pre-assigned in menus/lobbies.

## 1.4 REFERENCE MATERIAL

Drawing inspiration from various successful games can provide valuable insights and help shape the unique identity of "Project: Abyss." The following titles serve as reference material for different aspects of the game's design and gameplay mechanics:

#### • Subnautica:

*Influence*: Subnautica is a critically acclaimed underwater exploration and survival game. It serves as a reference for creating a compelling underwater environment, showcasing diverse aquatic life, and emphasising the sense of discovery. The game's crafting and base-building mechanics may offer insights into potential gameplay elements.

### • Phasmophobia:

*Influence:* Phasmophobia is a cooperative horror game that relies on communication and teamwork. Taking inspiration from Phasmophobia, "Project: Abyss" could explore ways to enhance the cooperative experience between the Boat Operator and Diver, emphasising the importance of effective communication in a challenging environment.

### • Five Nights at Freddy's:

*Influence:* While the horror elements in "Project: Abyss" may not be as intense as Five Nights at Freddy's, studying its use of suspense could inform the implementation of horror elements within cave exploration. Jump scares, ambient sounds, and unexpected encounters might be adapted for certain moments in the game.

### • We Were Here Together:

*Influence:* We Were Here Together is a cooperative puzzle-adventure game. The emphasis on collaboration between players, where each has unique information or tools, could serve as a model for the symbiotic relation between the Boat Operator and Diver in "Project: Abyss." This reference could help refine the communication dynamic in our game.

## 2. STORY

## 2.1 PREMISE

"Project: Abyss" offers a captivating cooperative underwater adventure, casting players as two intrepid researchers contracted by a major tech conglomerate to explore a newly unveiled layer of our planet deep beneath the ocean's floor, Hollow Earth. However, within the corporate hierarchy, you find yourselves deemed expendable assets, sent to simply collect data for the major corporation in this extremely dangerous environment.

This groundbreaking discovery unveils a realm previously concealed from human exploration, brimming with unprecedented flora, fauna, and never-before-seen aquatic species. Your mission is to capture the enigmatic beauty of this subterranean world through photography, document your findings meticulously, and gather samples that unveil the secrets of this unknown new layer without becoming food for the abyss. As you delve deeper into the heart of Hollow Earth, you'll uncover traces of an ancient, intelligent civilization that has left behind mysterious clues about its existence.

Yet, amidst the wonders of this underwater world, the shadow of corporate indifference looms over you. You must navigate difficult choices involving the preservation of the established ecosystem's natural order or disturbing what lurks deep below for corporate greed.

## 2.2 INSPIRATIONS

The Hollow Earth theory is our major inspiration for the story aspect of the game. The theory is a speculative concept proposing that the earth is not a solid sphere but contains a substantial, habitable space within it. In our game, we interpreted that large inhabitable space as a second ocean, with vast amounts of unknown aquatic flora and fauna.

While Hollow Earth theory remains largely speculative and fringe, we plan to use this idea to keep our game close to the players' home, making the intrigue aspect much higher since they are living on the same planet which the game takes place.

## 3. PLAYER CHARACTER

### 3.1 **MOVEMENT**

The player will have 2 different forms of movement in this game.

### **Land Movement**

The player will be able to walk on land surfaces using basic movement controls.

### <u>Underwater Movement</u>

The player will have the ability to swim when inside of water sources. Movement will be based on directional input on where you're currently looking forward. If you press space, you will rise, and if you press control, you will sink. This underwater movement will primarily be used in caves, however, the diver is still technically swimming when being lowered in the Dive Cage<sub>6</sub>.

## 3.2 RISK VS REWARD

### Risk

### Stress<sub>5</sub> and Health

- Stress increases from being underwater for prolonged periods, being in dark areas, or being attacked by hostile fish.
- The diver<sub>3</sub> faces risks from hostile fish, and the cage has health affected by attacks. When in caves, the player's health will directly be affected.
- Stress management becomes crucial for maintaining safe and efficient expeditions.

### Cage Destruction

- If the Dive Cage<sub>6</sub> is destroyed, the diver loses progress and equipment that was made during the expedition. It must be repurchased (other than DiveBot<sub>2</sub> being used as equipment).
- Hostile fish attacks contribute to cage health depletion.

### **Reward:**

### Money for Upgrades

- Completing missions and capturing photographs earns money. The first picture
  of a newly discovered fish will give bonus money.
- Money is used for purchasing equipment and upgrades for both the DiveBot<sub>2</sub> and Dive Cage<sub>6</sub>.

### **Story Progression**

- Completing missions advances the storyline.
- Filling out your collection journal will indicate progression as main missions will fill out a large portion of your journal.

## 3.3 STRESS

The player will have a stress<sub>5</sub> state attached to it, which is displayed via your heartbeat. This will have lasting gameplay effects when going on expeditions. Please see section 5.10 - Stress and Health, to see more in-depth details on this mechanic.

## 3.4 HEALTH STATES

The player will have a health state indicating how damaged they currently are. The player will be able to die if they aren't careful, losing progress on current expeditions. Please see section <u>5.10</u> - <u>Stress and Health</u> for more information.

## 3.5 MULTIPLAYER INTERACTIONS

The cooperative nature of the game necessitates the engagement of two players who seamlessly interchange between the roles of Boat Operator<sub>4</sub> and Diver<sub>3</sub>. Effective communication serves as a cornerstone in the gameplay dynamics. While in-game voice chat is available as an option, the current iteration of the game prioritises alternative communication methods.

This emphasis on communication stems from the inherent asymmetry in information between players. The Boat Operator<sub>4</sub> assumes a pivotal role in guiding the Diver<sub>3</sub> through intricate cave systems, providing timely warnings about potential hazards utilizing the DiveBot<sub>2</sub>. Simultaneously, the Diver contributes by relaying critical information back to the Boat Operator, detailing observations about the underwater wildlife for comprehensive documentation in the journal.

This symbiotic communication dynamic enriches the cooperative experience, fostering a sense of interdependence and strategic collaboration between players.

# 4. NPC's

# 4.1 NATIVE CREATURES



#### Flora

The underwater landscape is adorned with a plethora of flora, each with its distinct characteristics and interactive elements. From bioluminescent algae that illuminate the darkest depths to towering kelp forests that sway with the ebb and flow of the currents, our flora is designed to evoke a sense of wonder and discovery. Some

plants may even exhibit unique behaviours, such as carnivorous kelp that actively preys on smaller fish, adding an extra layer of complexity to the ecosystem.

### Fauna

The heart of our underwater world beats with the presence of diverse fauna, offering players a captivating ecosystem of aquatic life. From the graceful movements of ethereal jellyfish to the elusive schools of shimmering fish darting through the Crystal Ravines, players will encounter a rich variety of creatures. Each species of fauna is meticulously crafted to have distinctive reactions to external stimuli, including the presence of humans, variations in light, sound disturbances, and visual cues. This ensures that player interactions with the underwater inhabitants are dynamic and responsive, enhancing the overall realism of the virtual ecosystem.

#### Hostile Fish

Engaging encounters with aggressive species that pose a threat to the player. These fish exhibit predatory behaviour and may attack when provoked, creating tension and excitement during expeditions. Understanding their patterns and behaviours becomes crucial for survival.

### **Environmental Fish**

These creatures are integral to the underwater environment but do not pose a direct threat to the player. They contribute to the immersive ambiance and visual richness of the world, fostering a sense of coexistence between the player and the ecosystem.

### Friendly Fish

Encounters with these amicable aquatic companions offer players moments of tranquillity amidst the challenges of the abyss. These fish may exhibit curiosity or even assist the player in various ways, creating positive interactions within the game world.

# 4.2 Major Tech Conglomerate (H.E.I.R.)

Sent down by Hollow Earth Is Real to risk our lives for their needs. They give us tasks to gather data (pictures) for them and reward us with petty change for upgrades. The story will involve them slowly exposing the sinister goals that they want the researchers to do for them.

Hollow Earth Is Real (H.E.I.R.) is a privately held multinational corporation headed by a shadowy group of investors who want to claim all resources found in the hollow earth for themselves. In order to do this they need the researchers from the Hollow Earth Research Division (H.E.R.D.) to go down into the Abyss to catalogue the flora, fauna, and minerals found there. The researchers are sent down with a ship equipped with a shark cage and a remotely operated vehicle, known as the DiveBot, to gather the data requested by the corporation the researchers must locate and photograph the particular

fauna in exchange for company scrip that can be used to upgrade the researcher's equipment. As the story progresses the researchers gradually discover the sinister nature of their employer and their ultimate goal.

## 5. MECHANICS

### 5.1 PHOTOGRAPHY

Each player will have the ability to take pictures with the camera that they have on them at all times, and it will also be their main way of completing missions. Every time the player takes a picture, it is stored in the camera until they reach the safety of the boat. After that, all the pictures are moved to the gallery. If a picture contains a specific fish, it will be uploaded to the Collection entry, and that fills out more information about the associated fish, as you have learned more about its behaviour (More on this later).

### Taking pictures

During each dive, only a certain number of pictures can be taken before the data on the camera is full and needs to be returned to the boat. UI effects will show whether the creature you are pointing the camera at is a newly discovered fish or an already known species, though this will only come into effect when the player is within a certain range and with an unobstructed view of the creature. A UI camera frame will also need to be present whenever the camera is equipped as well.

## **5.2 BOAT**

The boat will be the main hub that the players will spend most of their time in between dives and cave explorations. It is meant to be a safe place. This object will have multiple different features aboard it, including a steering wheel, a storage container, a PC terminal, and a Dive Cage<sub>6</sub>.

#### Boat steering wheel

When the player interacts with this object, they will take possession of the boat and have the ability to drive the boat (Turning and speed control). The player can possess and unpossess as they wish.

### The Storage Container

This is what will hold all of the items purchased at the shop, except for passive upgrades such as depth increases. When an object is purchased, the boat will retrieve it and then it will automatically appear in this container, then the player can go and retrieve the items as they wish, or attach them to the dive cage or the DiveBot<sub>2</sub> if it serves the purpose.

The PC Terminal and the Dive Cage<sub>6</sub> are described later.

### Picker Upper

When players are purchasing equipment, they will need to send an order to H.E.I.R. to receive their items. These items will be dropped into the water via a drill drop pod. The drop pod will be marked on the map, and the players will be tasked to travel to the location and collect their equipment.

They will collect it using the Picker Upper, which one player will control on the boat, and need to grab the drop box out of the water to put it on the boat. Once on the boat, the equipment is added to your storage container.

## 5.3 DIVE CAGE

The Dive Cage<sub>6</sub> is the object that lowers the diver into the depths. That protects the diver<sub>3</sub> from outside threats as they are trying to reach their desired location. Equipment can be attached to this to make the trip easier to complete and there are 2 cameras attached to it by default. The cage also has Health which will be explained below. This object is attached to the boat and it is controlled by the PC Terminal.

### Door

The Dive Cage<sub>6</sub> will have a door that will allow the diver<sub>3</sub> to enter and exit when the cage is at boat level and when it has entered a cave instance and locked at all other times.

### **Lock Button**

The Dive  $Cage_{\underline{6}}$  door will be able to be locked by the diver, which will be necessary to commence the expedition.

### **Health State**

This is affected when hostile fish damage it. If the cage is destroyed, the diver loses all progress and the attached equipment is also lost and will need to be re-purchased. Equipment can be used to mitigate this. The health is restored at the end of the mission<sub>1</sub>.

#### Cameras

There are 2 of them in the cage and they are fixed (cannot rotate), but for more info, see the PC Terminal.

### **Equipment slots**

These slots are on 4 sides (Top, Bottom, Left, Right) of the cage and they are able to be filled with equipment that can be purchased at the Shop in the PC Terminal (Explained later). Changing this equipment changes the model placed on the cage,

though the location does not change. Equipment includes decoys, lights, sound emitters, etc.

## 5.4 PC TERMINAL

This device will be available on the boat for players to use to assist each other in different ways.

#### Missions tab

The missions tab will show your current, and completed missions sent from H.E.I.R. There are two distinctions between missions in our game, "Main Missions" and "Side Missions".

### Main Missions

These missions<sub>1</sub> are the main, linear storyline throughout our game. You can follow this questline without doing any side missions and still be able to complete the game. The structure will roughly consist of a few missions to take pictures of fish within a specific Biome<sub>2</sub>, and eventually conclude with a major mission to explore a cave specific to the biome.

### • Side Missions

These missions are optional and slowly unlock as you complete certain main story questlines. They will often have equipment rewards and will task you with taking photos of fish that haven't been introduced to you in the main missions.

### Map Tab

This will show the areas that the players have explored and it will show markers to direct the players towards mission locations. Maybe show active missions off to the side (Showing what the marker means).

#### Journal Tab

### Gallery:

When pictures are returned to the boat, they will appear here. When the diver3 with the pictures boards the boat, this will automatically happen. If a picture is taken that discovers a new fish, it will say which type it is and give the player the option to move it to an entry in the Collection tab.

### **Collection:**

Each fish will have a journal entry and when it is more effectively researched, weaknesses and behaviors are revealed to the players, only revealed when the diver returns with the picture. The boat operator<sub>4</sub> will be able to take notes before this point. This means they will be able to start the entry before the picture is returned. If the diver<sub>3</sub> dies or the camera is lost, picture-related research is lost but the personal notes are still available in the journal.

#### Cameras Tab:

Cameras will be positioned around the Dive Cage<sub>6</sub> (attached). Cameras will also be on the diver<sub>3</sub> and also on the DiveBot<sub>2</sub>. The diver<sub>3</sub> will also be able to place deployable cameras.

- When the boat operator is observing the DiveBot<sub>2</sub> camera, they will have the option to possess the DiveBot<sub>7</sub> from here.
- Placed Cameras (Diver placed) will have its own tab. Separate from the base available cameras at the beginning of the mission<sub>1</sub>. (Deployed cameras)
- When observing a camera attached to the Dive Cage, the boat operator can lower and raise the Dive Cage<sub>6</sub>. These cameras are fixed.

### Shop Tab:

This is where the player will make all of their purchases. It will show the money they have collected as well as the upgrades and equipment available for them to purchase. When a player clicks on a single item, more info will be displayed on the side of the list. (Shrink the list to the side a bit to open up some display area)

## 5.5 EQUIPMENT

There are 2 types of purchasable equipment. Some can be used to customise your Dive Cage<sub>6</sub> and DiveBot<sub>2</sub>. Others are used as consumables for the diver to bring in.

All Equipment is stored in your boat inventory storage and if it is customizable to the Cage or Bot, it can be seen in the Customization tab as well in the PC Terminal. If the Dive  $Cage_6$  is destroyed, all attached equipment is lost.

### Possible attachable equipment

- Decoy Launcher (Light, Sound/Heartbeat, etc)
- Spotlight
- Extra Video Camera
- Thermal scope

### Possible consumable/diver carried equipment

- Deployable camera
- Extra lights
- Sound emitters

## 5.6 DIVEBOT

The DiveBot<sub>2</sub> is a mechanical drone that will accompany the diver<sub>3</sub> into caves and assist in many different ways. It can be either controlled by the boat operator<sub>4</sub> or follow the diver<sub>3</sub> around. The DiveBot will require a 3D model and some animations (Movement and a petting animation (Optional)).

#### Base mechanics

**Movement:** The DiveBot<sub>2</sub> will have a propeller on the back, so it will only be able to move forward and backward, not side to side. The driver will have to turn the DiveBot itself to drive in a new direction.

**Photography:** The DiveBot<sub>2</sub> will be able to take a limited amount of pictures to assist the diver in completing missions<sub>1</sub>.

#### Other Mechanics

**Equipment:** Similar to the Dive Cage, the DiveBot also boasts the versatility of equipping various items in its four designated slots. These items encompass a range of possibilities, including but not limited to additional lights and sound emitters. For further details, refer to the Equipment section for a comprehensive overview.

#### **Behaviors**

When the boat operator wants to, the player will possess it and have full control of the DiveBot and its actions, including the use of anything of the above.

When the DiveBot<sub>2</sub> is not possessed, it will follow the diver<sub>3</sub> around at a certain distance and use its equipment to assist the diver as best as it sees fit. (Default being turning on an extra light to assist with sight)

The DiveBot<sub>2</sub> can be attached as equipment to your Dive Cage<sub>6</sub>. This can be used as a semi-permanent equipment slot that is fairly strong compared to other equipment. If the Boat Operator<sub>4</sub> chooses to use the DiveBot when going down on an expedition, it will be stationary in the equipment slot it is attached to, however, it will be able to use all of the DiveBot's current equipment and upgrades as well. (This includes the camera, flashlight, etc.)

#### Petting the DiveBot

In caves, the Diver will be able to pet the DiveBot<sub>2</sub>. By swimming up to it, and pressing the Interact key on the DiveBot, you can pet it! This plays an animation and temporarily disables input from both players.

# 5.7 AI

AI will play a pivotal role in our project, orchestrating the behavior of diverse marine life within our world. The inhabitants include Hostile Fish, Friendly/Passive Fish, Environmental Fish, and other various creatures that often tread the seafloor, each exhibiting specific and unique behaviors.

Both hostile and friendly creatures share similar developmental needs, necessitating animations, 3D models, and often times individual behavior trees. These intricate algorithms define their responses to stimuli, such as light, sound, the diver's stress levels, and the deployment of various equipment by the players.

**Hostile Creature Behaviour:** Each hostile creature will be able to bite the diver under certain conditions, which will be affected by multiple sources as mentioned above. Shining light directly on the creature, making too much noise, or having a high heart rate are some of the main ways that these behaviours will be affected. If the creature successfully attacks, they retreat to a fair distance, and let the player escape before they are attacked again.

**Friendly/Passive Creature Behaviour:** These fish refrain from attacking the players. Instead, upon being approached, they often flee from the player if spooked. Certain friendly creatures will have unique reactions with the player, either to be cute or to directly assist them on their expedition.

**Environmental Creatures:** Unresponsive to the player's presence, these creatures typically remain at a considerable distance from them. These creatures will typically be large schools of small fish that are used as decoration in the world. To optimise these large quantities of fish, we will most likely be using particle systems with textures on a 2D plane.

**Free swimming vs Seafloor confined creatures:** The distinction between free-swimming creatures and those confined to the seafloor lies in their movement capabilities. Both categories can exhibit the behaviours mentioned above, albeit with necessary adjustments to accommodate their specific movement styles.

## 5.8 CAVES

Caves are instanced content that players will gain access to once they:

- 1. Reach a certain point in the story
- 2. Have the proper depth upgrades to be able to explore them

  They will allow the player to free dive, including the boat operator<sub>4</sub> controlling the DiveBot<sub>2</sub>. Caves will be unique zones where artists can focus on unique and thematic-level designs, with horror elements. These areas will most likely include a fetch mission<sub>1</sub>, where you need to "collect" an item at the end of the cave while taking pictures, in order to finish a main story mission<sub>1</sub>. This encourages the player to reach a certain end point in the cave.

## 5.9 MISSIONS

The main source of progression in the game will be a mostly linear questline, consisting of main quests with major events, and the occasional side quest that the players can

choose to do for extra money. As you progress through the main questline, you will unlock the ability to purchase certain necessary upgrades, specifically the depth upgrades. Unlocking these depth upgrades will allow you to properly explore the unique biomes<sub>2</sub> that are found deeper in the world which you otherwise wouldn't be able to access. An example necessary upgrade will be a form of heat resistance when travelling deeper into the Volcanic Wastes. To access and accept missions, players will have to go through the PC Terminal. To unlock more missions, prerequisite missions will need to be completed and necessary upgrades have to be bought.

## 5.10 STRESS, AND HEALTH

#### Stress

Stress is a mechanic that is attached to the players themselves and it has to do with heart rate. This will change how fish react to your presence. This will be tracked via a heart monitor on your wrist. Meant to be a diegetic UI.

- Low stress: This means that you can get closer to the wildlife before it notices you and they will be less likely to be spooked by you, meaning there is a smaller chance that they swim away or attack.
- High Stress: This means that the wildlife can notice you from further away and are more likely to react majorly to your presence. This is because your heart rate is faster and louder, creating sound waves that are detectable from hostile creatures experienced at hunting.

### **Reducing Stress**

The greatest source of reducing this stress₅ metre is by visiting well-lit, safe areas. This makes exploring dark and unknown areas much more daunting and suspenseful.

### Health

The health system will not be a standard health bar, but getting attacked by hostile fish does take its toll on the diver<sub>3</sub>. Instead of a health bar, a health state will be implemented that will be indicated via a screen vignette around the. State 1 = no change and fully healthy, State 5 = Big indicator meaning the diver<sub>3</sub> is 1 hit from death.

## 6. LEVEL DESIGN

## 6.1 MAIN LEVEL

The main level is an open water area where players can navigate their ship and lower the dive cage to explore the depths of the Hollow Earth. The Player will be able to navigate over each biome but will not be able to reach the deeper biomes until their dive cage has been upgraded to be able to lower further. At the floor of each biome there are unique terrain features such as trenches, hills, and valleys, paired with unique fauna and flora present in each biome.

### **Biomes**

There are four distinct currently uncovered biomes present in Hollow Earth

### Shallows

The shallows should present an attractive and inviting atmosphere without conveying many negative undertones. Striking a balance between novelty and familiarity, the environment should feature recognizable yet distinct flora and fauna. Adequate illumination and a relatively vibrant color scheme to lure the players into a false sense of security is vital. Notably, there are some less friendly elements, including the Poseidon Fish Traps, a variety of kelp with a resemblance to a submerged Venus flytrap.

### • Crystal Ravines

Crystals adorn nearly every surface of the walls and floors, emitting a subtle glow. Their sizes vary, ranging from petite rocks to massive protrusions dwarfing a human in scale. The presence of vegetation is more limited in this environment, with some plants exhibiting a crystalline quality. Additionally, certain creatures dwelling here are adaptations of species found in other regions, incorporating integrated crystal elements.

### • Volcanic Wastes

Hydrothermal vents are abundant throughout, imparting a murky, greenish tint to the water to evoke a sense of warmth. Occasional magma bubbles add dynamic elements to the scene. Vegetation in this locale must possess robust qualities to endure the heat and volcanic dynamics, possibly exhibiting a "dry" appearance reminiscent of desert plants. Numerous fish species in this environment boast armored or thickened skin, adapting to the challenging conditions.

### • The Abyss

In the profound depths of this area, scant light allows only a few tenacious plants to thrive, creating an environment inhabited by a select group of predators. In the absence of traditional prey, each creature here has evolved to be carnivorous, relying on the challenging cycle of either defeating another predator for sustenance, perishing in the attempt, or succumbing to starvation. Every creature encountered by players bears the marks of survival, exhibiting battle-worn attributes such as formidable offensive features (e.g., imposing sharp teeth) and robust defensive traits (e.g., protective armor), often a combination of both. Given the minimal illumination, most inhabitants in this area likely rely little on sight, rendering eyes largely optional in their adaptations.

Each biome will have a cave based upon it that the player enters by interacting with a trigger box at a cave entrance in the biome. They must unlock access to the cave first by completing a specific main quest prerequisite.

### 6.2 CAVES

The caves are intricately designed, individually instanced levels that add depth and challenge to the players' underwater exploration. These subterranean realms are dedicated to the discovery and documentation of specific creatures. The players will be able to free dive in the caves, allowing complete control of where they go within the confines of the cave.

### Cave Entrance and Access

Players gain entry into these caves by interacting with designated trigger boxes strategically placed in the main level. However, unlocking access to a particular cave is contingent upon completing a specific main quest prerequisite. This introduces a layer of progression and purpose to the exploration, making each cave dive a meaningful step in the overarching storyline.

### Complexity and Navigation

Caves progressively increase in complexity, offering a dynamic gameplay experience. As players advance, the caves evolve by introducing more off-shoot branches from the main cave trunk. These branching pathways present challenges and decision points, requiring players to make strategic choices in their navigation. Multiple trunk areas connected within the cave system further enhance the complexity, ensuring that players must skillfully navigate through interconnected passages.

### Ambient Light and Bioluminescence

To intensify the challenge, ambient light within the caves is intentionally reduced, plunging players into darkness. Relying on the bioluminescent plants becomes crucial for navigation. These natural light sources guide players through the intricate twists and turns of the cave, creating an immersive and suspenseful experience. The need to adapt to the reduced visibility adds an extra layer of strategy and tension to the cave exploration.

### Mission-Oriented Design

Each cave is tailored to a specific mission – oftentimes being taking a photograph of a specific creature deep in the cave. This mission-oriented design ensures that players have a clear purpose within the cave, aligning with the overarching narrative and quest structure.

## 7. USER INTERFACE

### 7.1 MAIN MENU

The main menu for Project: Abyss will be interactive to the player, and introduce them to the horror elements. When the player presses the "Press any key to continue" button, the dive cage will begin to lower into the water while the camera follows, going through the many biomes of the game as you go deeper. Once you reach the button, a large fish will swim to the right of the camera, and a giant eyeball will follow the mouse cursor around. The menu buttons will then appear.

### 7.2 PC TERMINAL

The PC Terminal is an actor placed on the boat, the player will be able to interact with this actor and it will bring up an old windows style desktop with icons for the various actions within the PC Terminal. By selecting the various icons on the desktop the player will be able to open their journal application, the map application, the cameras application, the DiveBot application,

The journal application, which contains a compendium of the flora and fauna they have found and a gallery with the photos they've taken.

The map application, which will inform the player of points of interest in the main level where they are more likely to find fish and markers for caves that are accessible.

The camera application, which will cycle through the various cameras on the diver, shark cage, and the Divebot application. The DiveBot application is the upgrade application where players can purchase better equipment, and the customization application where players can personalize the appearance of their desktop, ship, and character.

See PC TERMINAL for in depth information on this topic.

# 7.3 **HUD**

There will be very minimal HUD in our game, the primary HUD element will be the camera viewfinder which is brought up when the player readies their camera to take a photo. The player will receive most of their information diegetically via a wrist-mounted monitor displaying their current stress level, depth, and heart rate. Wrist Diegetic:

Photography Camera UI:

Damage States:

Item Hotbar:

# 8. GLOSSARY

| Term             | Definition   |  |
|------------------|--|--|
| 1. Mission       | Objectives or tasks assigned to the players by the major tech conglomerate (H.E.I.R) to gather data, take photographs, and explore specific areas, contributing to the progression of the storyline.   |  |
| 2. Biome         | Distinctive zones within our world, characterised by unique flora, fauna, and environmental features. Biomes add diversity and a sense of progression for the player. Our biomes include Shallows, Crystal Ravines, Lava Wasteland, and The Abyss  |  |
| 3. Diver         | One of the two interchangeable player roles in our game. The current diver is responsible for being sent down in the Dive Cage, taking photos of fish, and communicating with the boat operator about what he sees. They are at risk of hostile fish attacking the cage.   |  |
| 4. Boat Operator | The other role in our game is a boat operator. They are responsible for guiding the diver from the boat. The operator will be able to lower & raise the Dive Cage using the PC Terminal and use unique Equipment that they socketed into the cage. The operator has a safer role than the Diver, however, it is equally as vital to the success of the mission as they must ensure the diver's protection. |  |
| 5. Stress        | Player stress is directly indicated by their heart rate, shown on a diegetic on their wrist. High stress directly affects how creatures interact with you, and often leads to more dangerous encounters.   |  |
| 6. Dive Cage     | A protective vessel attached to the boat that lowers the diver into the depths. It has a door, health state, and equipment slots for attachments to facilitate the diver's journey.  |  |
| 7. DiveBot       | A mechanical drone that accompanies the diver into caves, assisting in various ways. The DiveBot has movement and photography capabilities and can be controlled by the boat operator.   |  |