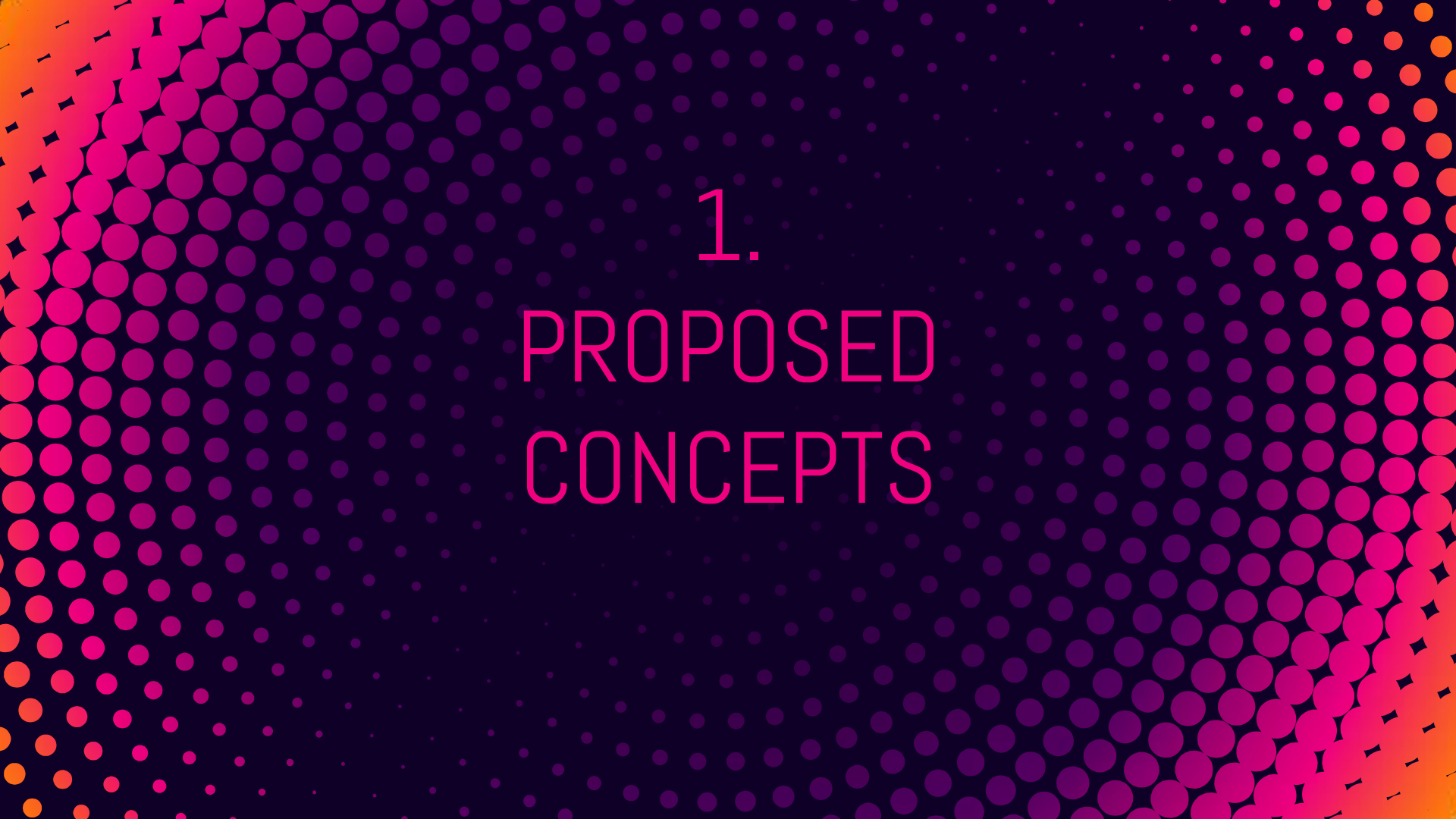




VMP



1. PROPOSED CONCEPTS

VR FALLING GAME

High Concept : It is an FPS game, the game is based the player fall from the high point and passing through the checkpoints to reach the ground.

Game Genre : FPS

Game Type : Fall simulation

Target Audience : Teens

USP : The game has several USP since it's a VR platform and unique environment

Core Gameplay : Interaction

VR SWORD GAME

High Concept : It is an FPS game, the game is based the player blocking oncoming objects using sword and slicing them.

Game Genre : FPS

Game Type : Action

Target Audience : Adult

USP :The game doesn't have USP

Core Gameplay : Interaction

- The following are the selected concepts for the game. Since due to few changes three new concepts are developed apart from the concepts finalized but the final game idea remains the same as an Sci Fi adventure game with few changes. The justification and reasons for choosing the game is included in the following slides.
- Reasons for changing the Concepts :
 - The old concepts are ignored due to most of the game ideas were based on the VR which was expensive to create and lack of programming experience using VR.
 - As 3D environment artist I wanted to focus more on the 3D modelling and environment design, VR concepts are omitted so that I don't take more time to learn new programming.
 - Since by avoiding those concepts three new concepts were developed which are mentioned in the following slides.



2. NEW CONCEPTS

CONCEPT 1 : ZERO G RACING

- ⊗ High Concept : It is an space racing game with action and adventure. The game is based on classic PvP racing game with different space shuttles each shuttles having its own abilities. The racing takes places in different planets, space and futuristic environments.
- ⊗ Game Genre : TPP
- ⊗ Game Type : Racing, Action, Adventure
- ⊗ Target Audience : Teens, 10+
- ⊗ USP : A new revolution in racing game by mixing it with space mechanics and Sci Fi.

CONCEPT 1 BRIEF :

- ⊗ Concept Brief : The game is based on PvP, TPP racing and has no story element in it. It is racing game which lets the players to select different space shuttles and planets to race. Each space shuttles has its own unique abilities and powers used during the racing.
- ⊗ The Core Mechanics : The game has unique flight control mechanics for the movement of the shuttle, each race track has its own gravity to which the player has to select and modify the right kind of space shuttle for it. Each space shuttle has an attack and defence weapons activated in between the race which can used by Q and E Keys on the keyboards.
- ⊗ Justification : Reasons for choosing this concept was because it's an new idea of racing experience which was ever designed with unique mechanics. Racing games lasts long because there is no story involved and also the main reason to choose this concept is because the Sci Fi genre is my area of expertise from my previous works and projects.

CONCEPT ART :



REFERENCE IMAGES :



CONCEPT 2 : MULTIVERSE SIM

- ⊗ High Concept : It is a simulation game in space where you travel to different planets and gather resources for your community and maintain the resources.
- ⊗ Game Genre : TPP
- ⊗ Game Type : Simulation, Adventure
- ⊗ Target Audience : Teens, 10+
- ⊗ USP : The game has no unique selling point there are lots of similar games in the market, this game differs from other games by its own design elements and mechanics.

CONCEPT 2 BRIEF :

- ⊗ The game is about world being polluted and becomes unfit for living and people has to find new home. Only few people were left to survive and they call themselves as a The Ionis Community, whom are in search for new home by travelling lightyears in space gathering resources and finding shelter in every planet, acquiring data weather it is suitable to live in that planet. There are group of trained professionals and scientific team assigned to find new hope for the people.
- ⊗ The Core Mechanics : The game has an algorithm that let players to find the need for resources and natural causes that occurs on their path of hope. The game has number of UI and HUD is filled with controls to simulate the game. The main control which controls the gameplay is using mouse click and drag.
- ⊗ Justification : I chose this concept because I wanted to create something different from usual FPP and TPP action games, so that I can improve my skill in different game genre. It also has the challenge to learn new level design when it comes to designing a simulation game.

CONCEPT ART :



REFERENCE IMAGES :



CONCEPT 3 : ANOX

- ⊗ High Concept : It is an FPP Sci Fi adventure game where you are the only hope left to save humanity. The game has different episodes each episode has separate objectives to complete.
- ⊗ Game Genre : FPP
- ⊗ Game Type : Action, Adventure
- ⊗ Target Audience : Teens, 16+
- ⊗ No of levels : The game is divided into 5 episodes including the DLC.

USP :

- ⊗ The base game is free and can be kept for lifetime, the free base game comes with one episode. If the player like the gameplay and wants to continue playing the DLC containing other episodes are bought.
- ⊗ The game tries to implement realistic space simulation and environments with space gravity physics to feel the player an effective gameplay experience.
- ⊗ The game contain easier mechanics and difficulty levels suitable for all kinds of people from kids to older people.
- ⊗ The player will feel more cinematic experience in the gameplay with less UI and controls.

CONCEPT 3 BRIEF :

- ⊗ Story : The game sets in the fictional world where there are three types of community The colonist from earth, Martians from mars and the Space pirates who live in a huge space station near Jupiter ring. There is always a war between these three community in conquering one another and fighting for resources.
- ⊗ The colonist are more advanced in the technology, once they found an element from an another universe after a long period of research they found that the element can provide a gateway pass to all the universe by causing a wormhole if triggered at particular space event which is going to occur in few years. Knowing about these facts the colonist found that it is their opportunity to interact with other universes and gain resources so that they can be more powerful, which can result in the end of war by them ruling all other community.

CONCEPT 3 BRIEF :

- ⊗ A group of trained crew are assigned to complete this mission, this will take years of travelling so the crew are put to hyper sleep and travelled towards the destination. But when the Martians got the intel about their secret mission they made a pact with space pirates and followed the crew to destroy them before they can activate the wormhole event.
- ⊗ The crew from colonists unfortunately face a malfunction in their ship so one of the team mechanic wakes up from the hyper sleep and fix the ship. While he fix the ship the Martians caught up to them and fired a nukes at the ship being advanced in the technology the colonist ship's self-defence automatically gets activated and destroys the Martians ship, but part of the colonist ship gets destroyed involving crew and it continuous to explode the mechanic is the only crew member who is left alive and has to complete his mission with the help of an AI who is the part of the ship.

REASONS FOR CHOOSING THIS CONCEPT :

- ⊗ I choose this concept because this game has more content to it when compared to other concepts and also I have experience in creating RPG or story based games from my previous projects.
- ⊗ The game also contains various mechanics involving different episode, each episodes have several objective where I can learn new elements in programming and can improve my skill.
- ⊗ Since I major in the Game Environment and Design, I wanted to focus more on the game environment like open world or a space ship with interior which is also a main reason to choose this concept.
- ⊗ I have my strongest skill in designing for a Sci Fi game genre.

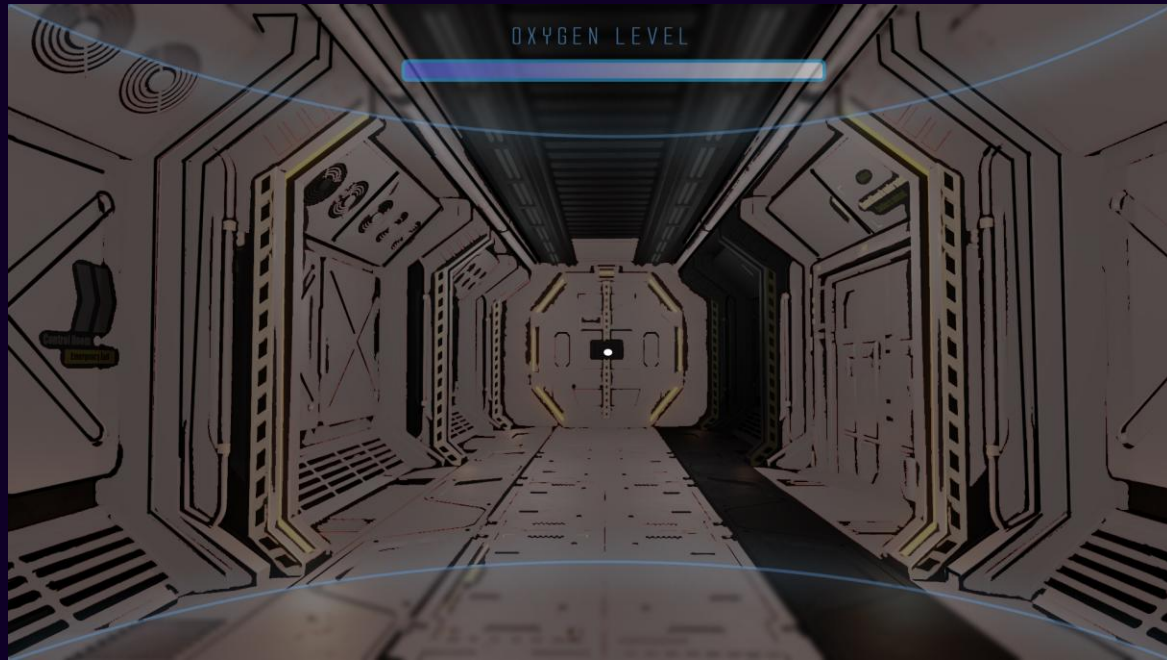
REASONS FOR IGNORING OTHER CONCEPTS :

- ⊗ Concept 1 was ignored because designing different space shuttle for the racing game will take more time and it will be left unfinished in the end and also the game had some issues with designing numerous number of maps with different art styles and environment.
- ⊗ Concept 2 was ignored because of the lack of programming ability to make a simulation algorithm, since I focus more on the part of designing environments, the simulation game was mostly based on the programming part with less designing part. It also involves lot of 2D design which is a skill I'm not experienced a lot.

CORE MECHANICS :

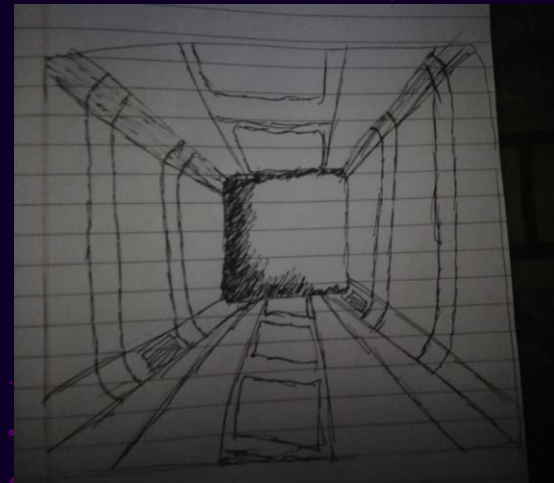
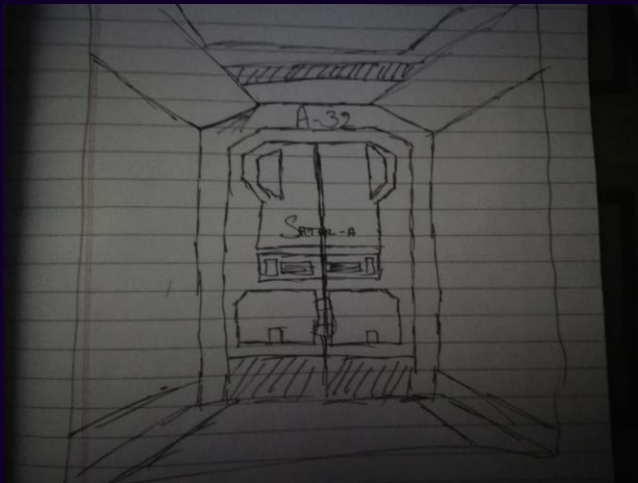
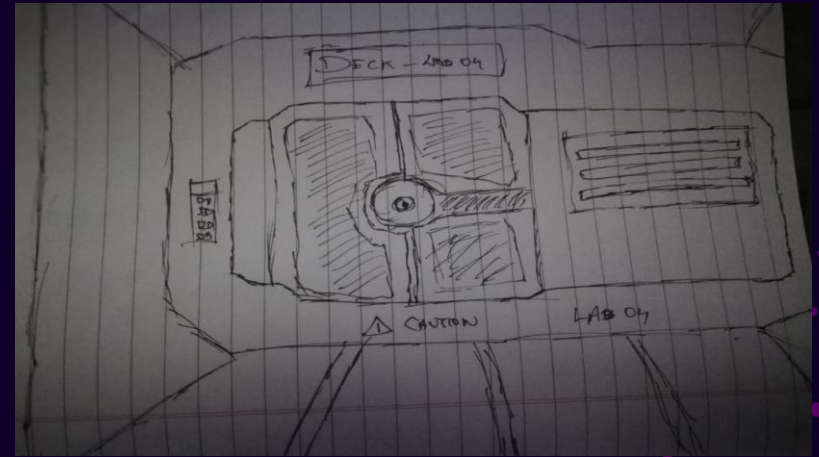
- ⊗ The game involves five episodes with different mechanics and objectives assigned to each episodes. Some of the core mechanics of the game are mentioned as follows:
- ⊗ Interaction
- ⊗ Flight Control
- ⊗ FPS
- ⊗ Crafting
- ⊗ Puzzle
- ⊗ Scanning objects

CONCEPT ART :

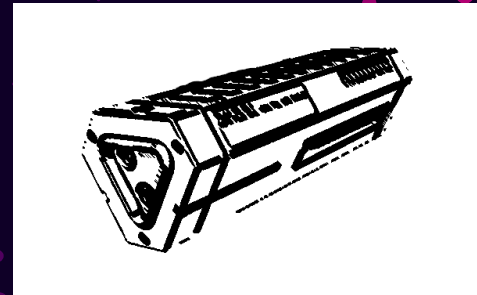
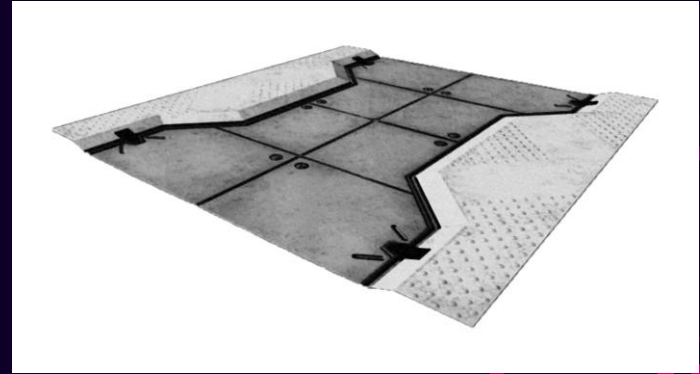


ROUGH SKETCH :

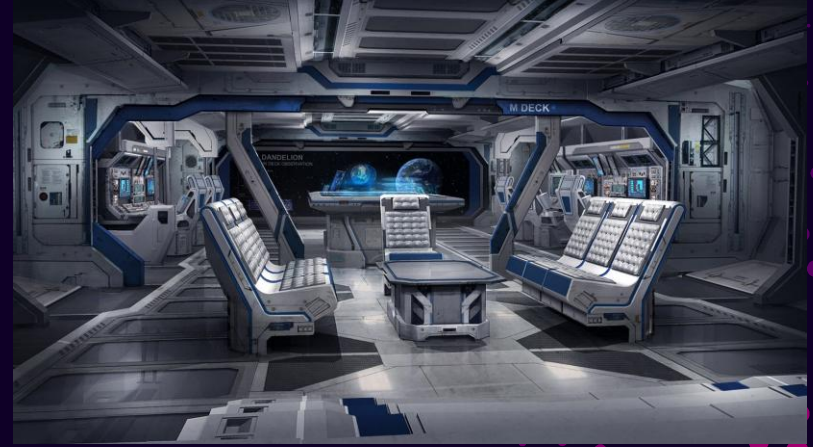
Rough Sketches of Sci fi Corridor.



CONCEPT ART :



REFERENCE IMAGES :



4.

REFERENCE GAMES

MASS EFFECT ANDROMEDA

- ⊗ High Concept : The game begins within the Milky Way Galaxy during the 22nd century, where humanity is planning to populate new home worlds in the Andromeda Galaxy as part of a strategy called the Andromeda Initiative. The player is an recruit who joins the Initiative and wakes up in Andromeda, tasked with finding a new home world for humanity.
- ⊗ Game Genre : TPP
- ⊗ Game Type : Action, Adventure, Role-Playing
- ⊗ Target Audience : 18+ Adults only.
- ⊗ Developers and Publishers : BioWare and Electronic Arts

GAMEPLAY AND MECHANICS :

- ⊗ The game is basically exploring different planets and finding a new home. It is a first person shooter game with various combat techniques.
- ⊗ The game allows you to choose your two partners to deploy with you during a mission from the six character of the crew. Each character has its own abilities, fire power and guns.
- ⊗ In order to travel in space the player gets access to his own spaceship and during on land in a planet a space Road vehicle called Normand is used to travel and explore the world. Fast travel options are allowed were the player can jump to that point of location.

GAMEPLAY AND MECHANICS :



- ⊗ During combat the character automatically gets into cover while near an object or wall when the player goes near it



- ⊗ Each character has unique abilities like flame thrower, shield etc.

HUD :

- ⊗ Navigation showing way to objectives and other side missions.
- ⊗ Temperature of the planet hinting weather it is hazardous or safe.



⊗ Ammo count

⊗ Current Objective.

⊗ Health status, weapon status and abilities to access.

REFERENCE FOR MECHANICS PLANNED TO USE IN MY GAME :



- ⊗ In the game the player has an device which allows you to X-ray scan objects near to find an clues or sometimes to even find a hidden objects.
- ⊗ The same mechanics I wanted to implement in my game as an objective to find hidden objects.

REFERENCE FOR MECHANICS PLANNED TO USE IN MY GAME :



- ⊗ There are few place where the entry is restricted and the player must override an console by solving a puzzle so that he can gain access to the entry.
- ⊗ The same mechanics I wanted to implement in my game as an puzzle solving technique to unlock door.

DEAD SPACE 3

- ⊗ High Concept : Dead Space 3 is an survival horror game which is sequel to Dead Space and Dead Space 2. Isaac Clarke teams up with EarthGov Sergeant John Carver as they travel to Tau Volantis, an ice-covered planet, to end the Marker and Necromorph threat for good.
- ⊗ Game Genre : TPP
- ⊗ Game Type : Survival Horror
- ⊗ Target Audience : 18+ Adults only.
- ⊗ Developers and Publishers : Visceral Games and Electronic Arts

GAMEPLAY AND MECHANICS :

- ⊗ The character is equipped with the Resource Integration Gear (RIG) suit, using holographic displays projected from the players' suit and weapons to display health and ammo count, respectively. In vacuum areas, a timer will appear on the player's right shoulder, indicating how much oxygen that character has left before they suffocate.
- ⊗ Player characters can roll and take cover to avoid attacks. Players are able to construct new weapons from parts gathered throughout the game.
- ⊗ The game also contains co-op modes to choose particular mission and play online with friends.

GAMEPLAY AND MECHANICS :



- ⊗ Looting items are displayed as you kill your enemy to pick up those loots if needed.

- ⊗ Third person shooter mechanics is used with the cross hair as the point of target.

HUD :



- ⊗ The game has spatial HUD with health displayed as part of the character suit.

- ⊗ The ammo count is displayed as the spatial HUD as a hologram.

REFERENCE FOR MECHANICS PLANNED TO USE IN MY GAME :



- ⊗ In the game the player can space jump with his suit to travel from one ship to another.
- ⊗ The same mechanics I planned to implement in my game.

REFERENCE FOR MECHANICS PLANNED TO USE IN MY GAME :



- ⊗ The game has minimal UI to give the player a better cinematics experience by using spatial HUD technique.
- ⊗ The same kind of HUD is planned to use in my game.



4.

REFERENCE FROM OTHER MEDIA

MOVIE : GRAVITY

- ⊗ High Concept : Gravity is a 2013 science fiction film. It stars Sandra Bullock and George Clooney as American astronauts who are stranded in space after the mid-orbit destruction of their space shuttle, and their subsequent attempt to return to Earth.
- ⊗ Movie Genre : Sci Fi, Thriller, Adventure
- ⊗ Directed by : Alfonso Cuarón
- ⊗ Target Audience : PG 13
- ⊗ Distributed by : Warner Bros. Pictures

ANIMATION TECHNIQUE :

- ⊗ The requirement of realism, paradoxically, compelled Cuarón and his team to pre-visualize the entire film, shot for shot, long in advance of bringing Sandra Bullock and co-star George Clooney onset. This was an animation technique.
- ⊗ Each shot was blocked, timed, and the actors "key-framed," creating an "animatic" of the entire script.

VISUAL EFFECTS AND LIGHTING TECHNIQUE :

- ⊗ In space, light comes from the sun and bounces off everything else, most prominently the dayside of Earth. In order to bring that effect they invent a thing called "Light Box," made of 196 panels, each containing 4096 LEDs. Actors and set pieces could be placed inside. Panels could move to accommodate cameras and props. Visual effects technicians piloting software could instantaneous change any individual LED.
- ⊗ Specific areas of the Earth, parts of the International Space Station, your co-stars' spacesuit helmet lights in proper perspective; any object making, reflecting or refracting light – or the absence of light – can be painted on the Light Box.

IDEAS PLANNED TO USE IN THE GAME :



- ⊗ The movie involves a space ship where most of the scenes are shot. The space ship design was referred to use in the game.

IDEAS PLANNED TO USE IN THE GAME :



- ⊗ The movie has few scenes outside the space used as an environment reference for the game

BOOK : EXPANSE

- ⊗ High Concept : The Expanse is an Sci Fi space novel. It involves series of eight books. The Expanse series was also premiered based on the book. The base plot is a war between Mars and Earth happening in hundreds of years in future during this some unknow thing theatres the humanity.
- ⊗ Book Genre : Sci Fi, Action
- ⊗ Author : James S. A. Corey
- ⊗ Target Audience : PG 13
- ⊗ Publisher : Orbit Books

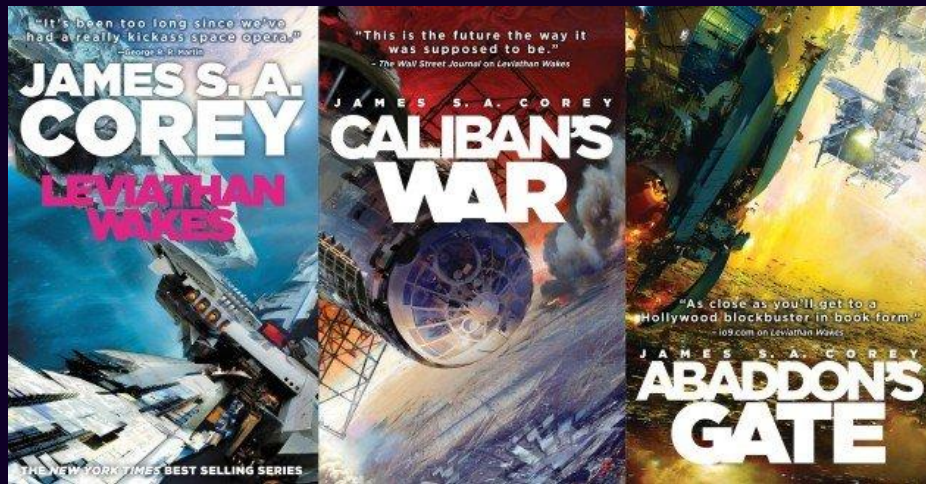
ADAPTATIONS :

- ⊗ TV Series : The American television channel Syfy announced a straight-to-series commitment to a television adaptation of The Expanse in April 2014, ordering the production of ten hour-long episodes for a first season and premiered in December 2015.
- ⊗ Game : The Expanse Roleplaying Game uses the AG system designed by Chris Pramas. The core rulebook and Gamemaster's Kit launched on Kickstarter in July 2018 and gathered over \$400k from their campaign. The book was written by game designer Steve Kenson and is being published by Pramas' company Green Ronin Publishing. The game will allow players to create their own character of the various galactic factions and adventure through the galaxy at the various settings or even on their own ships.

ADAPTATIONS :

- ⊗ Board Game : An Expanse board game, designed by Geoff Engelstein and published by WizKids, was released in October 2017. The authors of the book series collaborated with Engelstein on its development. The game focuses on politics, conquest and intrigue similar to the board game Twilight Struggle, although with a shorter playing time. Players represent Earth's UN forces, the military of Mars, the O.P.A., and Protogen Inc, each struggling to become the dominant power in the Solar System. They use cards and action points to move and place Fleets and expand their Influence in contested areas. The cards represent characters and events from the universe of The Expanse, each bearing key images from the show. Each character has special abilities that must be correctly exploited in order to gain the upper hand in the struggle for control.

IDEAS PLANNED TO USE IN THE GAME :



- ⊗ The book inspired to come up with the idea for the concept of the game. Since the series involves more than 6 books it's hard to specify the storyline in this document.



5. PROTOTYPE

PROTOTYPE BRIEF :

- ⊗ The prototype of the game is based on complete level design of episode one with core mechanics involved. The game starts with the character waking up from an explosion of the ship and he realizes that the ship is going to explode.
- ⊗ The whole crew is dead and he is the only member of the crew who is still live. The main objective is to escape the ship.
- ⊗ The prototype involves the core mechanics of the game with playable gameplay of first few minutes, containing level completely designed along with props and texture.



6. MECHANICS USED

MECHANICS INVOLVED IN THE PROTOTYPE :

- ⊗ Interaction
- ⊗ Gravity Change
- ⊗ FPP
- ⊗ Explosion

INTERACTION :

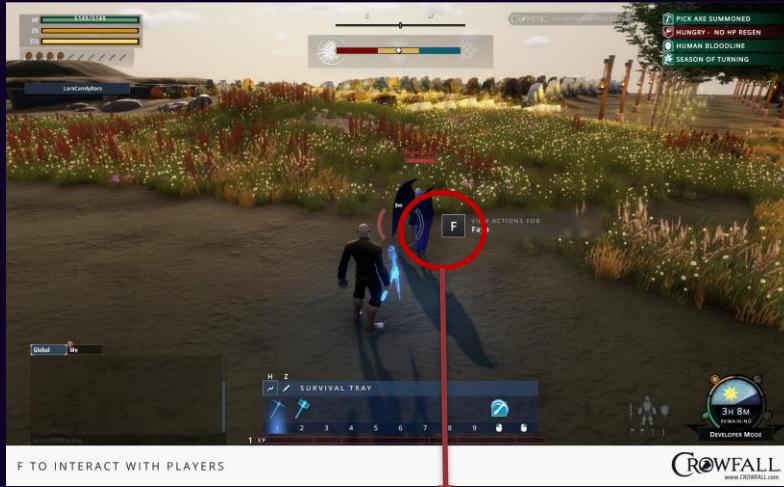


- ⊗ The player interacts with the main computer to check the status of the ship and mission using interaction key.

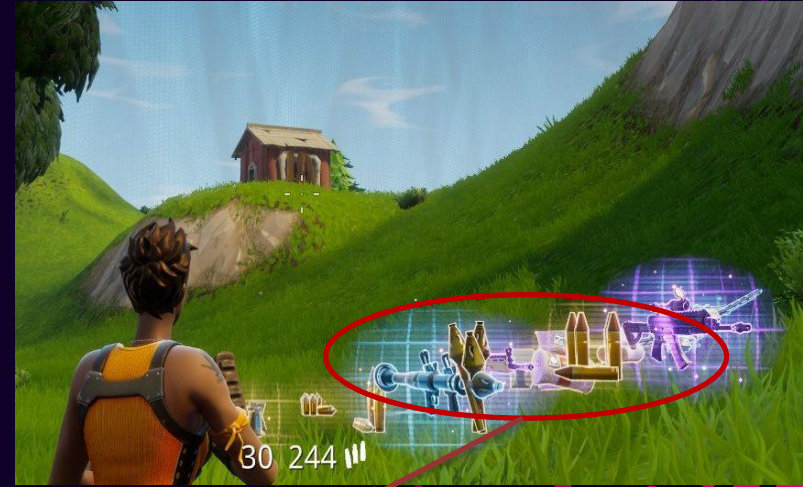


- ⊗ The player interacts with the console to bypass and unlock door by pressing interaction key.

REFERENCE GAMES WITH SIMILAR MECHANICS :



- ⊗ In crowfall game the player interacts with the objects, items or other characters by using a key to initiate the interaction. In this case the player interacts with the character using F key.



- ⊗ In Fortnite the player interacts automatically with the items when he goes near it. In this case the character automatically loots the ammo when the player goes near it.

REASONS FOR USING THIS MECHANICS :

- ⊗ Interaction is the one of the important mechanics used in a game. It is the link which provides the connection between the player and the character.
- ⊗ Interacting with object in the game world will make the game environment more alive and also can be used to complete an objective or investigate items by interacting with it.
- ⊗ Without the interaction the game world will be static and puts the player mood to bored in exploring the environment.

CODE SAMPLE :

```
if (MiddleVR.VRDeviceMgr != null)
{
    // Testing mouse button
    if (MiddleVR.VRDeviceMgr.IsMouseButtonPressed(0))
    {
        MiddleVRTools.Log("Mouse Button pressed!");
        MiddleVRTools.Log("VRMouseX : " + MiddleVR.VRDeviceMgr.GetMouseAxisValue(0));
    }

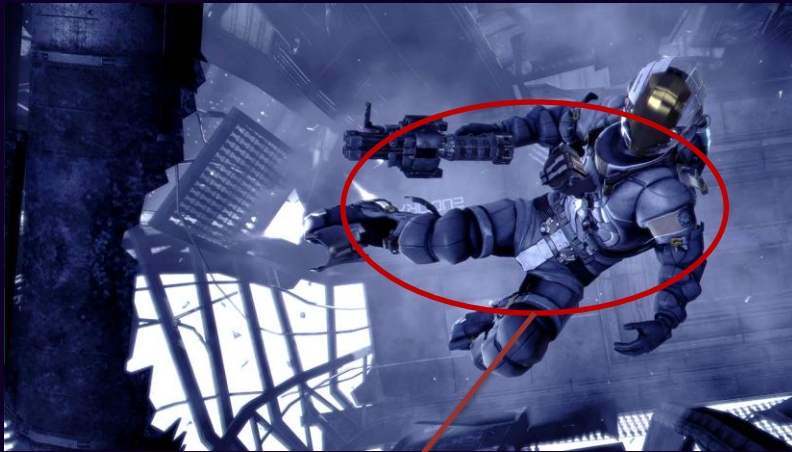
    // Testing keyboard key
    if (MiddleVR.VRDeviceMgr.IsKeyPressed(MiddleVR.VRK_SPACE))
    {
        MiddleVRTools.Log("Space!");
    }
}
```

GRAVITY CHANGE :



- ⊗ Due to the explosion that occurs in spaceship, a malfunction occurs in the gravity stabilization system. Hence the gravity constantly switch between normal gravity and zero gravity. You can see the object floating due to zero gravity.

REFERENCE GAMES WITH SIMILAR MECHANICS :



- ⊗ In Dead Space the player moves in zero gravity using his Exo suit. From the reference you can see the player and other environment object affected by zero gravity in space.



- ⊗ In Control game the player has the ability to control the gravity and make them float. From the reference you can see the characters floating in space after the ability was used by the player.

REASONS FOR USING THIS MECHANICS :

- ⊗ Simulating the real time gravity in the game world will make it more realistic and alive. The gravity will also affects the objects in the game world.
- ⊗ Without this physics the objects in the game will be floating in space and make it unrealistic.
- ⊗ Since the event occurs in the space, I have to show space gravity simulation so that the player will feel the space environment, even though he is in a space ship. Otherwise it will be a normal environment not giving the feel of that the player is in space.

CODE SAMPLE :

```
6
7     public float minGroundNormalY = .65f;
8     public float gravityModifier = 1f;
9
10    protected Vector2 targetVelocity;
11    protected bool grounded;
12    protected Vector2 groundNormal;
13    protected Rigidbody2D rb2d;
14    protected Vector2 velocity;
15    protected ContactFilter2D contactFilter;
16    protected RaycastHit2D[] hitBuffer = new RaycastHit2D[16];
17    protected List<RaycastHit2D> hitBufferList = new List<RaycastHit2D> (16);
18
```

FPP :



- ⊗ The game is based on First Person Perspective to give the experience of realistic effect. The player see through the character's Point of View.

REFERENCE GAMES WITH SIMILAR MECHANICS :



- ⊗ Soma is a First person Thriller game where there are no UI, so that the player can experience a realistic cinematic gameplay.



- ⊗ Tacoma is an Sci Fi adventure game which uses the same First Person Perspective to give the feel of realistic gameplay.

REASONS FOR USING THIS MECHANICS :

- ⊗ FPP give the point of View of what the character sees through his eyes. This gives the more effective gameplay and can be used to surprise players from behind.
- ⊗ Since I am an environment artist modelling a character for TPP is the process I can avoid and focus more time on the environment of the game.
- ⊗ FPP plays a major role in an story based games and role playing games to make it more realistic and have an effective gameplay.

CODE SAMPLE :

```
1. using UnityEngine;
2. using System.Collections;
3. using System.Collections.Generic;
4. [AddComponentMenu("Camera-Control/Smooth Mouse Look")]
5. public class SmoothMouseLook : MonoBehaviour {
6.
7.     public enum RotationAxes { MouseXAndY = 0, MouseX = 1, MouseY = 2 }
8.     public RotationAxes axes = RotationAxes.MouseXAndY;
9.     public float sensitivityX = 15F;
10.    public float sensitivityY = 15F;
11.    public float minimumX = -360F;
12.    public float maximumX = 360F;
13.    public float minimumY = -60F;
14.    public float maximumY = 60F;
15.    float rotationX = 0F;
16.    float rotationY = 0F;
17.    private List<float> rotArrayX = new List<float>();
18.    float rotAverageX = 0F;
19.    private List<float> rotArrayY = new List<float>();
20.    float rotAverageY = 0F;
21.    public float frameCounter = 20;
22.    Quaternion originalRotation;
23.    void Update ()
24.    {
25.        if (axes == RotationAxes.MouseXAndY)
26.        {
27.            //Resets the average rotation
28.            rotAverageY = 0f;
```

EXPLOSION :

- ⊗ Since ship was attacked by the Martians, the undergoes heavy damage and the explosion occurs constantly spreading all over the ship until its completely destroyed.
- ⊗ The explosion occurs at the other end of ship, so the effect of the explosion is shown by camera shake mechanism during the gameplay.

REFERENCE GAMES WITH SIMILAR MECHANICS :



- ⊗ In games camera shake is used as an effect when explosion occurs. From the reference image of the game Biseige uses the same type of effect to show realistic effect.



- ⊗ Camera shake is also used as an effect to indicate the player that some dangerous thing happened in the world even when player is far away from the event of danger its effect is shown by camera shake to get attention of the player as shown in reference image.

REASONS FOR USING THIS MECHANICS :

- ⊗ Adding effects to the game will provide the link to the real world experience. Without the VFX and other effects the game environment will look dead.
- ⊗ Adding an after effect for an explosion like camera shake whenever the explosion occurs, will make the event of explosion more effective and its impact to the game world.
- ⊗ Camera shake is used to indicate the player that he is in danger and needs to escape or avoid the danger in order to survive it.



6.

ENVIRONMENT AND LEVEL DESIGN

ENVIRONMENT BRIEF :

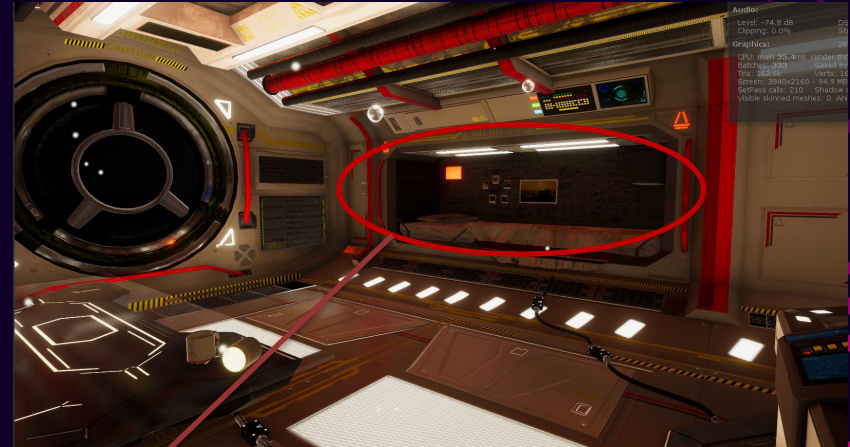
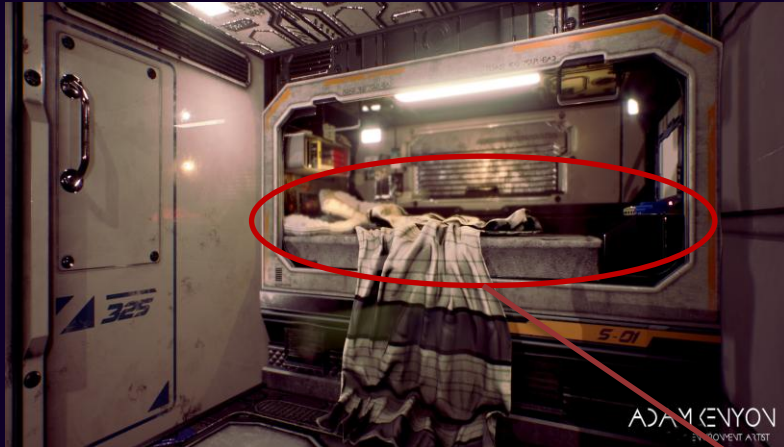
- ⊗ The base game environment is the space filled with darkness and space elements. The level design is interior of a space ship crew cabin.
- ⊗ The crew cabin involves sleeping space, radio access, props, main frame computer, interacting consoles and door access to the exit.
- ⊗ The level is built according to the Sci Fi and futuristic elements with reference collected from various sci fi games and art styles.

REFERENCE IMAGES :



- ⊗ The reference of cabin window of the space ship used in the game.

REFERENCE IMAGES :



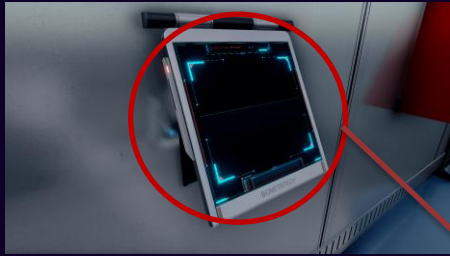
- ⊗ The reference of bed room area of the space ship used in the game.

REFERENCE IMAGES :



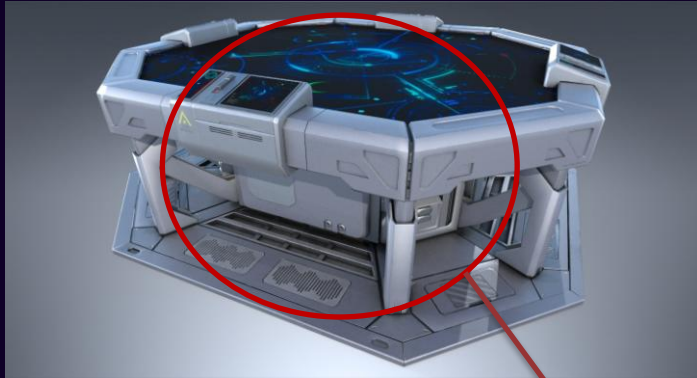
⊗ The reference of radio console used in the game

REFERENCE IMAGES :



⊗ The reference of props used in the game.

REFERENCE IMAGES :



⊗ The reference of props used in the game .

REASONS FOR CHOOSING THESE REFERENCES :

- ⊗ The Game is based on the genre of Sci Fi adventure which occurs in an advanced futuristic period and hence the research for concept arts is done under that category for using it in the game environment.
- ⊗ These reference concept arts are fictional and does not exist in the real world which is suitable for the concept of the game environment. This is suitable because game itself sets in a fictional world.
- ⊗ After referring lots of games and movies based on this genre and had a successful results proves to use the environments from those games and movies as reference to give the Sci Fi experience for the player.



7.

TEXTURING, METATERIALS AND COLOURS

MATERIAL USED FOR BUILDING AIRCRAFTS :

- ⊗ The materials used in manufacturing of aircraft have changed significantly from the construction of the first aircraft. With its objective of flying using air support while, resisting gravitational forces, the materials used for construction of aircraft must have a small weight, high specific strength, heat resistant, fatigue load resistant, crack resistant and corrosion resistant.
- ⊗ Back in the days, aircrafts were constructed using wood and fabrics. But aircrafts that are made up of wood and fabric were subject to rapid deterioration and high maintenance. Thus, the search for better materials began. Now, aluminum, steel, titanium and composite materials are preferred in the construction of aerospace structures.

METERIAL USED FOR TEXTURING IN GAME :



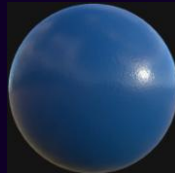
- ⊗ The game interior was textured using the aluminium material as the base element.



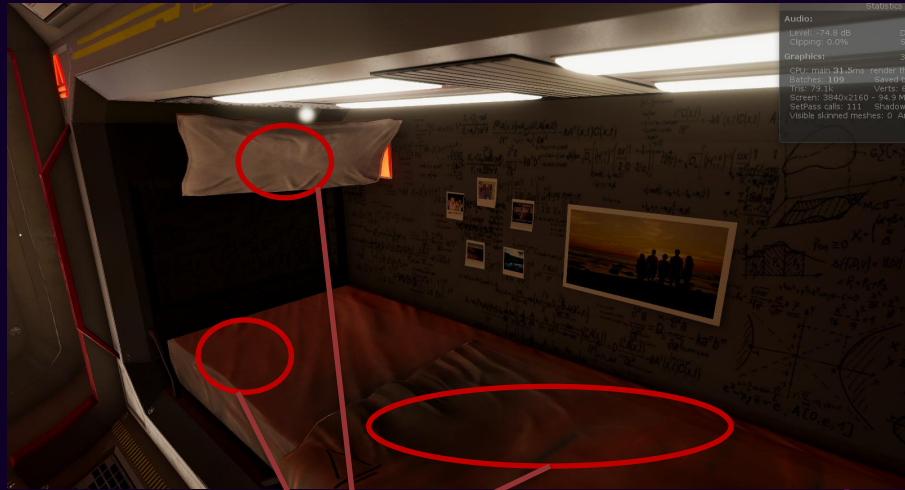
METERIAL USED FOR TEXTURING IN GAME :



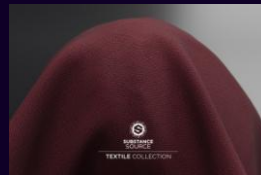
- ⊗ Few props, pipes in the game and the handles are textured using plastic material.



METERIAL USED FOR TEXTURING IN GAME :



- ⊗ The bed sheets and pillows are textured using fabric material in the game.



COLORS USED IN THE GAME :



- ⊗ This color palette is used in the interior corridors of the game.



COLORS USED IN THE GAME :



- ⊗ The red color is used to highlight the elements in the game like handles, symbols, danger and blue color is used for effects and water..



REASONS FOR CHOOSING THESE COLORS :

- ⊗ The grey color representing the basic metal color of aluminium according to the real world references as mentioned in above slide explaining building aircrafts.
- ⊗ The combination of red and grey color is used to show that contrast that can grab the attention of the player as unique object among the other elements in the environment.
- ⊗ The yellow color is used to show the warning indicator for the player.
- ⊗ The blue color is used for water, as an natural color element in the game.



8.

EFFECTS AND PARTICLE SYSTEM

HOLOGRAM AND FORCE FIELD EFFECT:



- ⊗ The hologram effect of an AI to interact for information during the gameplay.

- ⊗ The force field effect to show the hovering magnetic field of plants suspended in space.



- ⊗ The environment also contains dust particles effects.
- ⊗ The Bubbles effects show the water floating due to zero gravity.



9.

THINGS LEARNT AND PROBLEMS FACED

PROBLEMS FACED AND HOW IT WAS RECTIFIED :

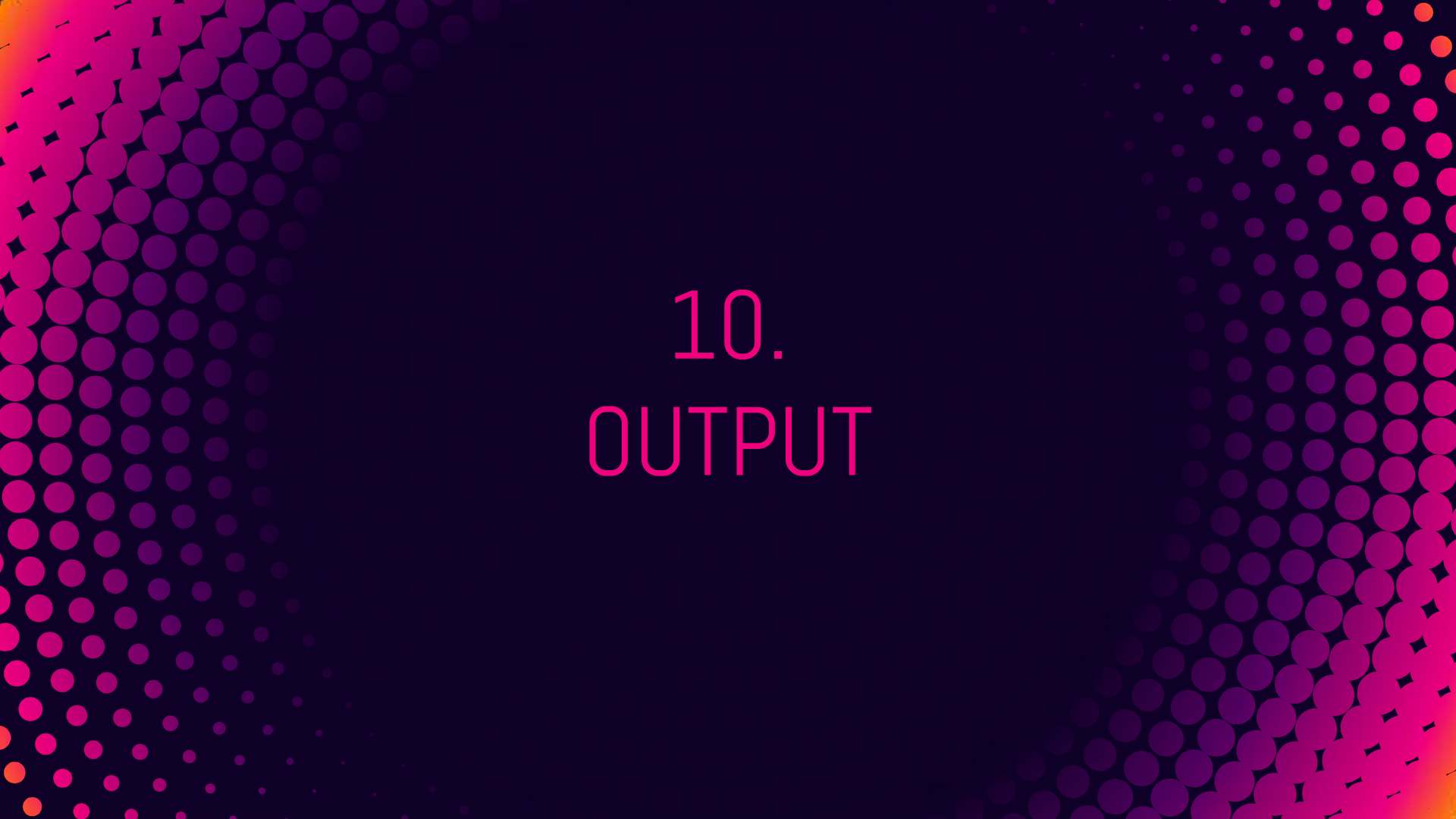
- ⊗ The most of the problems faced during the development of the prototype was during the process of programming mechanics.
- ⊗ This problem was solved with the help of experienced programmer who fixed the error and bugs.
- ⊗ The FPS of the game was very low during the gameplay.
- ⊗ This problem was fixed by using GPU instance for static objects, which resulted in increase in FPS.

THINGS LEARNT :

- ⊗ I learnt about the new HDR Pipeline feature in unity.
- ⊗ I also learnt some texturing methods involving photoshop combined with substance painter.
- ⊗ I learnt about few physics element that can be used in unity.
- ⊗ I learnt about the procedural skybox in unity.

THINGS TO IMPROVE :

- ⊗ I need to improve the color combination used in texturing.
- ⊗ Needs to improve in the lighting.
- ⊗ I need to learn more about how to model an mesh involving scattering into pieces when exploded.



10. OUTPUT









