

RELIC



RELIC

PRE-PRODUCTION



TEAM	ROLE
Lewis Preen	Team Lead Mechanics Sound UI
Melwin Augustus	Team JR Animation Art
James Burton	Level Design
Terry Caborn	Mechanics Sound UI
Steven Pinto	Mechanics Level Design

Synopsis

Relic is a first-person, action-adventure puzzle game, where the player takes control of **Koba** a **Brakan scout** from the planet **Drazol**. Koba is part of an elite group of treasure hunters that serve the **Eurakev**, an advanced species, who are power hungry bureaucrats with great intelligence that thrive on supremacy and wealth.

TBD, travels to various planets and locations using the **Amtolok**, a dark void that traverses through the Universe, to seek out hidden treasures.

Game Genre

Gameplay will be heavily influenced by Metroidvania style games and feature a hybrid of action-adventure, parkour movement and puzzle mechanics, accompanied by a strong narrative.

Mechanics

The game will feature parkour movement style, a hacking puzzle and a projectile weapon system. Before each mission the player can also select one unique ability.

Setting

The level will be set on the planet **Pazorix**, it was once home to the **Uvian** an ancient civilization, that used the crystals that grew from the core of the planet to advance life on the planet and also used to create their technology. The planet has a lot of caves where the Uvian used to dwell and only emerged from underground during the night as the galaxy's twin suns was harmful to them. Sadly the Uvian have all been believed to be extinct, however, their crystal treasures remain untouched and many an adventurer has met a deadly fate, thanks to the pitfalls, traps and drones that the Uvian left behind on the planet. The planets terrain is made up of blue grass and green waters. Lots of hills and caves that have intricate connecting systems due to the Uvian. There isn't much vegetation except for a few trees.

Location

The main location of the level is a giant cave that the player lands near. Upon entering they find an area with a relic encased in crystal. To extract the crystal the player must navigate through a series of doors/cave openings that open up once a specific task has been achieved. This means the player has to continually back track to the main opening, to open new door ways and chasms.

Theme

The main location of the level is an abandoned planet with zero life forms other then drones that have been left behind to guard the planets resources and treasures. The cave system should make the player feel abandoned, cold, isolated, trapped. But also amazed by the structures that were left behind by this ancient civilization.

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LEWIS PREEN

SETTING | LOCATION | THEME

MOODBOARD

Outline

In every level, the player will be able to select one of three Brakan **abilities** that Koba can utilise whilst exploring worlds. This dictates the **difficulty** of the level, as one of the abilities may be required in order to traverse through a planet smoothly due to the environmental **conditions** or have a specific type of **enemy AI/NPC's**.

Each level will consist of **puzzles** that will either involve using the players wrist device to **hack devices** or solve **puzzles/riddles**. Running and jumping **parkour platform sections**. Or using a **boomerang projectile** to defeat **enemy AI/NPC's** or **hit targets**.

All the levels will be **randomly selected** when you first enter the Amtolok, meaning no play through will be the same. But once a location has been discovered the player can select that world. Each Level will also feature a **boss/mini boss**.

Dictates Difficulty

Randomly Selected Level

Special Abilities

Hack Devices

Boomerang Projectile

Environmental Conditions

Puzzles and Riddles

Parkour Platform Sections

Variant Enemy AI/NPC's

Hit/Shoot Targets

Boss/Mini Boss

Parkour

The player will navigate the terrain of all planets using movement based on parkour this will include jumping, running, vaulting wall climbing and wall running. Whilst doing specific parkour abilities such as wall climbing and wall running the player will only be able to stick to a service for up to a second before begging to slip, this means the player will have to utilise jumping between points strategically. The player will also have to crouch during sections where enemies cannot be defeated by conventional means thus having to find cover and sneaking around to either find a good vantage point to hack an enemy or drop a trap on them.

Hacking

The main games mechanic involves utilizing the characters hacking device which can be used to solve most of the games puzzles, which includes hacking into terminals, door panels and enemy robots such as drones. When hacking drones the player takes control of the drone in order to shoot other drones or enter small passages such as vents in order to unlock a door from the other side or hit a hidden release button that opens the door or secret passage way.

Boomerang

The main weapon that the player will be using to defeat enemies will be a projectile boomerang. The boomerang can be used to destroy multiple enemies at once, it can also be used to hit objects such as buttons that will unlock doors and secret areas.

Dash

Using the DASH ability the player can navigate through sections with a quick speed boost in the direction the player is facing. This only works on a vertical basis, so the player can not use it to double jump. (For double jump see Jetpack below). This means that if a gap is a little to far for the player to jump across they can utilise the dash ability to make it across the gap. The dash like all the abilities will have a cool down meter. So the player will have to carefully plan out when to use this ability.

Grappling Hook

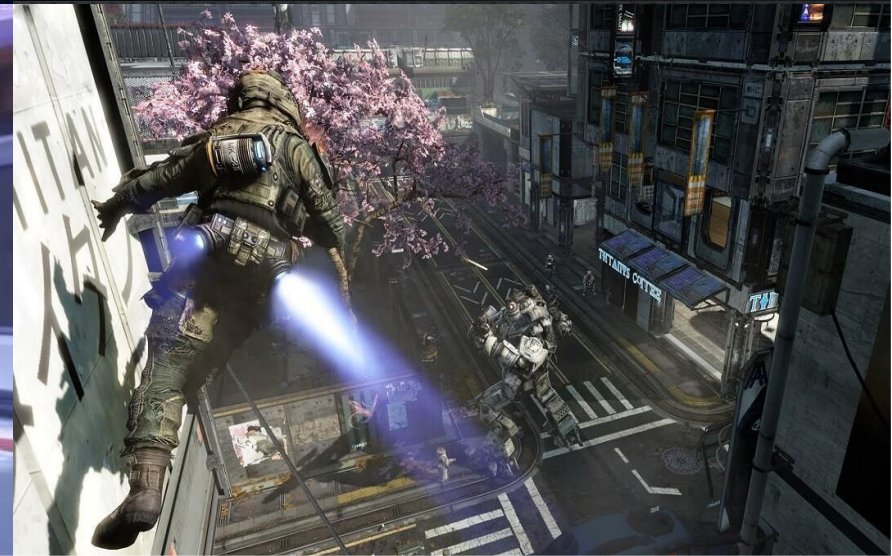
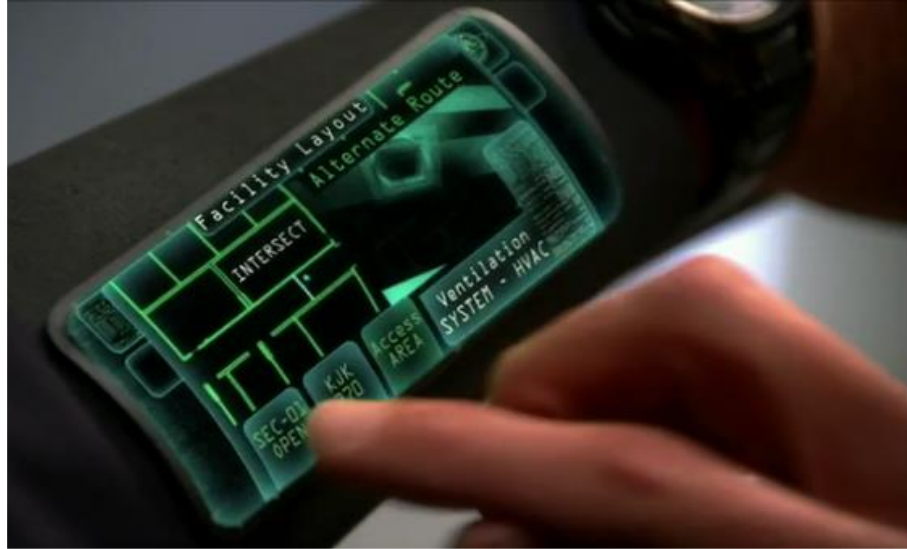
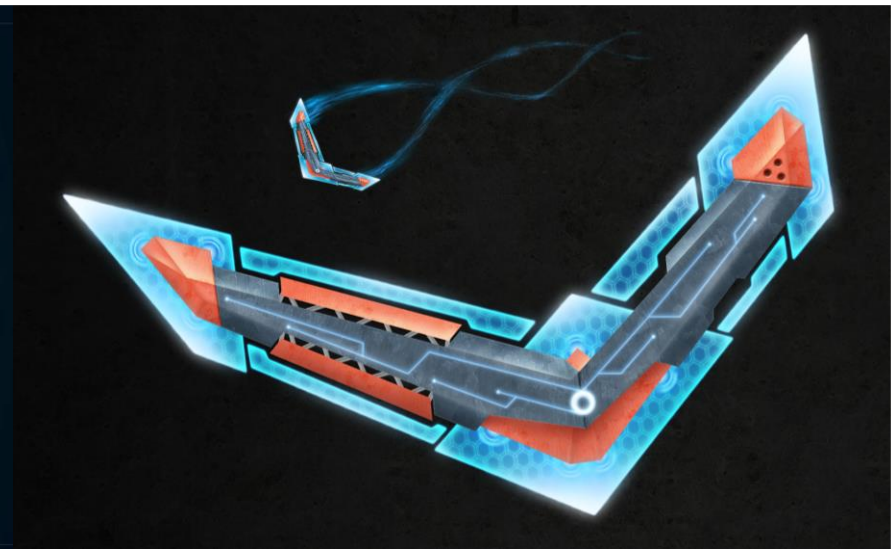
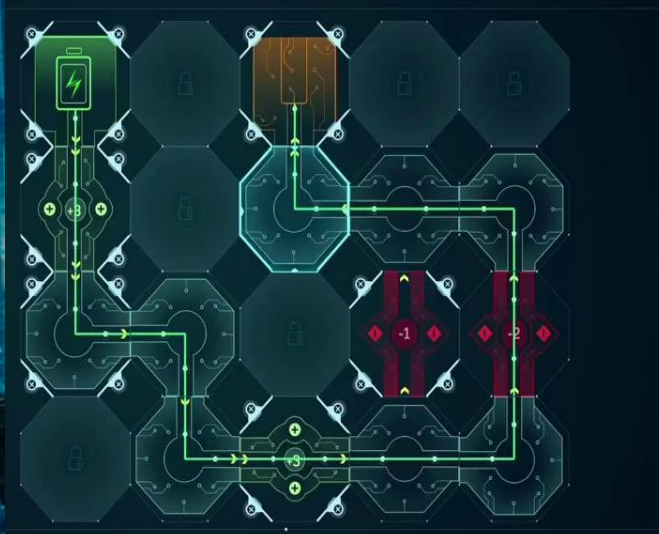
Using the GRAPPLING HOOK ability the player can traverse in any direction faster with a specific distance (TBD). However, the grappling hook will not stick to every surface as some surfaces may be loose which the grappling hook could cause to fall, forcing the player to find an alternative route. The grappling hook can however be used as a weapon to destroy specific enemies such as Drones. As stated above the grappling hook will also have a cool down meter.

Jetpack Double Jump

Using the JETPACK DOUBLE JUMP ability the player can add an extra boost that doubles the momentum of the first jump upwards, effectively making the jump 3x as powerful. The player can utilise this to reach higher platforms. That the players natural parkour jump cannot reach. Again as mentioned the ability will have a cooldown meter.

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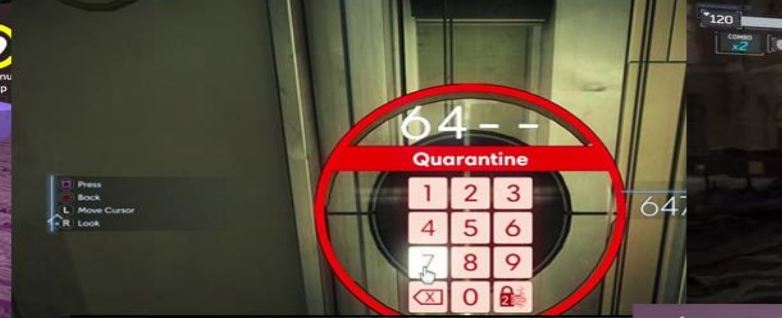
LEWIS PREEN

MECHANICS

MOODBOARD

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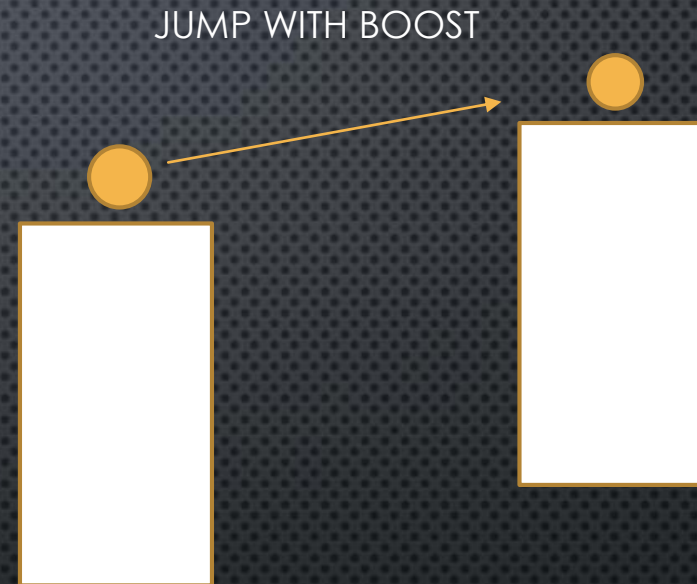
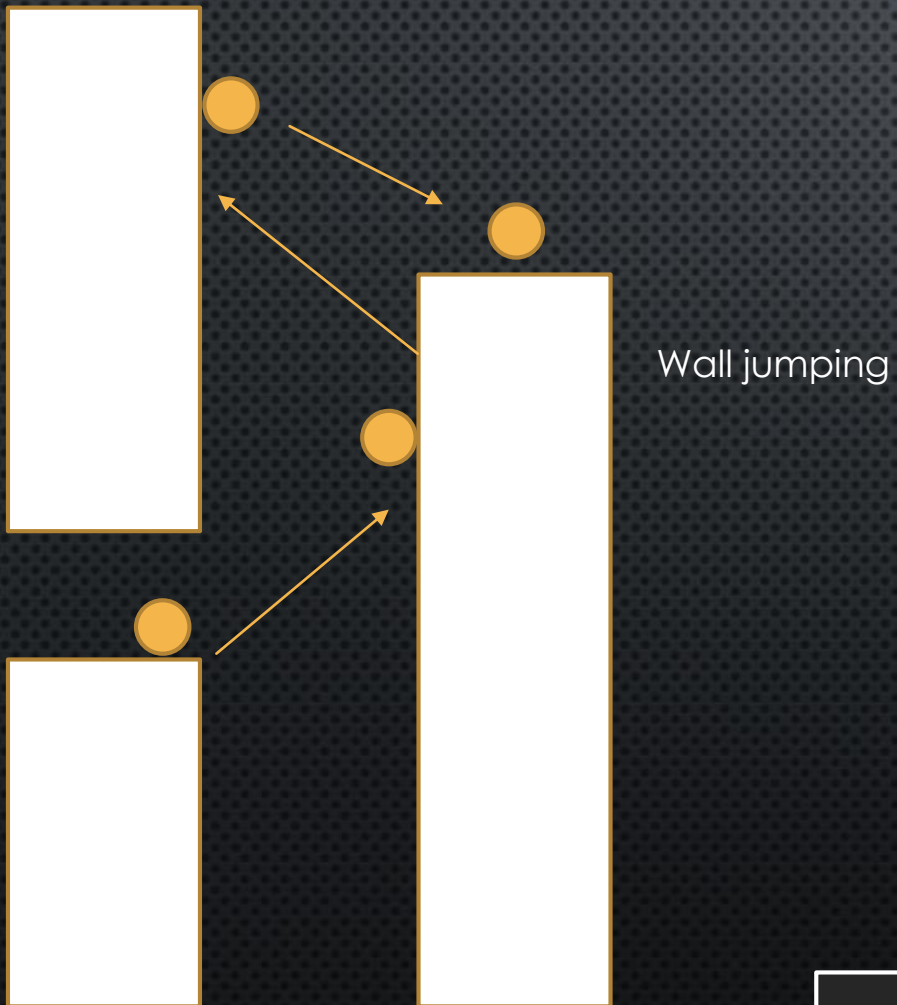


TERRY CABORN

MECHANICS

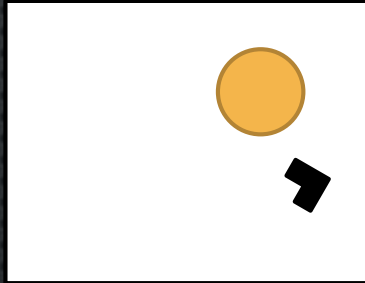
MOODBOARD

PARKOUR



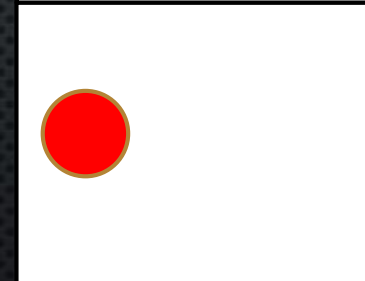
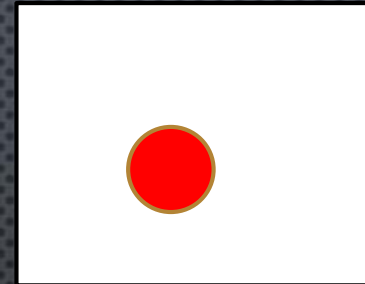
TOP DOWN VIEW

BOOMERANG ENEMIES



LOW GROUND

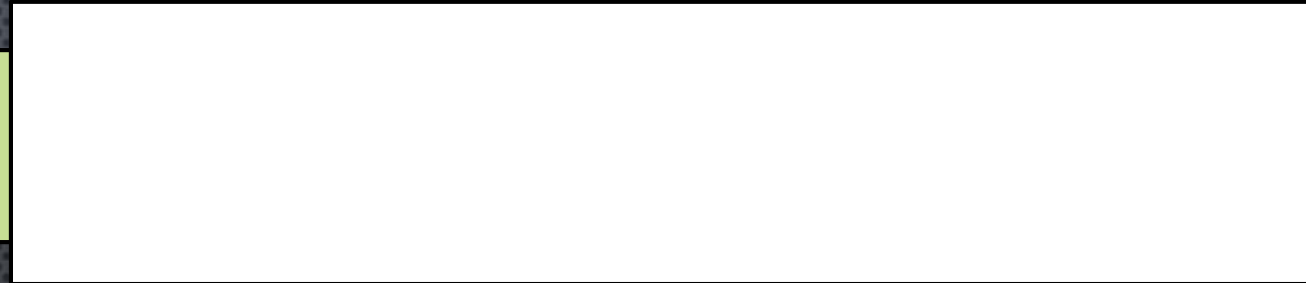
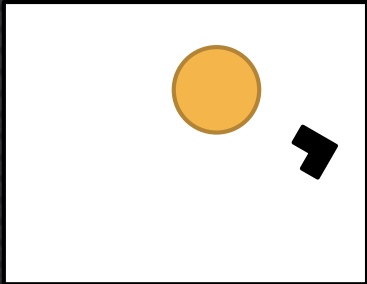
Can hit multiple enemies
Covers Long distance along with high
and low ground



HIGH GROUND

TOP DOWN VIEW

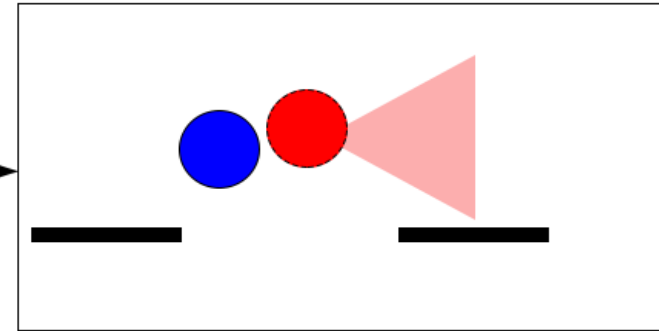
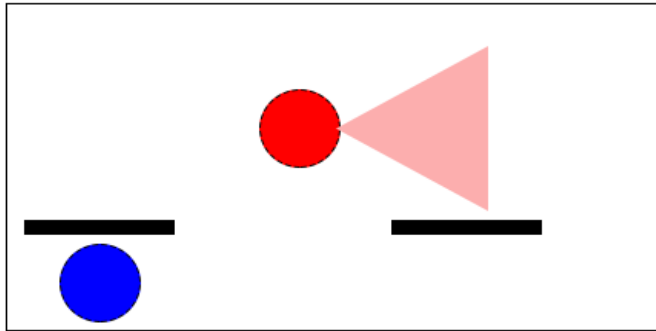
BOOMERANG ENEMIES



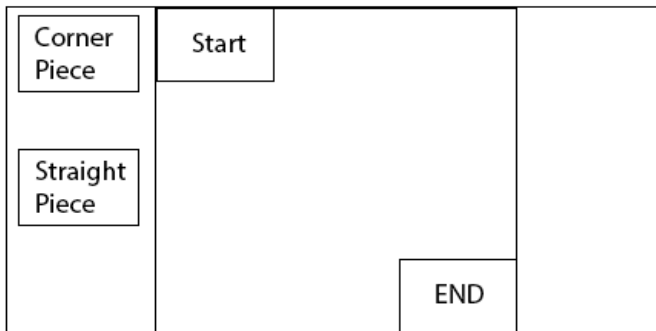
Breakable objects for trigger and
creating paths

Triggering objects (to drop)

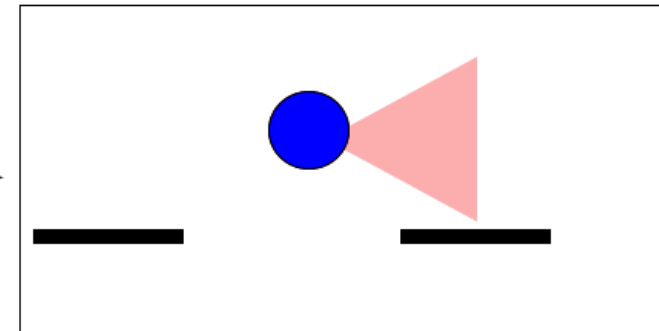
Activating levers



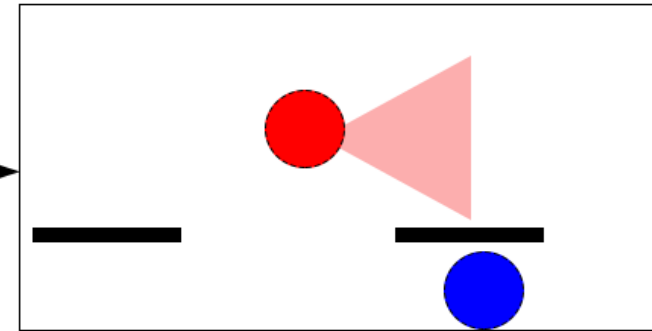
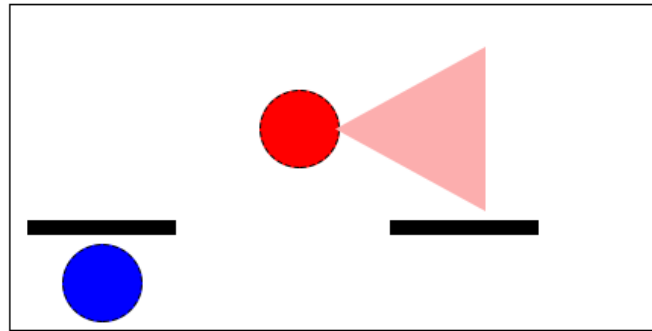
Player Sneaks Behind Drone to Hack it



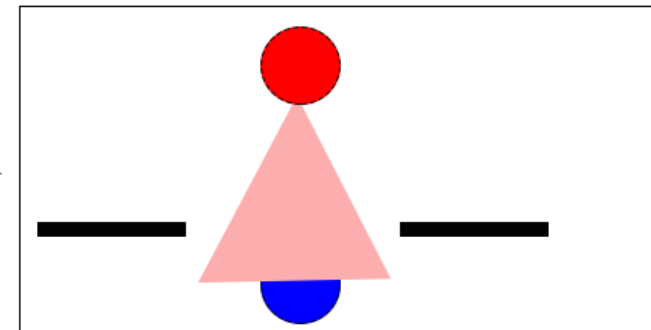
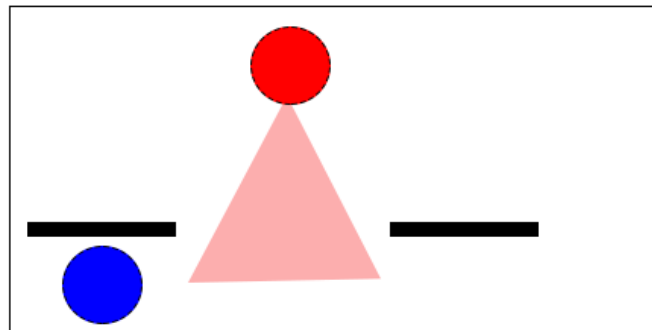
Player must drag and drop the pieces onto the puzzle, and get the power from start to finish



Player will take control of the drone, with movement and shooting possible

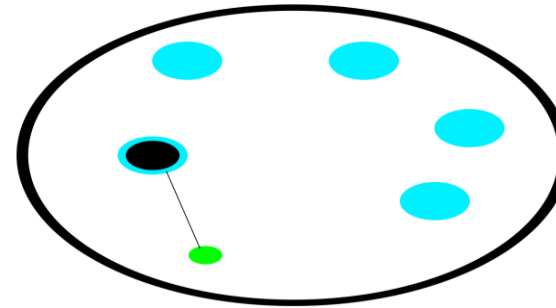
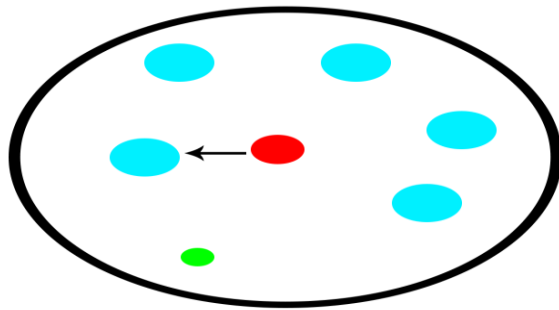


Get Behind Cover Without going into the Drones Line of Sight



Drone Attacks When Player has Been Spotted

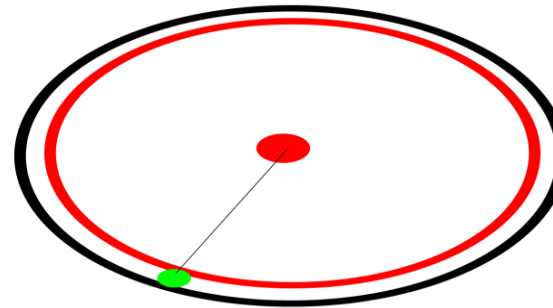
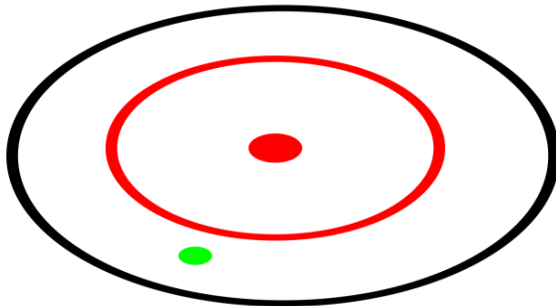
Stage 1



Boss moves around stopping under stalactites to shoot. Player hits them with boomerang to remove armour

● Boss
● Stalactites
● Player

Stage 2



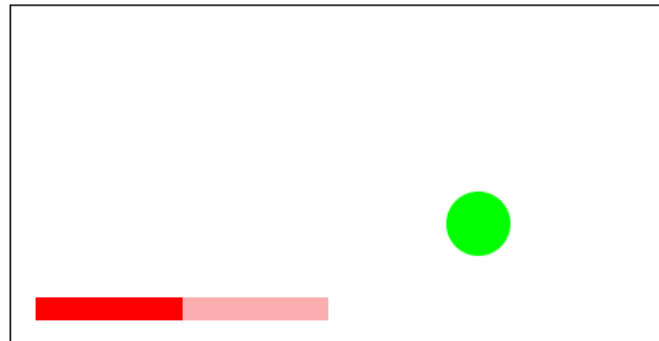
Boss sends out a shockwave. Player must parkour to avoid it and throw the boomerang at it to deal damage



Full Oxygen



Player Loses Oxygen



Player Picks up Oxygen Tank



Full Oxygen

PLANET PAZORIX

“Delve Deeper”

The elite have been sent to the Planet to secure the Relic of the lost tribe of Uvian, but what else will they uncover.

Main Objective – Recover the Relic from the Uvian temple.

Sub Objectives – Collect 10 hidden crystals. Complete the Parkour section without slipping. Destroy 4 Drones with one Boomerang.

START

ACT 1

Cut scene 1: Arriving and Landing on Planet

Enter giant cave

Tutorial of Parkour, Hacking and Boomerang

Find locked Relic

Cuts scene 2: Open Cave 1

Cave 1 – Parkour and Hack Puzzle

Cuts scene 3: Open Cave 2

Cave 2 – Drone Stealth and Destroy Puzzle

Cuts scene 4: Open Cave 3

Cave 3 – TBD Mix of puzzles

ACT 2

Cave 3 – Sub Boss Battle (Drone Hack)

Cut scene 7: Open Cave 4

Cave 4 – TBD Mix of Puzzles

Cutscene 8: Relic Open

Collect Relic

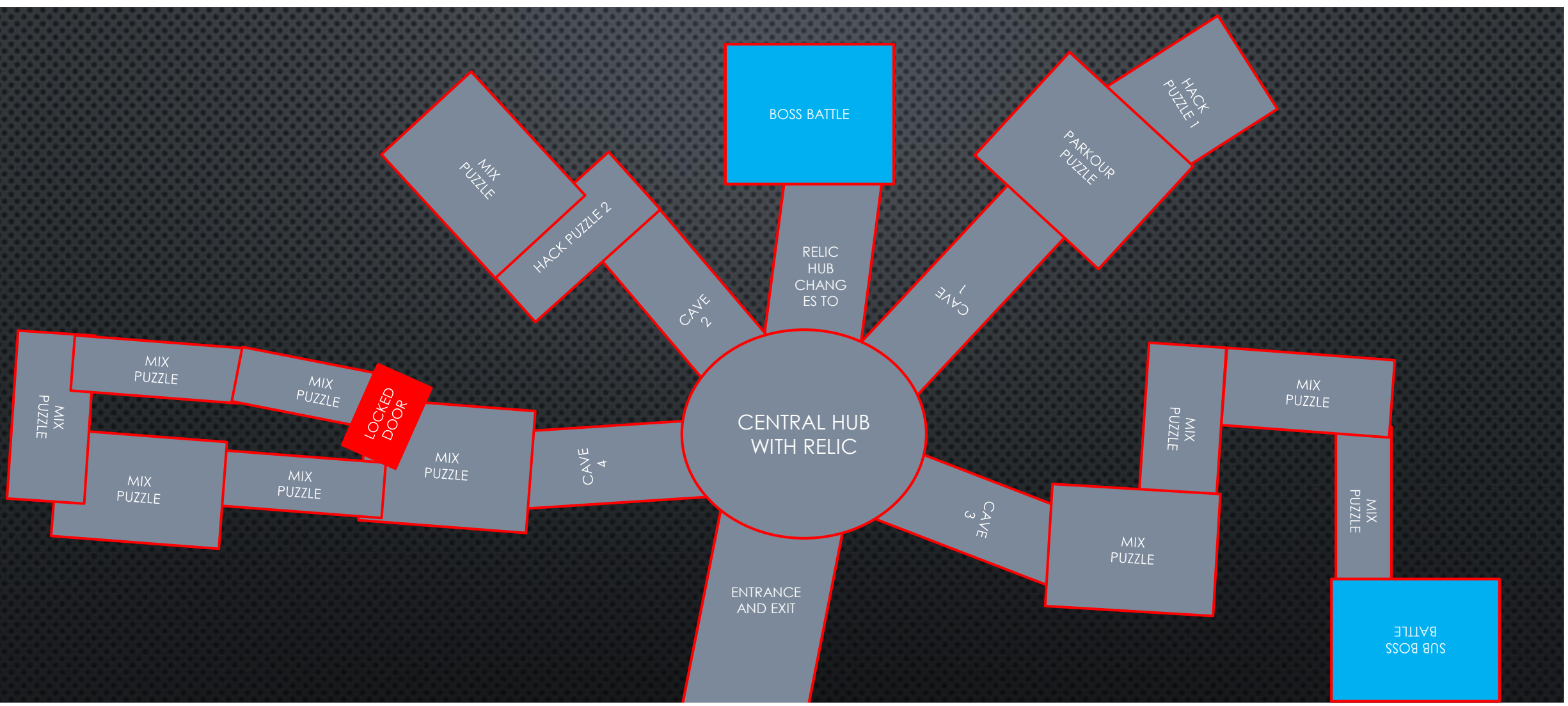
ACT 3

Cutscene 9: Boss Appears In Relic Room

End Boss Battle

Cutscene 10: Victory and Escape

End



PLANET PAZORIX

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START

ACT 1

Cut scene 1: Arriving and Landing on Planet

Enter giant cave

Parkour To Crystal Chamber

ACT 2

Activate Relic on Crystal Chamber

Cuts scene 2: Open Door to Drones

Drones Section – Parkour Battle Drones

Collect Relic from Drones

Deliver Relic to Crystal Chamber

Cuts scene 3: Open Door to Parkour Puzzle

Parkour Puzzle Section – Parkour Puzzle

Collect Relic from Parkour Puzzle

Deliver Relic to Crystal Chamber

Cuts scene 4: Open Door to Boomerang Puzzle

Solve Boomerang Puzzle

Collect Relic from Boomerang Puzzle

Deliver Relic to Crystal Chamber

Cuts scene 5: Open Door to Boss Battle

ACT 3

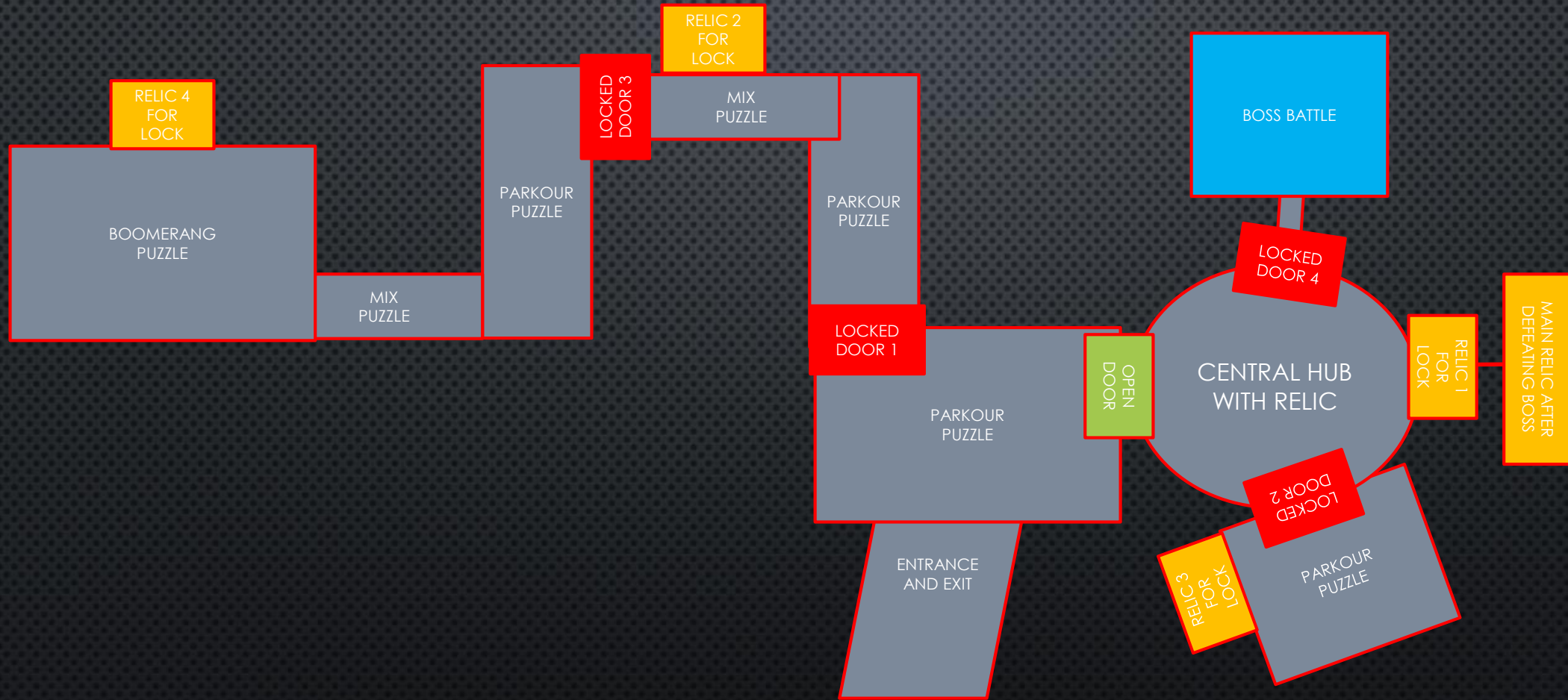
Defeat Boss

Collect Gold Crystal

Escape Cave

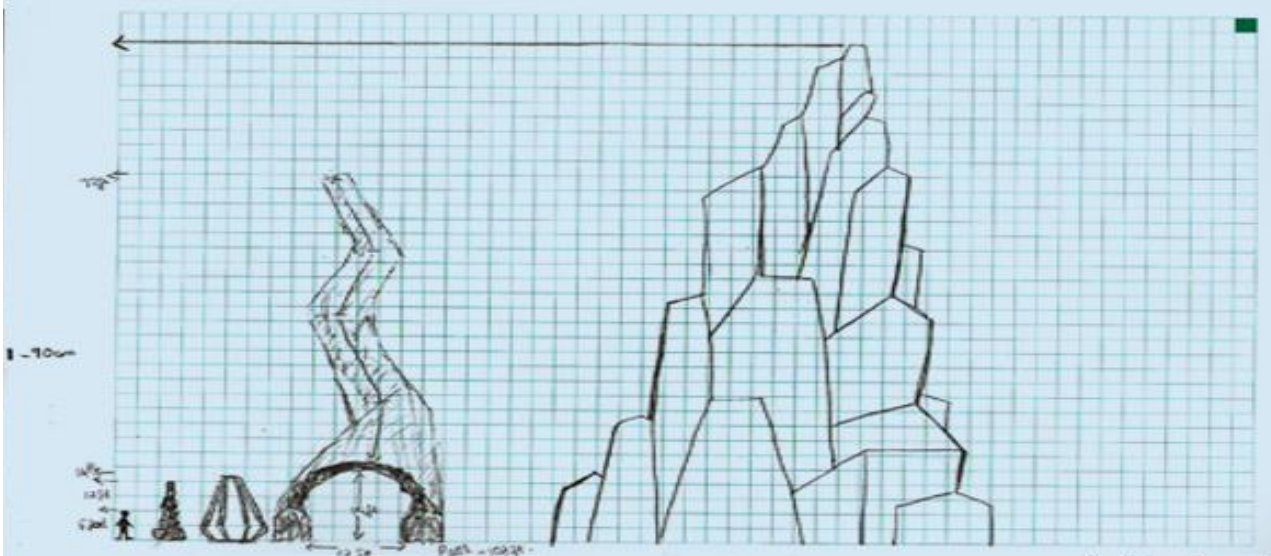
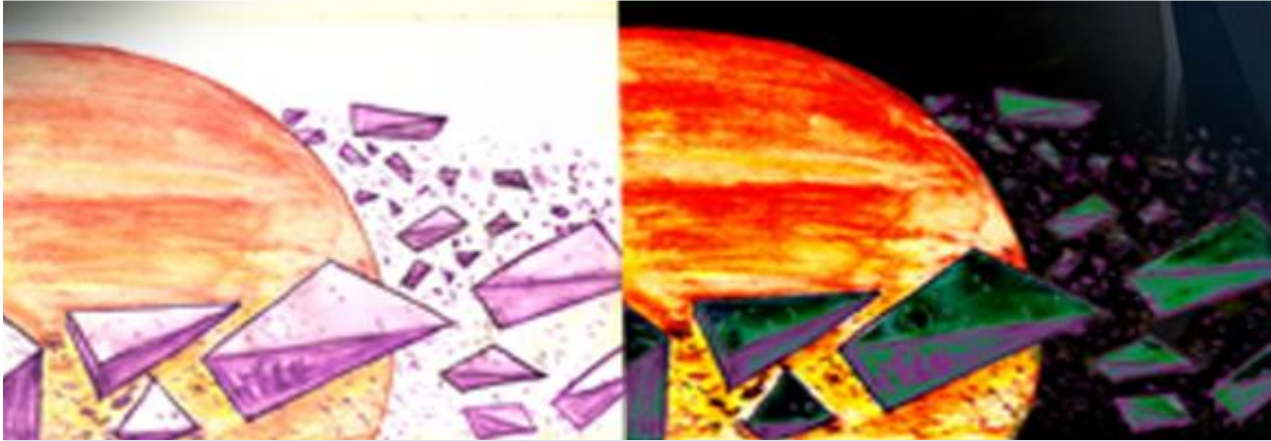
Cut scene 6: Victory and Escape

End

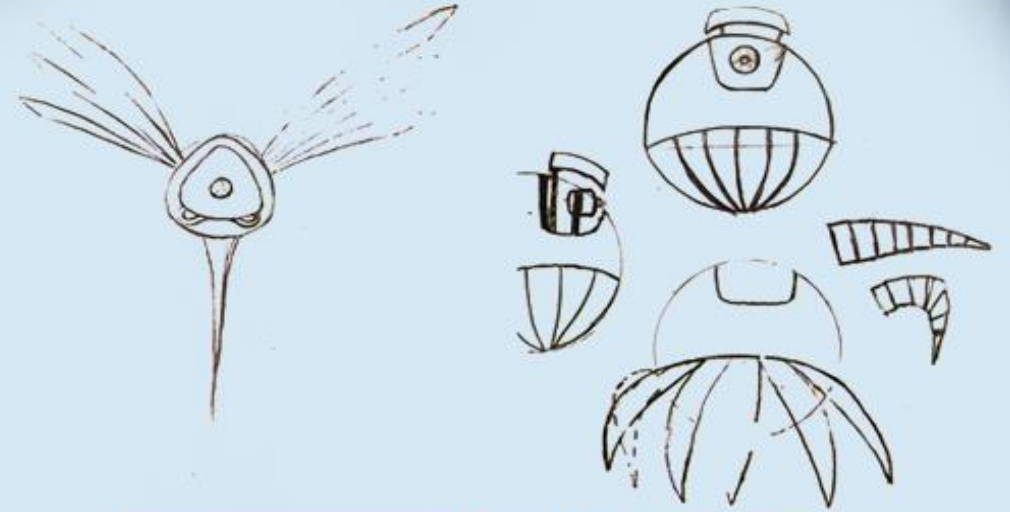


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Teesside University



Teesside University

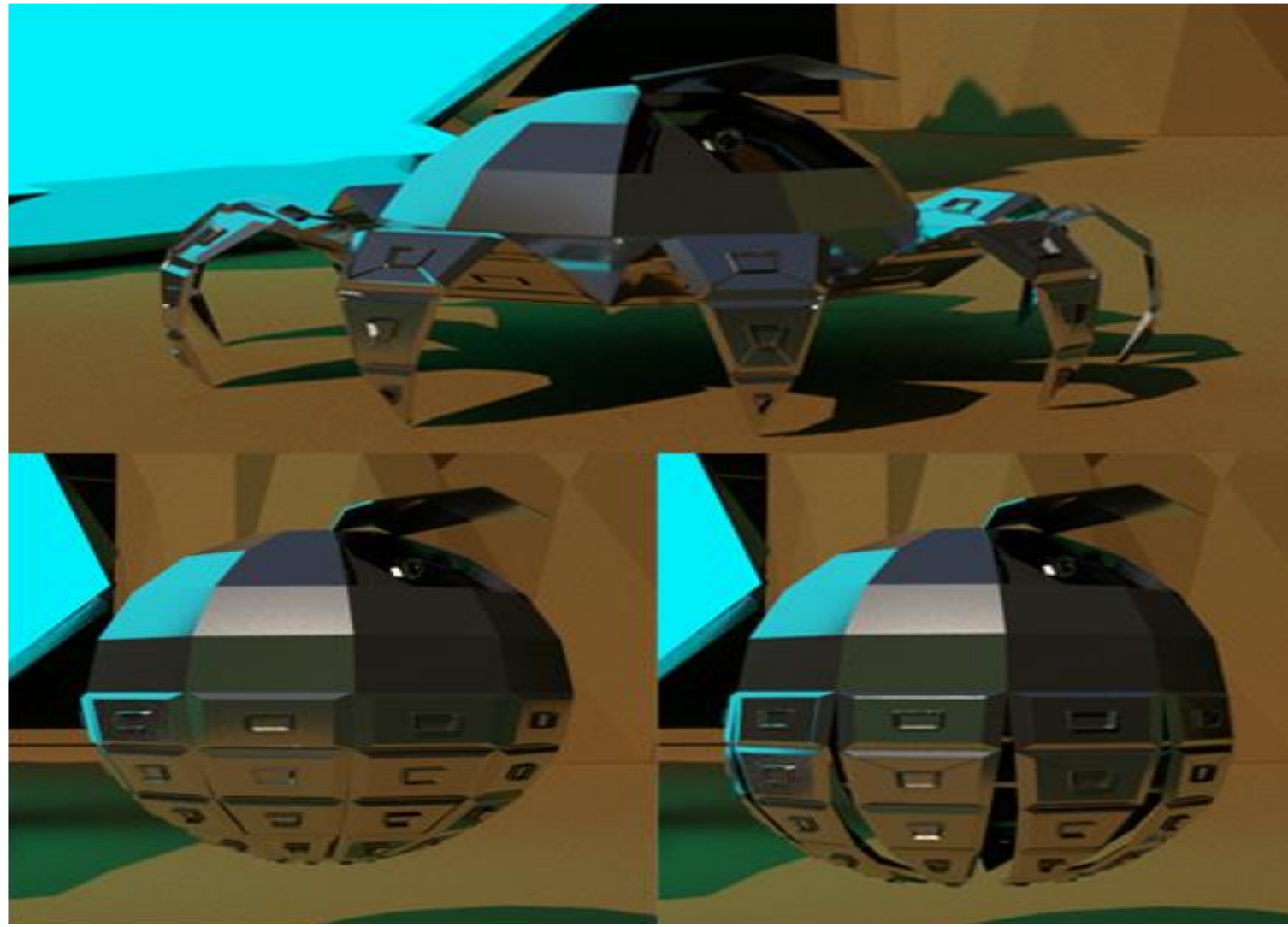
MELWIN AUGUSTUS

DEVELOPMENT

CONCEPT ART

RELIQ

PRE-PRODUCTION



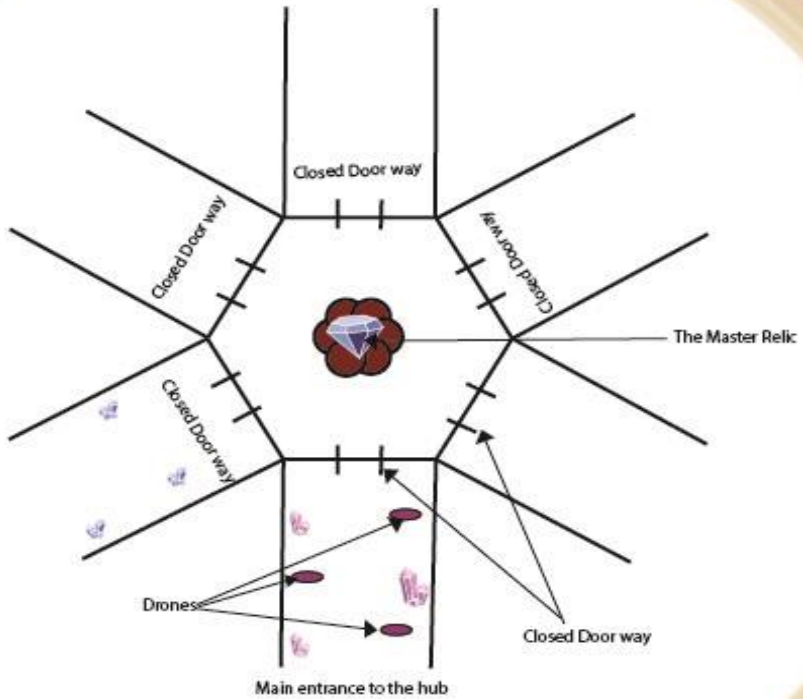
MELWIN AUGUSTUS

DRONES

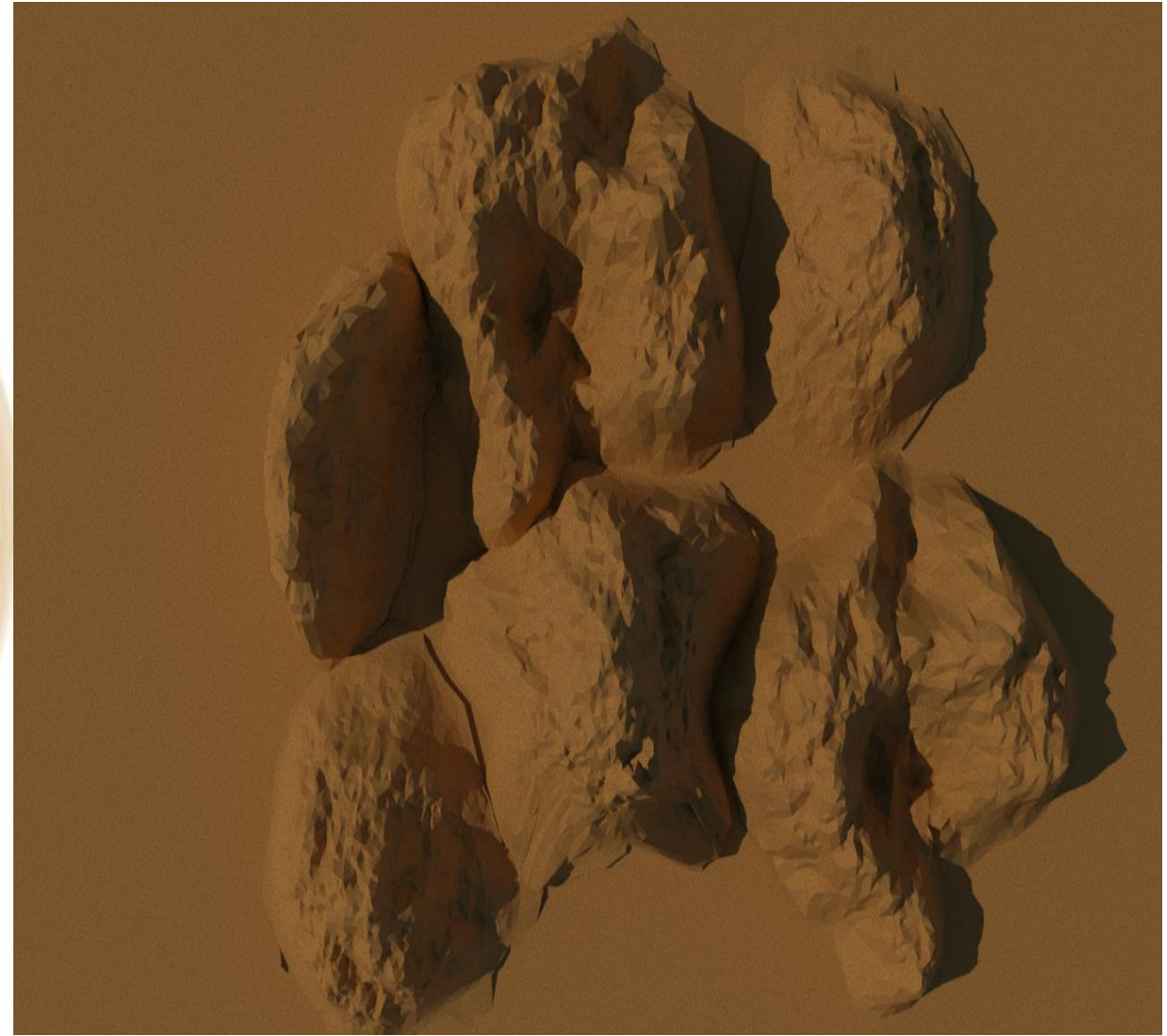
ART

RELIQ

PRE-PRODUCTION



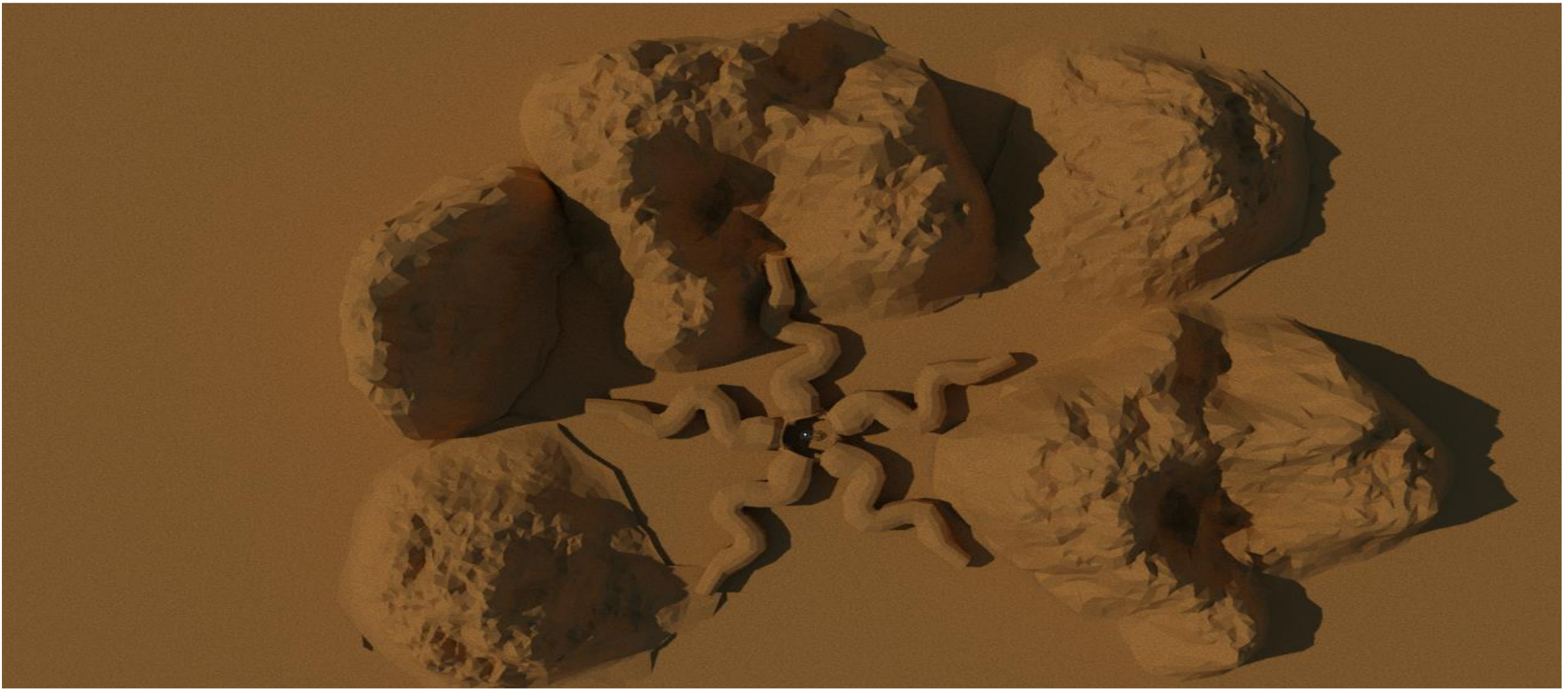
Open World



MELWIN AUGUSTUS

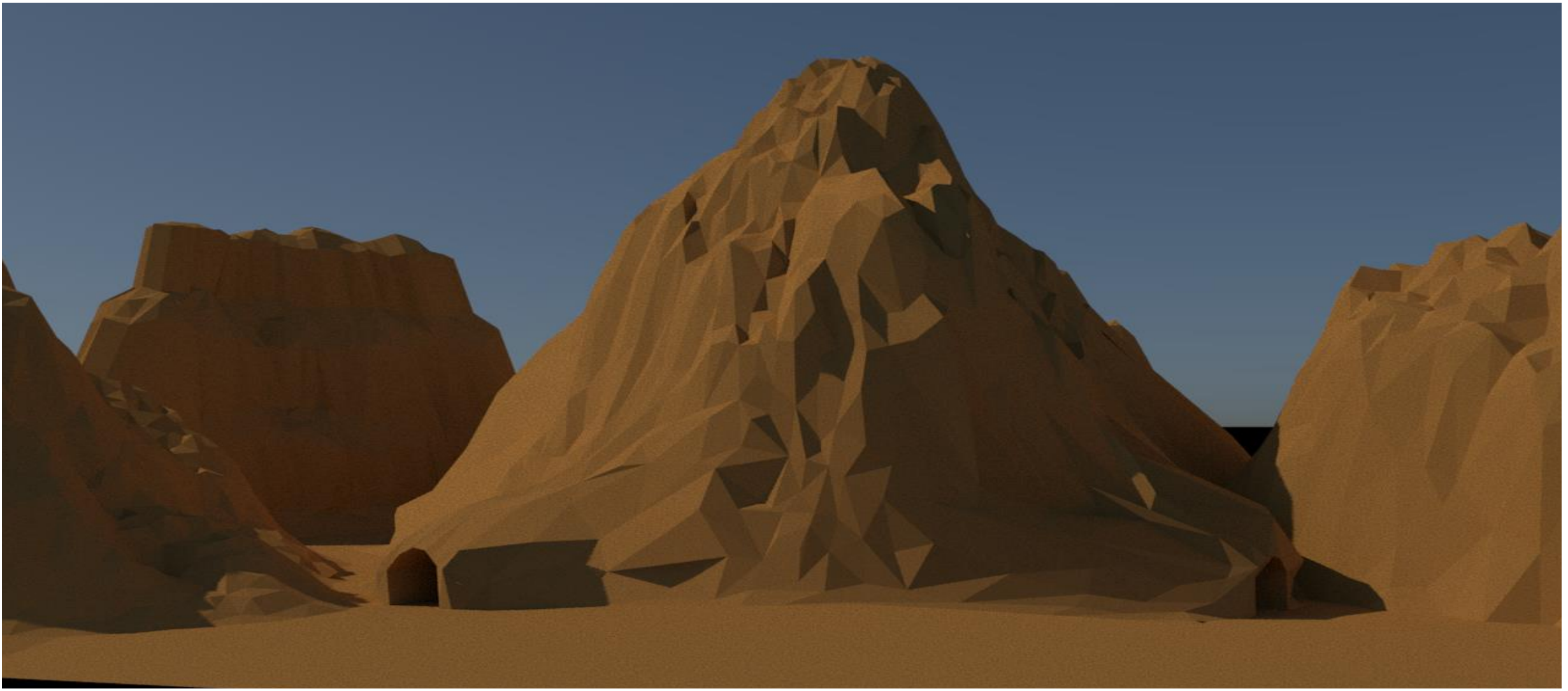
CENTRAL HUB | ROCKS

ART



RELIC

PRE-PRODUCTION



MELWIN AUGUSTUS

CAVE ROOF

ART

RELIC

DEVELOPMENT DIARY



TEAM ROLE

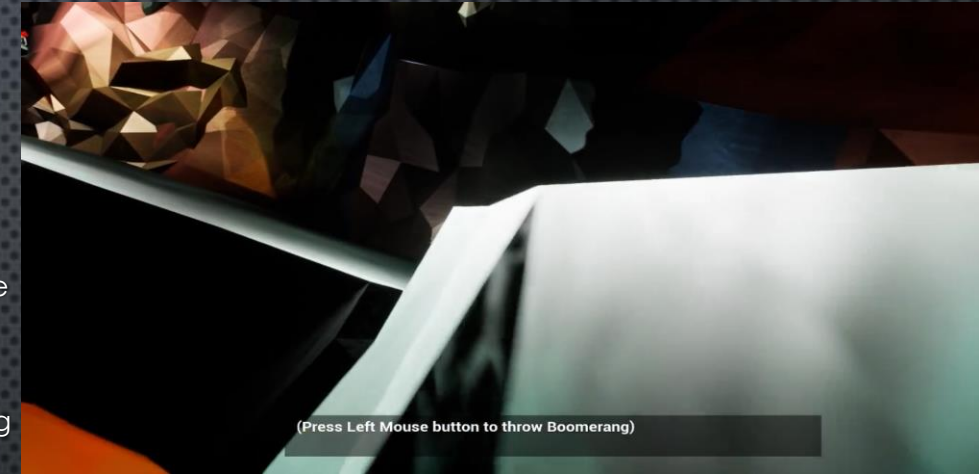
I was chosen by the team to lead the project, as I have a strong background in leading team productions. Originally I was set with planning all the documentations and presentations as well as assigning tasks to various members of the team. I took over from the player mechanics as the original team member was struggling as it was his first time working in Unreal. I was originally going to be working on sound but I handed this over to another team member due to taking over mechanics. My other main role was creating the games UI and working on playtesting which consisted of a lot of working within the teams created blueprints and white boxes, modifying them and making sure everything was to scale, which was a time consuming process which unfortunately cut into UI production. This was mainly due to the fact that we didn't have a level from our design team until 3 weeks before the end of the project which led to me and the teams Jr, Mel Augustus, having to rescale and reposition most of the original white boxed items.

Parkour Movement

As stated early I took over from the player mechanics and I created a parkour system that allowed the player to wall run and also wall climb up particular objects.

I drew inspiration from games that have used this mechanic very well such as; Overwatch and Titanfall.

I wanted the player to feel like they were actually running along the wall and so added collision detectors to the right and left of the player character this made the player look like he was running on an angle.



Crystal Chamber

Along with the artist I worked on the Crystal Chamber, mostly in the blueprinting side. I created a series of Booleans that meant the player had to hunt down the crystals and place them in the corresponding slot that I had highlighted to the player using point lights built into the blue print.

Using these Booleans I also created death spawns that correlated to what the player had collected or if they had opened a specific door so the player teleports back to that original spot.



LEVEL DESIGN

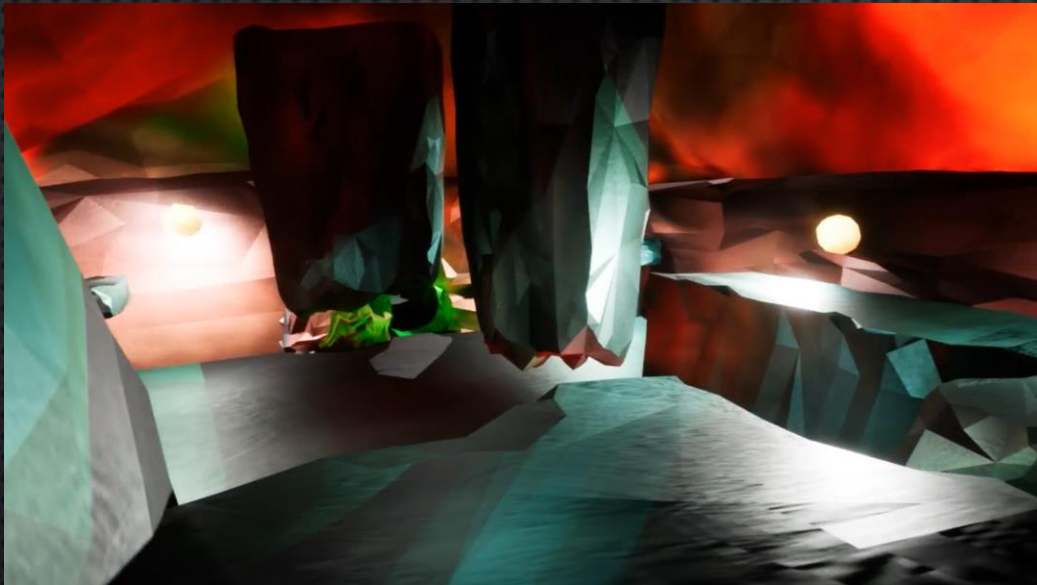
Due to the level designs taking quite a while with work Terry and I member worked on level sections. I created a quick parkour puzzle section.

In this section the player hits a switch that opens a door and the player has to traverse to the door and collect the crystal. Originally this was set to a time loop but due to complications during migrations the time event had to be removed and so it just became a quick parkour puzzle, but with the addition of making it more challenging to stick to wall running so the player has to hit the sweet spot.



Also due to the original level design Mel and I were given we spent a lot of my time fixing the sizing and positioning of objects. I also helped with making sure the collisions were set correctly from the models I received and also created various trigger boxes for events such as death, UI conversations and the Booleans mentions earlier.

Because of the loss of time waiting for the levels to be added I stopped working on UI to focus on helping out the team. So unfortunately my main menu, level select and pause menu never made it into the final production. I also missed out on adding the player animation and particle effects such as a fog/dust effect when player landed.

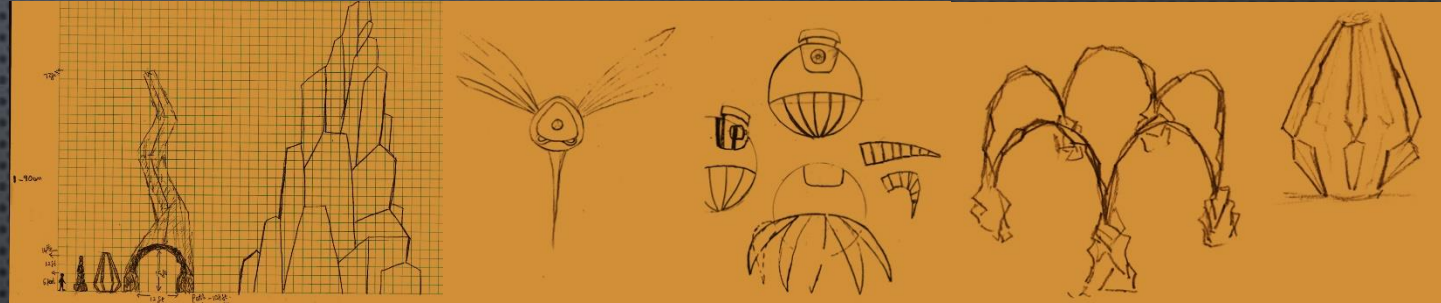


Other things that got scrapped included the player abilities I created such as the rock boost dash which allowed the player to leap twice the distance straight. Rocket pack boost that gave the player the ability to jump up in one direction for height. Finally the grappling hook that allowed the player to shoot diagonally attached to a specific material/mesh. However, making sure the level played smooth by the end of the project became my top priority.

TEAM ROLE

Created all the Art and animation assets in the game.
Visualized and created colour and shade for all the assets.
Play tested to identify issues related to collision of assets intractable by the player for example, the runnable and climbable walls created by the mechanics team and to reiterate till the assets are useable in the game

Concept Art and Development



Character design and animation



TEAM JR | ANIMATION | ART | LEVEL DESIGN

MELWIN AUGUSTUS

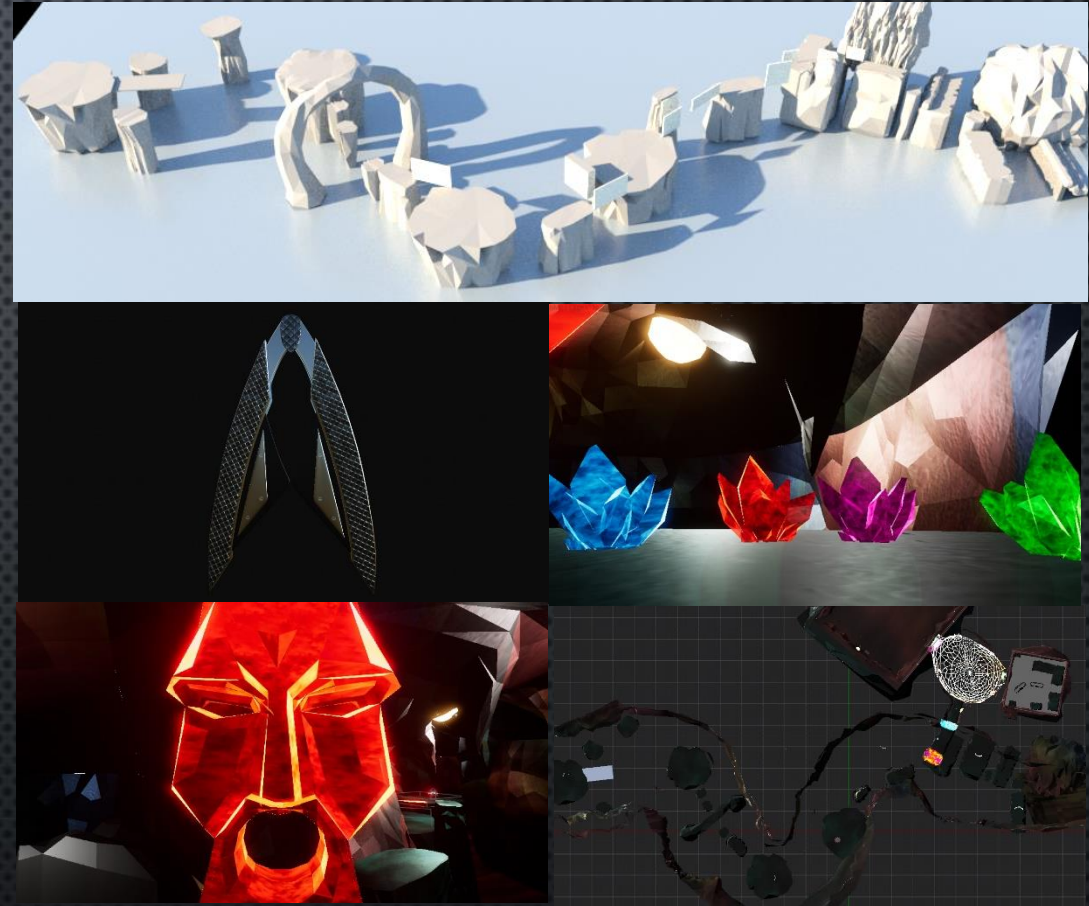
Other inputs to the team

Game play ideas
Map propagation
Team management

Assets completed but unused

Animations :
Main Character
Drones
Boss character

Models :
Space ship

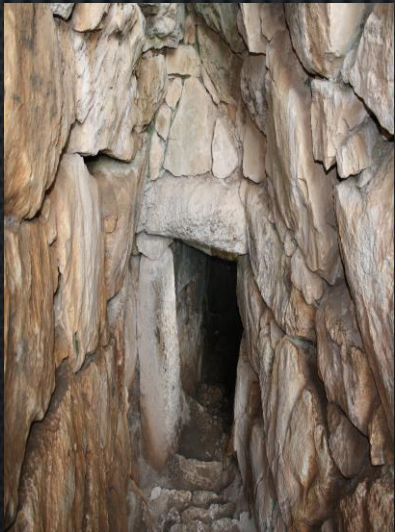


TEAM ROLE

Within my team I was tasked with creating levels for our project. As a level designer, my role was to report back to my team leader (Lewis) for constructive criticism and compliments regarding my level creations.

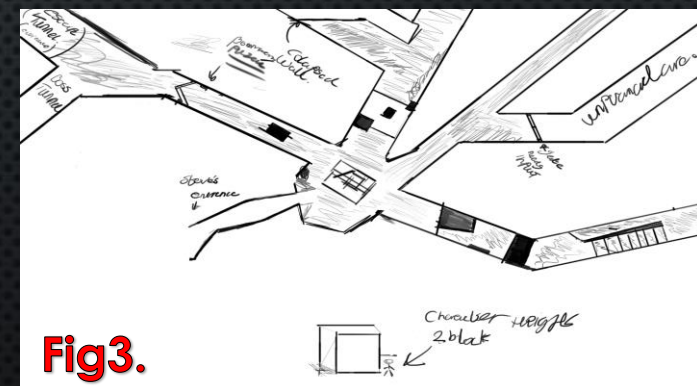
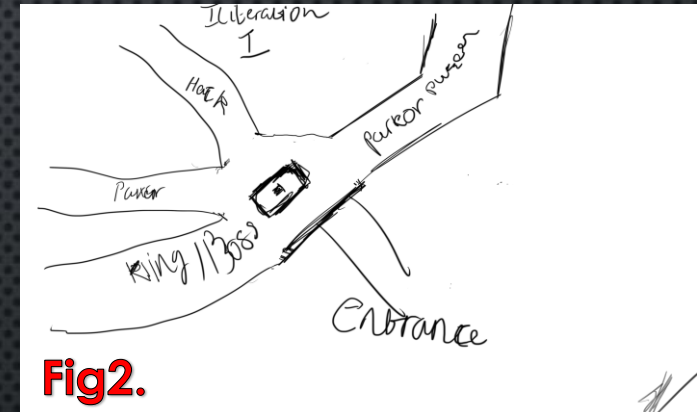
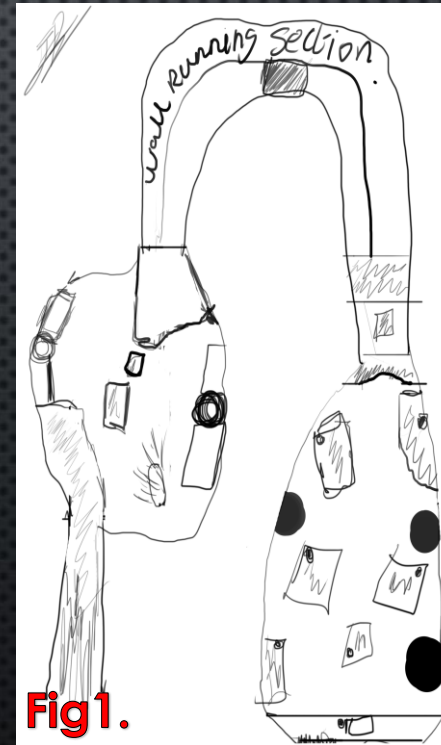
LEVEL RESEARCH AND INSPIRATIONS

I began my endeavor by looking into the caves using Pinterest as being one of the sources for high quality and detailed photos. We as a team decided to use a cave network as our base principle of our main level. The main concepts I looked into were huge open caverns using artificial and natural light sources. I understood from the beginning that there was going to be an issue with lighting as most cave complexes are deep underground and lit by artificial light sources such as lamps and spotlights.



LEVEL SKETCHES AND CONCEPTS

So with my level research compiled, I began to drawing out level designs. Fig1. Is original design of the cave remade in Photoshop. Fig2. Is a first draft of the hub zone, this will be the key location within the level. Fig3. Is a more developed version focusing on a more based platformer.



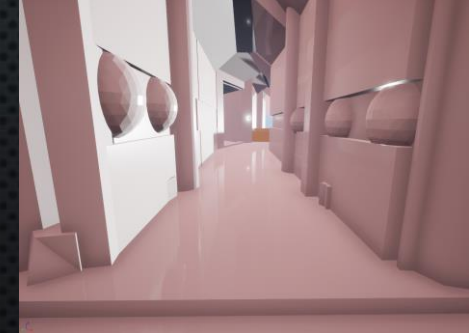
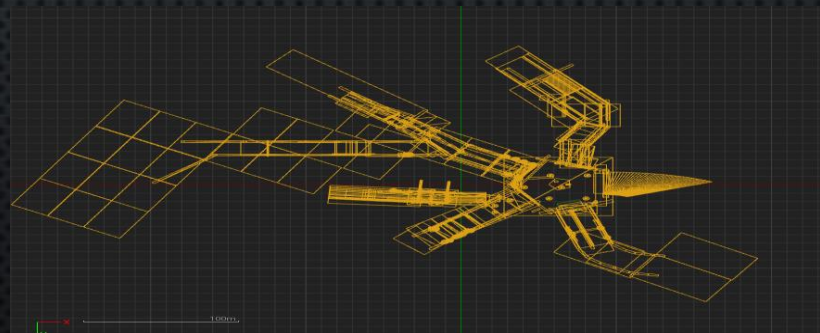
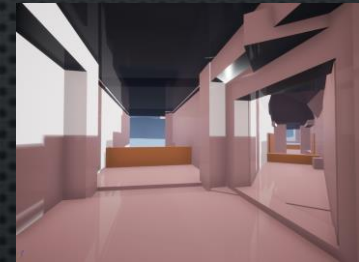
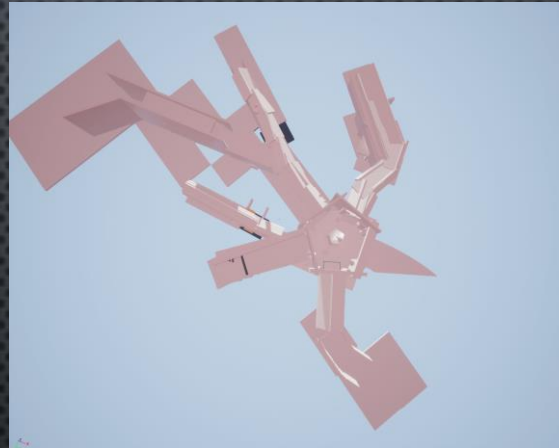
LEVEL WHITE BOXING

This is a collection of images showing the white boxing of the levels, the cave tunnels show how the game will utilise parkour and central hub shows how the player has to come back and forth between the cave using different tunnel connections.

CAVE TUNNELS



CENTRAL HUB



TEAM ROLE

I was assigned the role as a mechanics designer. This consisted of creating prototypes for each mechanic and then making them work within the game. The prototypes were for the level designers so they had a good idea on how each mechanic worked so they could plan their levels accordingly.

Boomerang



I picked up the boomerang mechanic when Stephen moved over to level design. I first made it functional with the drones and also to return after 6 seconds of being out. We always wanted there to be an auto target system with it too, so I implemented this with the drones first. I then used this framework to make it auto target other things like the falling rocks in the boss level, the puzzle at the end of the tunnel, and switches in the parkour room.

AI



As I've never touched AI in Unreal before, I researched 3 possible ways in which I could implement them. These were creating a sequence animation which the drone followed, a path in which it followed, or having it move between points. I chose the last option as it was really quick to implement in each levels and would also fit with the boss drone too.

When creating the boss, I wanted there to be 2 phases to the boss fight. The first phase would be the boss moving between locations, firing at the enemy, while the player hits rocks to fall onto the boss to damage it. Then once the boss' armour was destroyed, it would move to the middle of the room and send out a shockwave, which the player would have to wall run and throw their boomerang to kill the drone. I chose this as it combined the 2 main mechanics of our game, and a boss fight should incorporate everything the player has learned so far.

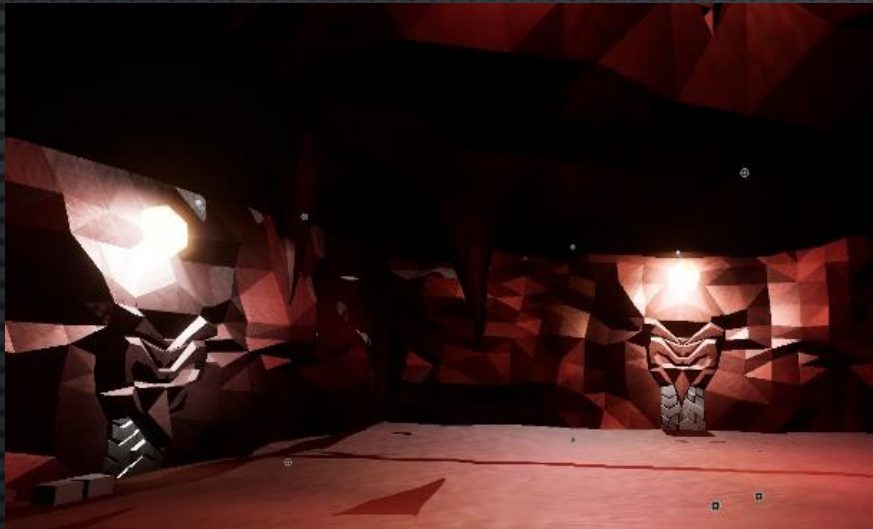
BOSS



UI & Sound

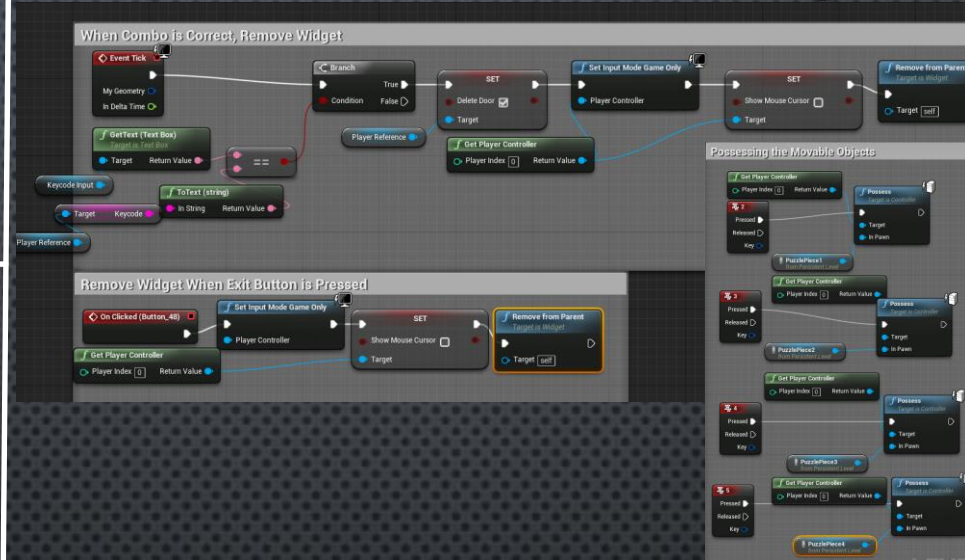
Throughout the project I collected sound that would be used for the things I was working on. This meant that if we were under time constraints towards the end of the project, then we could just stick with them. I gathered and placed the sound for the boss level, cave sound, rocks crumbling, shockwave spawning, bullet firing, boomerang thrown and return. I also helped Lewis out with UI, helping him implement it within the level.

Boss Level

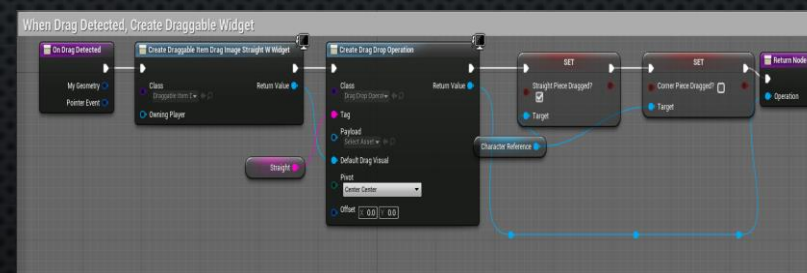


I created the level for the boss as it made sense for me to as I was making the boss functional. I only needed a tunnel leading into the room. The walls in room had to allow the player to wall run on them so this meant working closely with Lewis who created that mechanic. I also added in all of the UX for this level so it meant less to do later on in the project. When the player would die, I made the world go black and white, as this was the way I made the health visible to the player.

Keycode & Possessing



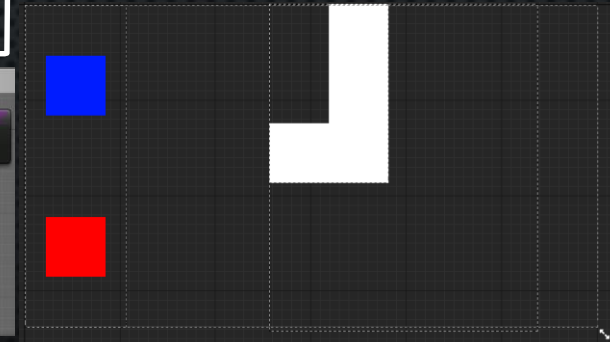
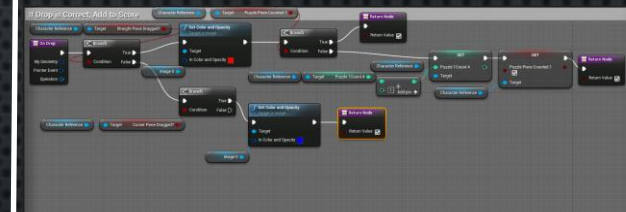
These were the quick and simple mechanics we had within our game. These were made so you could access other parts of the level. The key code would there to open a previously locked door, and the possessing of objects to move them out of the way so the player could progress. These were scrapped as we made the doors open by themselves once the player reached a certain part of the level.



Hacking

I was more focused on the functionality of this mechanic rather than having the buttons look the way they should. The red button was a straight piece and the blue is a corner piece. This mechanic was scrapped later on so I never finished the full functionality with being able to turn the buttons.

However with the first puzzle complete, the framework was in place to quickly create additional ones with ease. Therefore if a level designer wanted to put one, then it was really simple to create one.



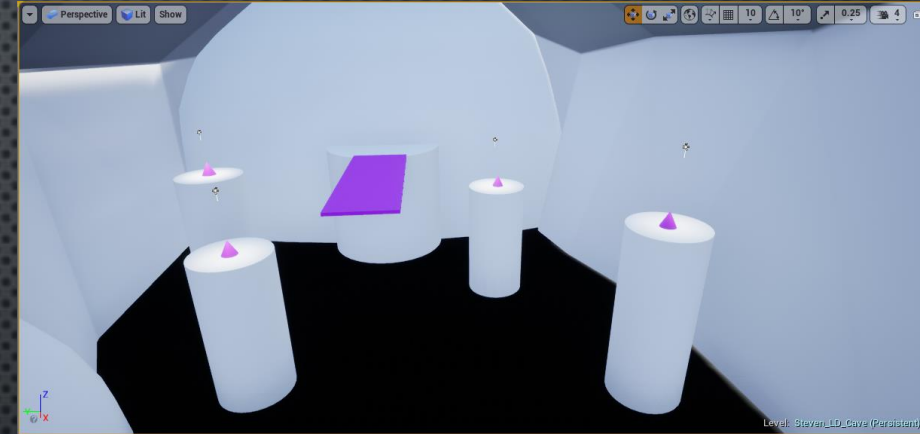
TEAM ROLE

My job was to look into the game mechanics and gameplay, along with moving onto creating the level.

Overall I have worked on Conceptualization stage, game mechanics and implementation of Gameplay. Along with figuring out the measurements for the environment and predefining the player Characteristics. Last but not least I have Prototyped few gameplay mechanics and done Level design with a bit of Puzzle design.

Puzzle Design

Here, towards the end of the level, the player will come across a small puzzle which he/she would need to solve in order to access the next stage.



Working:

There will be 4 pillars surrounding the gate, each pillar will be having a switch/trigger on top of it. Upon activating/deactivating the switches by using your weapon. It activates the path connecting the gate and the players platform.

So, triggering each switch would either shorten the path, or add to it. Based on this, the player will have to find the right pattern to switch ON or OFF the right triggers. Creating the right distance for the player to cross over.

**The blueprint implementation for the puzzle was done by Terry*

Measurement

I spent some time defining and testing various parameters. Ranging from various abilities stats to environmental platform gaps

This part was quite crucial and was later finalized by the team lead



Level Design

The intention behind this level was to have the mechanical breakdown introduced to the player progressively, and give a sense of exploration at the same time.

- Difficulty

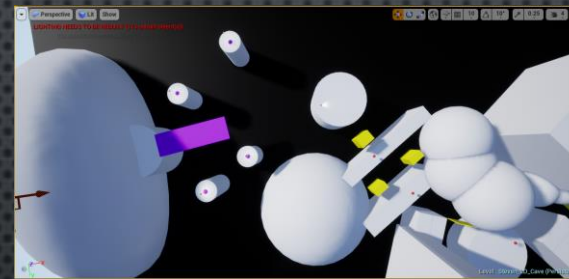
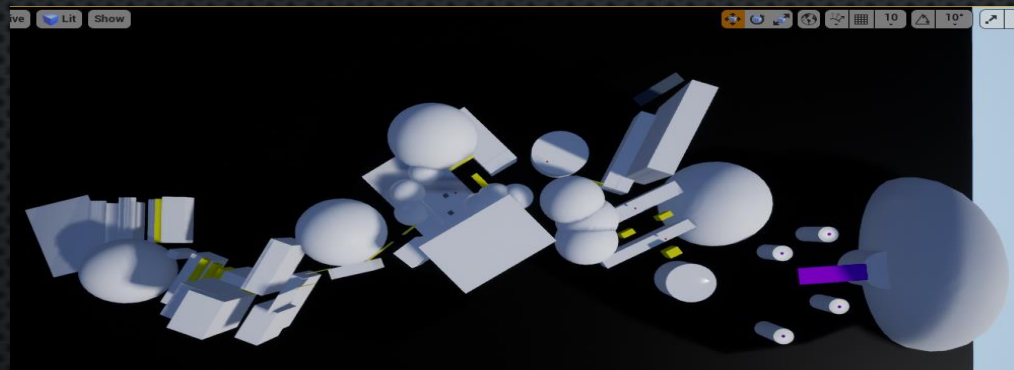
The parkour platforms were first numbered in terms of how many would be at a level and how repetitive would it be. Which led to the break down in terms of the player movement in the level, hence building a progressive platforming flow through the level.

- Progression

Throughout the level, the player will find an increase in parkouring platforms and increase in drones as well.

- Layout

Here is a top-down view, showing example of creating the layout structure from sketch to white boxing stage.



Prototyping Mechanics

Being the first time using UE4 I did not have any or no knowledge how to use blueprints.

That being said, I had taken the task to work on our wall climbing mechanics and other parkour. Which was an important mechanics for us.

Sadly enough I wasn't able to achieve the mechanic partially, but with a lot of bugs.

But later the team was able to iterate on it and re-work the code to fix it.