

Gravaxy

Version 0.2

Ajla Elmasdotter
Ismail Jattioui
Miguel Feliu
Alex Lindström

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GDD Summary

Feature	Description
Levels (including tutorial)	2
Setting	International Space Station
Characters	1
Asset theme	Low-poly
Core Mechanics (Physics)	3
Game duration	30 minutes (5 hours in total)
Pricing	12 €

Section I - Game Overview

Game Concept

The game is a 3D platformer puzzle game, set on the International Space Station. The station has broken down due to unknown external forces and someone needs to go on the outside of the ship to fix the broken down parts. The player is the astronaut on the station that is missioned with doing the spacewalk designated to repair the ISS. Using a space suit with magnetic boots that enables one sticking to the surface of the station, the player sets out to different parts of the space station, where the player is required to solve puzzles to repair the broken parts.

Genre

The genre of the game is a simple feel-good adventure puzzle game.

Target Audience

By reading user comments, reviews, etc, on platforms such as Steam¹, for 3D platformer puzzle games, such as Etherborn², it has been made clear that many people of varying ages play this type of game. The game's target audience is hence specified to be: *People of all ages, who want to enjoy a puzzle game during one afternoon.*

Axes of analysis

An analysis of the target group has been made according to seven different axes³, which are all presented in the table below.

Axis	Analysis
Pro-gamers VS Non-pro	As the aim is to have a product that can be played by anyone, the aim is that of non-pro players primarily.
Players who join clans VS Those who do not	As the game is a single player, there is no ambition to appeal clan-players.
Console VS PC	Although it is possible to make the game for multiple platforms, the cost of doing so and the associated marketing

¹ <https://store.steampowered.com/>

² <https://store.steampowered.com/app/812160/Etherborn/>

³ <https://www.breakingthewheel.com/video-game-market-segmentation/>

	would make the Console market inefficient. Hence PC-players are the preferred market.
Budget gamers VS Players with disposable income	As the game is a puzzle platform game, the common practice is to aim for the budget gamers rather than players with higher disposable income.
College gamers VS High school VS Young professionals	This axis does not impact the audience nor the game, as all three groups fall under the desired target group.
Multiplayer VS Single-player	No multiplayer mechanic has been planned, hence the game is primarily aimed at the single-player focused player base.
RPG lovers VS FPS addicts VS Sports junkies	As none of these particular categories apply for the game, this axis is not of relevance.

Segmentation analysis

The target audience has been analyzed from three different points⁴ of view to gain a clearer understanding of what the game should deliver, presented in the table below.

Segmentation	Analysis
Behavioural	
Benefit Sought	As a platform puzzle game, the aim is to stimulate reflection, improving reasoning ability, developing the concentration, and increasing creative abilities.
Usage Rate	The aim is players who could give 2 - 3 hours of their time occasionally, as well as those who would like to play for 15 minutes only.
User Status	Anyone, from a young individual to an active professional.

Psychographic	
Lifestyle	There is no particular restriction
Personality	Curious, artistic, creative, are some of the primary characteristics aimed for when playing puzzle platform games.
Demographic	
Gender	No gender restrictions.
Age	Roughly 8 years old and above, as that is assumed to be an appropriate age to solve more complex puzzles.
Family Status	No restriction.

Game Flow Summary

When the player starts the game, they are introduced to a title screen that allows the player to choose to: *Play game*, *Settings and Credits*. When opting for Play game the player is directed to a level selection screen where they can choose which one to play and read each description to understand the objectives of each one.

Once the level starts the player can read a more detailed description of the objectives in the ingame menu selection. Throughout the game the user solves puzzles to proceed to the later levels. When a level is completed, the player gets a description of the next level and then a choice whether to continue to the next puzzle or to return to the main menu. This continues and the player advances through the story, aiding the space station where it is needed until the game has ended and the player has solved all of the puzzles.

Look and Feel

As the game's concept is space, it is desired for the player to be surrounded by a background and assets that clearly shows that the game takes place in space. As the game aims to be a feel-good puzzle game, the assets used reflect that through a low-poly theme that are simple but recognizable, while in contrast using realistic materials and backgrounds.

Project Scope

In this section the scope of the project is presented. Due to the target audience, the game is in its total supposed to last around 5 hours as an end goal. However currently the game is

supposed to last around 10 - 30 minutes, including a tutorial as well as a first level, both which are described further down in the document.

Number of levels

As the first iteration of the game is planned to be around a maximum of 30 minutes, the number of levels will be limited to 2. The game will include a tutorial level to give the player a feel for the game and learn the controls. The game will also include a first level which will be longer and more challenging than the tutorial level. By challenging we mean that it will include more puzzle elements to engage the player into the concept of the game. Although we are only doing 2 levels.

Number of locations

The game itself is located on the ISS, making the number of locations imply the number of locations on the ISS. Each level is planned to be a different location of the ISS. As there is 1 level and 1 tutorial planned, this implies 2 different locations on the ISS.

Section II - Gameplay and Mechanics

Gameplay

Game Progression

To progress in the game, the player has to complete levels. The first level is a tutorial of sorts, forcing the player to utilize and get familiar with the mechanics in the game. For each level won, the player is presented with a new level, until they reach the end. Each new level also introduces a new puzzle to solve, that is harder than the last one. All platforms and similar will be accessible to the player throughout the level, while the clues and pieces required to solve the puzzle are spread out as well.

Puzzle Structure

The puzzles will be solvable by utilizing the game mechanics, and exploration of the level. For each level, the difficulty of the puzzle and map complexity is increased allowing for harder and more engaging puzzles.

Objectives

The overall objective of the game is to repair the space station. Each individual level will be a separate part of the space station that needs to be repaired, allowing for individual objectives per level. When the player has completed the game the space station in a whole is repaired and working.

Play Flow

The player will quickly be presented with an objective specific for that particular level. To reach the objective, the player will have to explore the map as well as interact with different objects. The more exploring the player does, the more information they should be able to gather and the clearer the path towards the objective should become. Exploring the map should essentially allow the player to get a clearer view of the pieces needed to solve the puzzle and clear the level.

Mechanics

This section aims to explain the different mechanics which the gameplay is depending upon.

Gravity

As the main mechanic of the game, the gravity enables the player to walk freely on platforms, and over the edges. The player is allowed to walk over an edge without falling, as they instead end up on the side of the platform. This mechanic is supported due to the magnetic boots that are a part of the space suit the astronaut wears during the repairs.

Movement

The movement consists of the player being able to move in four directions: forward, backward, left and right, ('W', 'A', 'S', and 'D'). No jumping or running will be included in the game to make sure that the gravity remain the focus of the game. Movement speed while walking backwards is set slightly lower than moving in the forward direction.

Objects

Picking up objects

This mechanic is basic in puzzle games. In most levels the player is going to need to move or interact with objects to advance in the puzzle. The interaction is simple, the player presses a button (by default the letter 'E') in front of an object and picks it up, then he can move with the object and throw it where he wants (pressing 'E' again).

Moving objects

There are two types of pickable objects, magnetic - which stick to the surface of the platform as they are released by the player - and regular objects which, if you throw them, they will stay floating due to the zero-gravity environment in space.

Rotating objects

These are objects which rotate around their own axis. When the player collides with these objects they rotate along with them with the use of their gravity boots. These objects are used in puzzles throughout the levels as objectives or challenges.

Actions

Switches and Buttons

'W', 'A', 'S', and 'D' is used for movement.

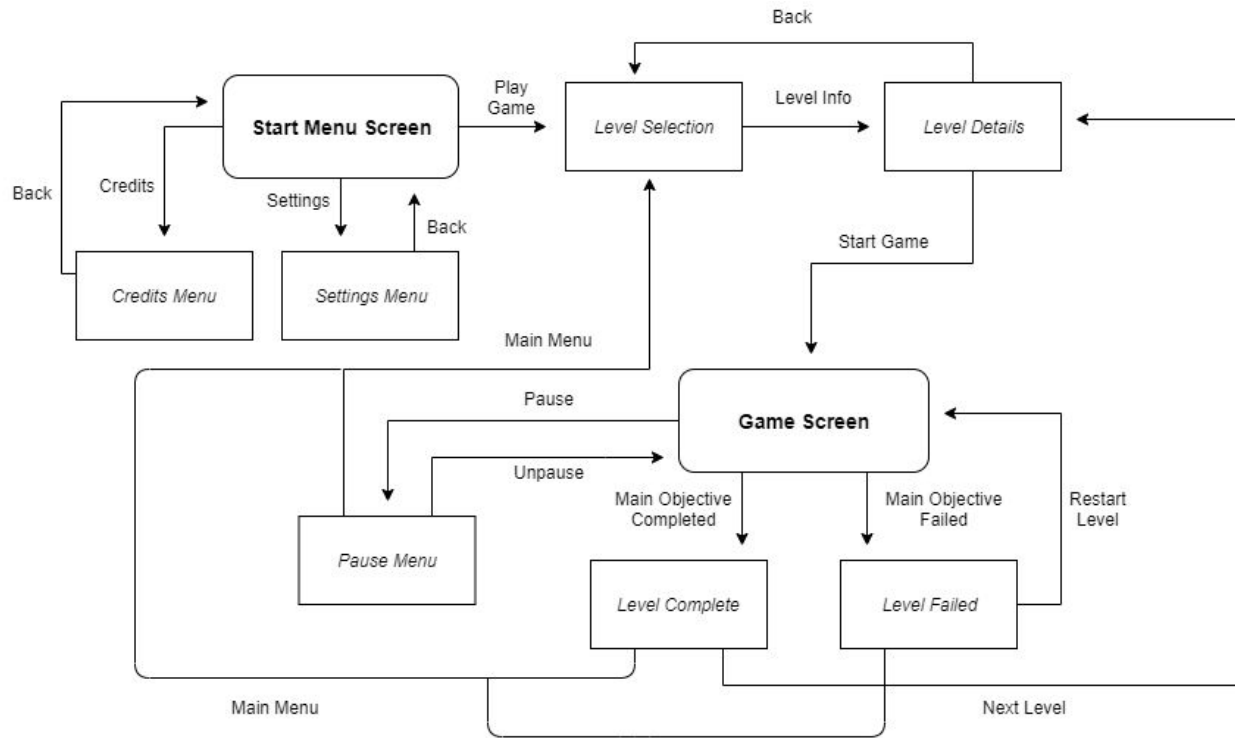
Picking Up, Carrying and Dropping

'E' to interact with objects, if you are close enough to a pickable object the player will pick it up. If you press the key again the player will throw the object.

Screen flow

Screen Flow Chart

The figure below describes how the screen flow.

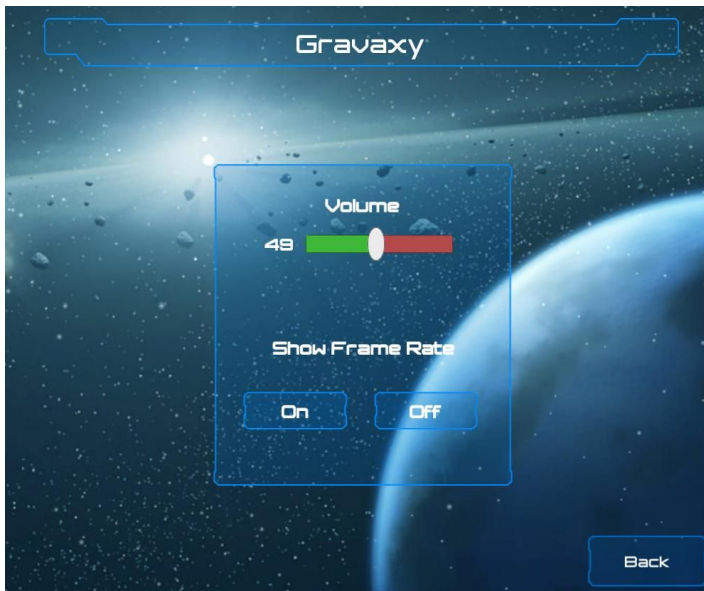


Menu

As soon as the game starts the start menu shows and the music starts playing. The starting menu scene consists of three different buttons.

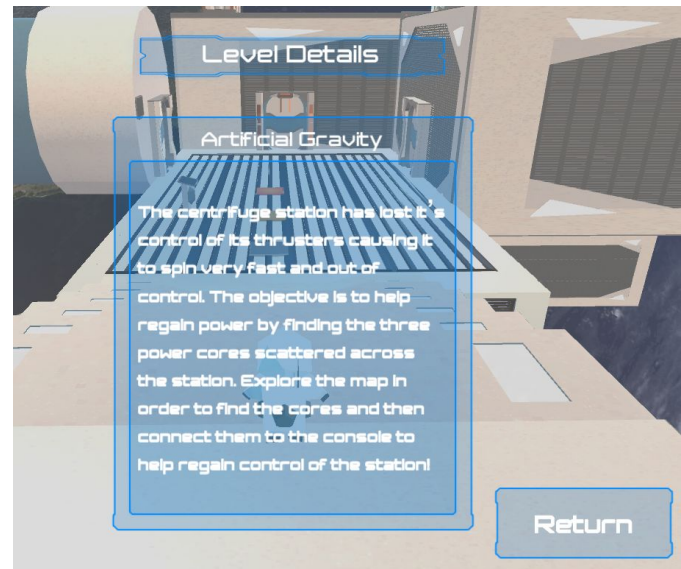
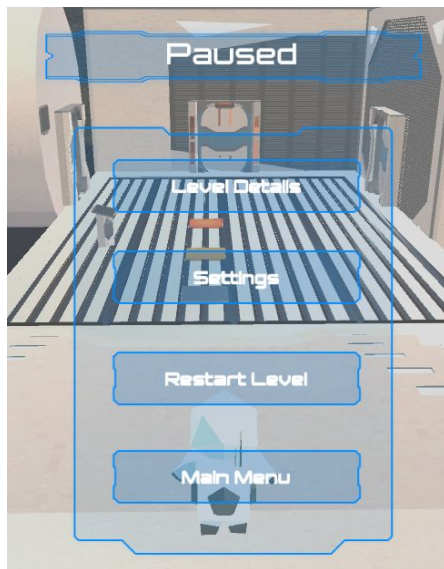
- Play Game, this takes the player to the level selection screen. Before the game actually starts the player gets to choose between the available levels. This offers the possibility to replay levels but most importantly gives a short description of the level and also shows the current player status, meaning if the player has completed the level before or not. The level selection details also include the name of the level as well as a picture referencing the main objective of the level.
- Settings, this option allows one to change the game settings. The settings window looks the same in the starting menu as it does while playing. The menu allows the player to control the music volume as well as an option to choose to display the frame rate of the game while playing. This can be used for developers and testers to evaluate performance in a more quantitative way.

- Credits, in the credits section we store information about the game and project. Members of the team are credited as well as external artists and contributors.



The ingame menu is accessible to the player by pressing the escape button. Once this is activated the game itself is paused and to further make that clear to the player, the screen behind the menus are tinted with a light gray image. The ingame menu includes 4 different choices.

- Restart Level, the player can use this option to restart the level and start from the beginning.
- Main Menu, this can be used to get back to the main menu if for example the player chooses to play a different level.
- Settings, it is also possible to change the settings from ingame. These settings are the same as the ones available to the player from the main menu, namely changing the music volume and enable/disable show the games frame rate.
- Level Details, the player can also choose to read the level details from the ingame menu. These are more detailed than that of the level selection description and gives the player a hint of what is required in order to complete the level.



Saving

Since the levels are small and do not rely on particularly complicated series of mechanics, saving only happens between levels. Nonetheless it is possible to reset a level from the start if the player wishes to redo the level without saving or going back to main menu.

Section III – Story, Setting and Character

Story and Narrative

Back story

One day, due to strong solar activity, the ISS gets hit by solar flares and extraterrestrial forces. This to different degrees damages the space station, alerting the astronauts onboard. For the space station to not shut down, to not risk the lives of the astronauts on board, someone needs to be sent out on a spacewalk to repair the parts of the ISS that has been damaged. That someone is the player.

License Considerations

As there does not seem to be any similar games on the market, licenses should not be a greater issue. Some assets that are currently used are however from the Unity Asset Store, with free to use license as placeholder for the original art if that is to be implemented at a later date.

Game World

General look and feel of world

As the game is set in space, the desired look and feel of the game is supposed to be relatively relaxed and fun. The game's genre aims to provide a feel-good environment together with challenging puzzles and hence makes it important to have a simple, yet entertaining feel and look to the game.

General Description

Each level takes place on a different part of the International Space Station, having its own unique platform and place to explore. The background is a starry sky with a planet in the background.

Physical Characteristics

As the game takes place in space the objects in general are floating and do not respond to gravity. The exceptions are the astronaut and particular objects, called magnetic objects.



Character

The only character that will be seen in the game is the player (astronaut) themselves, whose appearance can be seen in the figure to the right. More about the asset in later sections.

Section IV – Levels

Tutorial Level

Objectives

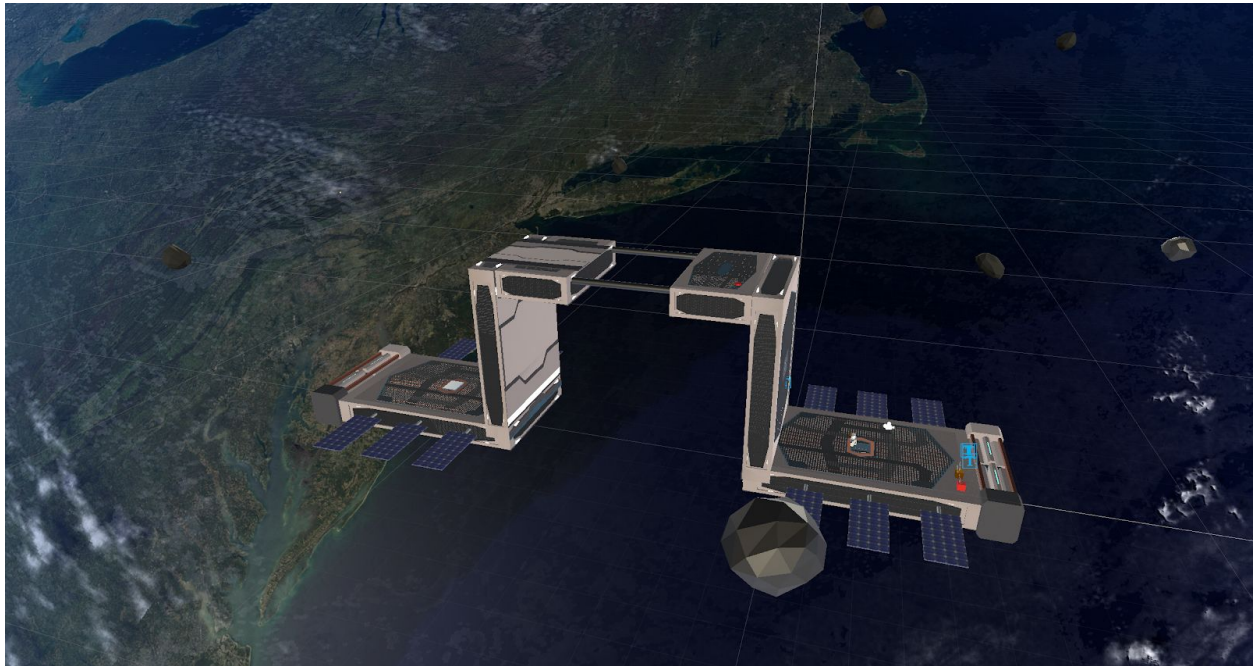
This level introduces all mechanics for the player and hence in an intuitive way forces the player to utilize the different mechanics. As it is a tutorial level introducing the mechanics the player should be forced to:

1. Walk over the edges of a platform
2. Pick up and put down magnetic objects
3. Pick up and release non-magnetic objects
4. Push a button to extend a part of the platform to reach otherwise unreachable parts of the map.

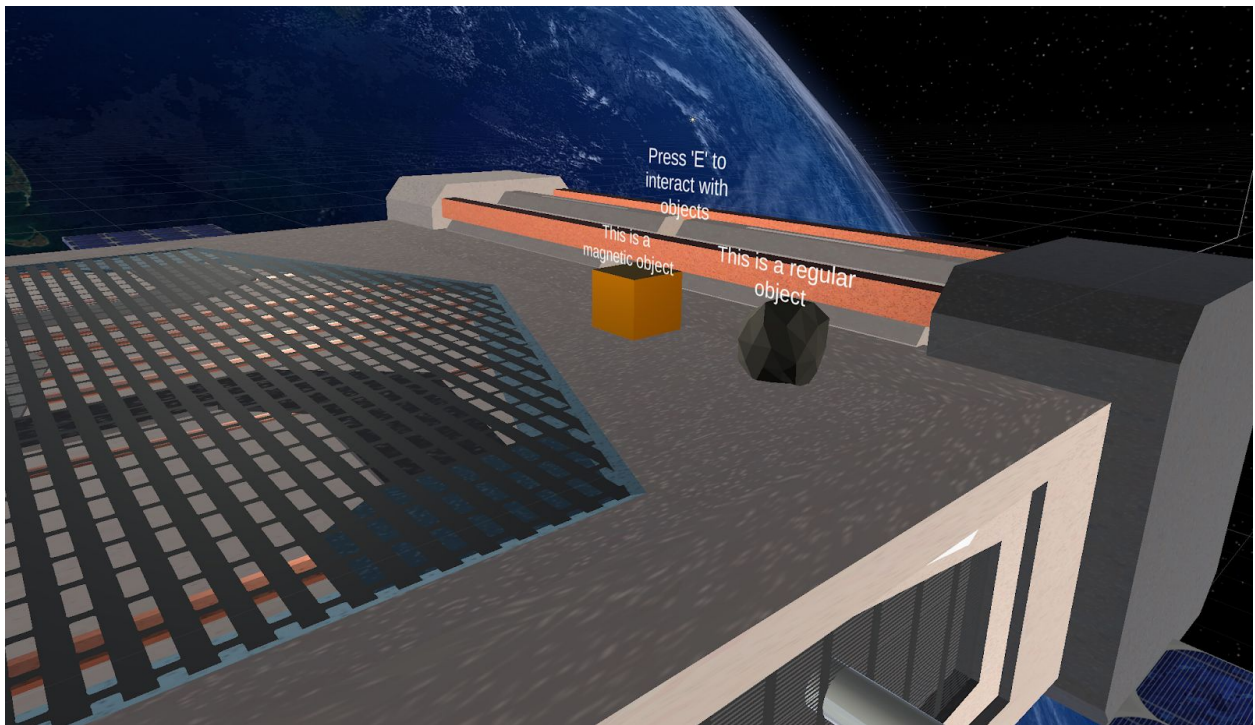
The player finds himself in a little Space Station, we can see a privileged Earth view and some space debris in the surroundings. The objective is to make the player learn how to use the basic mechanics, as it is a tutorial level.

The goal of the map is located in the opposite part of the player spawn point. There are two objects in the spawn platform, a magnetic and a non-magnetic one, and the player can only pick up one at the same time. The player has to move either one of these objects to the opposite part of the station, where the goal is located. In order to access this part, the player will need to push the red button located in the high part in the middle of the station to move the platform and make the zone accessible. Once this is done the player walks with the object to the goal and the level is complete.

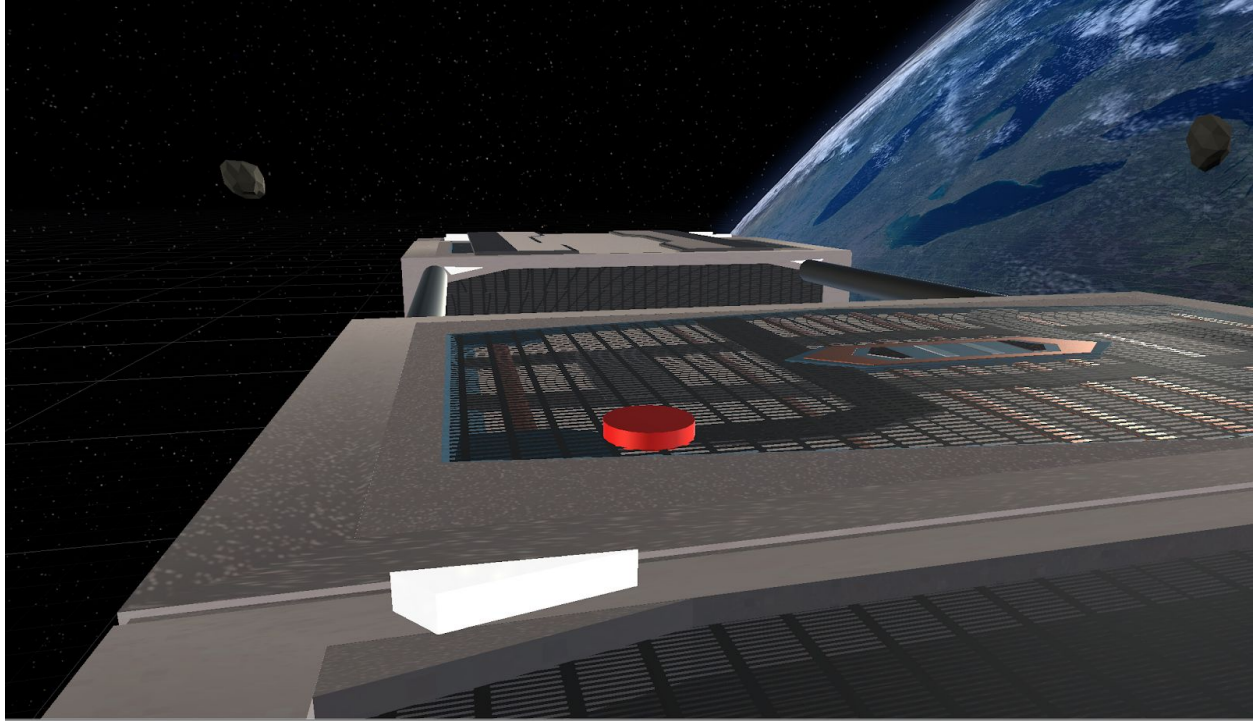
Map / Platform



General view of the map



Pickable objects



Movable platform and button

Level #1

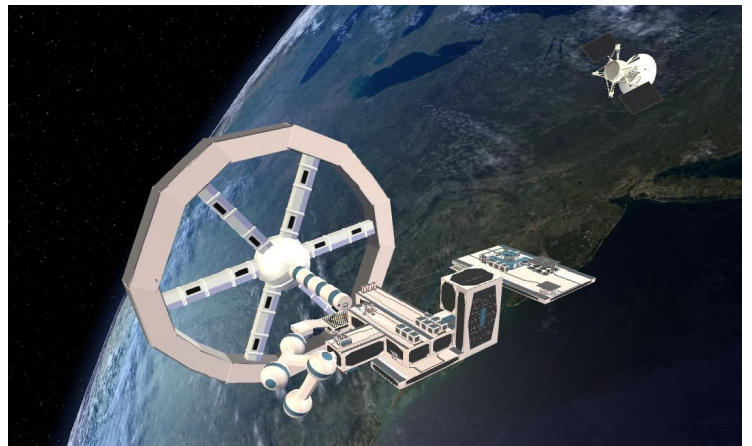
Synopsis

Introduces the player to a first simpler puzzle. The players will need to explore the station to find pieces that solves the puzzle and helps the player reach the objective of the level.

Objectives

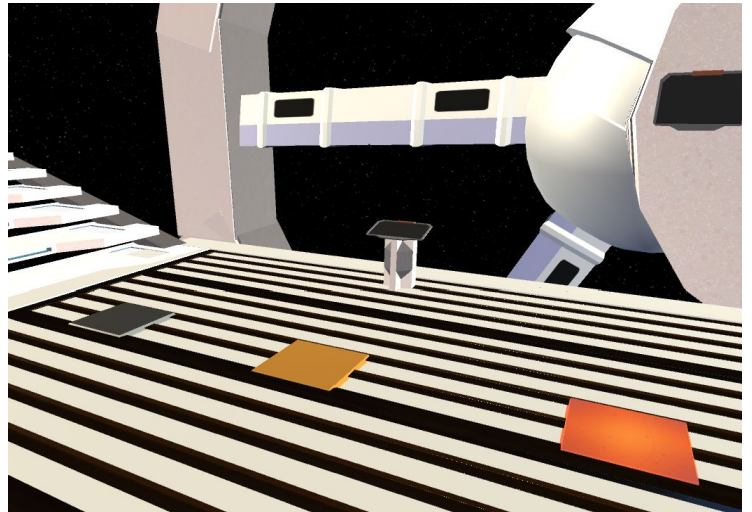
The first level is called Artificial Gravity. The large station which is formed as a centrifuge has had a malfunction with their thrusters which has made part of the station spin out of control, endangering the lives of the workers onboard.

The objective of the level is to restore power to the station in order to get the thrusters working again to slow down it's spin. To restore the power the player needs to find three different power cores (cubes) and connect them to the console, allowing the station to lower it's spin. These power cores are however spread across the level, forcing the player to explore the whole place before being able to solve the puzzle.



Map

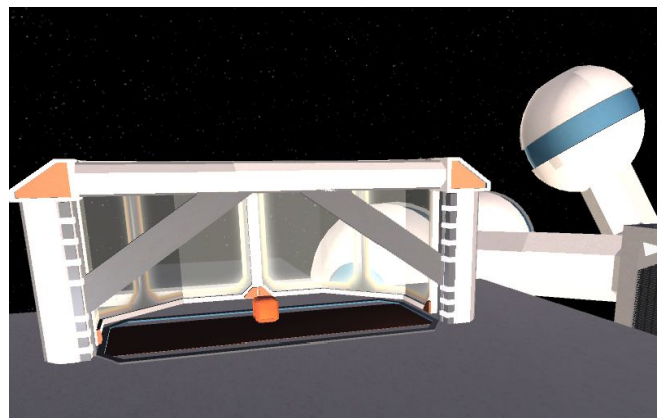
The map consists of three large “body” parts. One being the centrifuge station which spins in order to create an artificial gravity in space. The other is the docking and storage facility. This is the part which the first level, Artificial Gravity takes place. Lastly there are the living quarters.



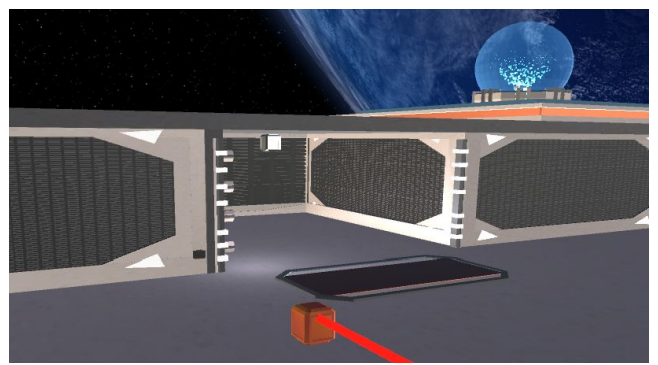
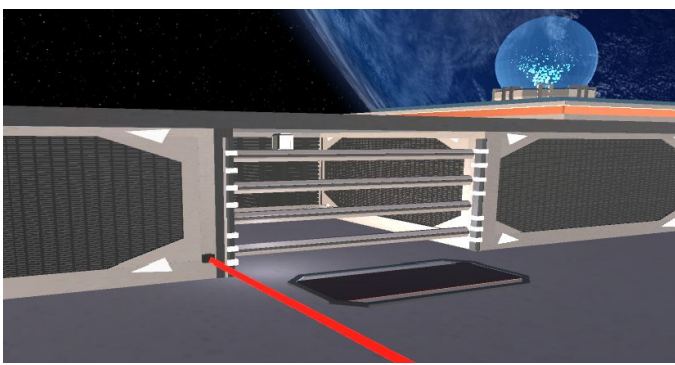
In order to reduce the stations spin, the player needs to explore the map and find three different power cores which then needs to be placed on their respective platform. The power cores have the same sort of material as the buttons do in order to make it intuitive for the player to figure out

which goes where. When they are all placed on their correct platform, then the player can walk up to the console and interact with it with the press of a button to complete the level.

The first box which is very close to the starting location of the player is easy to find which enables an easy understanding of what to look for across the map. The cores are not place too far apart, enabling the players who prefer to get the objective done quickly to do so. They do however require some searching since one of the objectives of the first level is to still get familiar with the movement and explore the environment.



The second core requires the player to solve a trivial puzzle. The core is located behind a gate and therefore inaccessible to the player at first. The gate is power by a red power beam, by breaking the beam, the gate loses power and opens. The gate however only stays open as long as the something blocks the power beam. The player may block the beam themselves but when one moves, the gate closes. Therefore the player must find an object to block the beam in order to get access. Since the first core is placed within close proximity to the second one, it makes for a suitable object to solve the puzzle.



The last power core is found a little further away from the first two. This one requires more exploration than the first ones. It is located inside a rotating tube. This introduces the player to the rotation mechanic. When in contact with a surface which rotates, the player follows the object with its rotation.



Section V – Technical

Target Hardware

As the game is to be as accessible as possible, the primary aim is to launch it on **PC**. The nature of the game would allow it to be played on console as well, however no larger market was found for puzzle games on console. It is however an interesting aspect to add an option on PC where the player has the opportunity to connect a hand-held console to their PC and use for the game as opposed to the regular keyboard.

Development procedures and standards

GitHub will be used for Version Control as this is the tool that provides most functionality. When using GitHub:

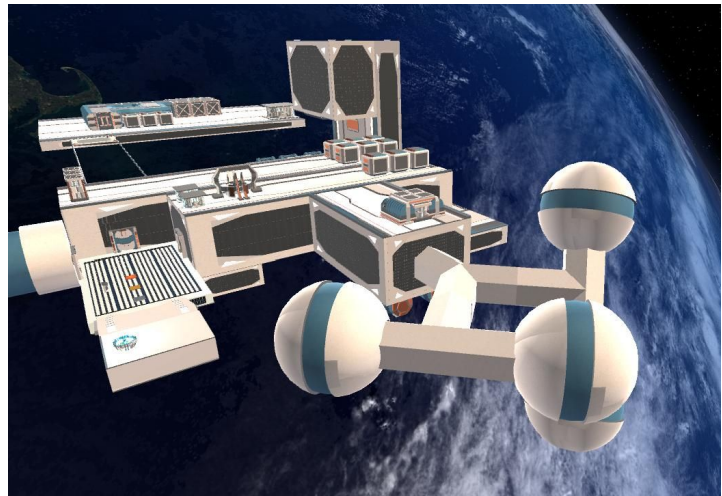
- Create one branch per feature that is being implemented
- Features will be specified as Issues
- When choosing feature, look through the existing Issues and talk to the project leader if the particular feature does not have an existing issue.
- Always work in an individual scene and do not make changes in someone else's scene.
- When the feature is implemented submit a Pull Request towards the development branch.
- The Pull Request is reviewed and accepted by people who have not worked on the feature.
- The master branch is used only when new Versions of the project are ready for release.

Game Engine and Scripting Language

Unity version 2019.2.10f1, with an IDE decided by personal preference, is used as a game engine and by extension C# is used as a scripting language.

Section VI – Game Art and Audio

A key game feature is the vast emptiness and infinity which space brings and represents. Therefore it is very important that the art and environment represents that and tries to capture that incredible feeling. Therefore the art and audio used in the game are chosen with care to try and resemble an actual space station environment despite them being placeholders.



Characters

The character is an astronaut and is hence clad in a white space suit. As the character wears magnetic boots, the legs are in a different color than the rest of the suit. In line with the game genre, feel-good, the astronaut model is a low-poly simplistic model that is generally appealing to the general public.



This particular model and its animations has been found at the Unity Asset Store. It is currently a placeholder for original models and animations ⁵.

⁵ <https://assetstore.unity.com/packages/3d/characters/humanoids/stylized-astronaut-114298>

Environment

Background

As the environments for the levels all take place on the international space station skyboxes used for the project are those of starry skies, Earth and other planets depending on the level. The background art⁶ used has been found on the Unity Asset Store as a free for use alternative.



Platforms

The platforms are made of several different free to use Unity assets available in the store. These have been mixed together to create platforms and other large objects suitable for a space environment.

Material

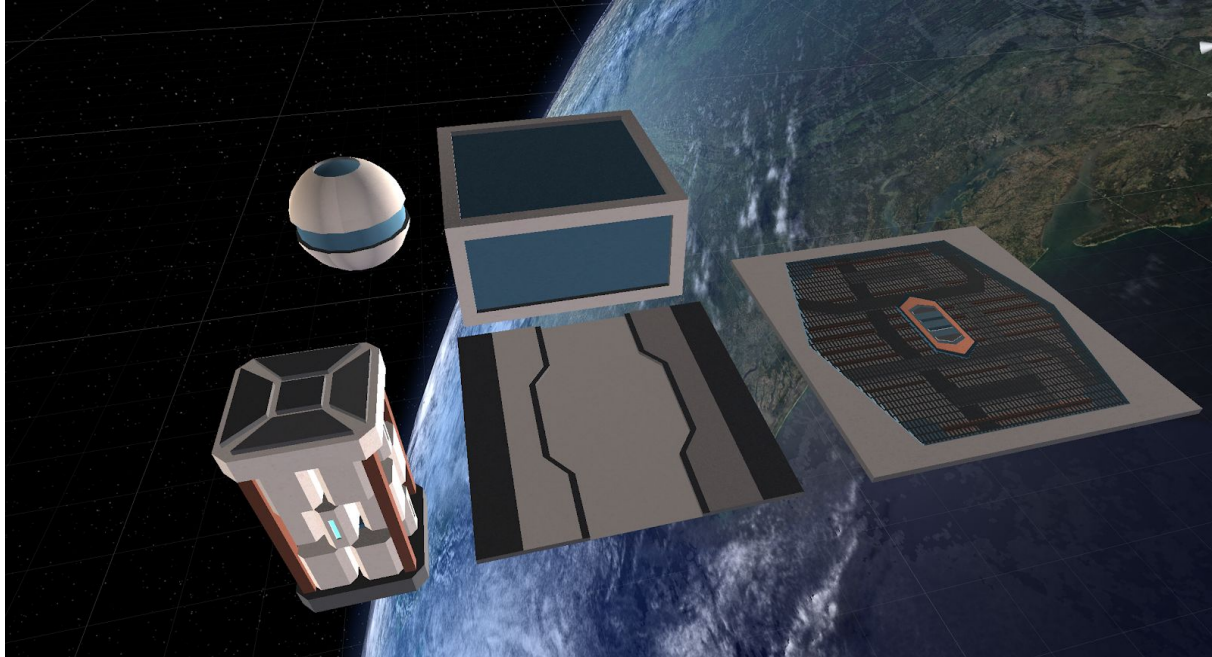
The material used for the platforms are different floor tiles and boxes ⁷ ⁸. These are used as placeholders until more proper material can be found or created for the space station design. Some of the materials used in the levels, from Unity Asset Store can be seen in the picture below.

⁶ <https://assetstore.unity.com/packages/2d/textures-materials/sky/earth-planets-skyboxes-53752>

⁷ <https://assetstore.unity.com/packages/3d/environments/sci-fi/sci-fi-styled-modular-pack-82913>

⁸

<https://assetstore.unity.com/packages/3d/environments/sci-fi/sfuture-modules-core-pack-free-old-version-98684>

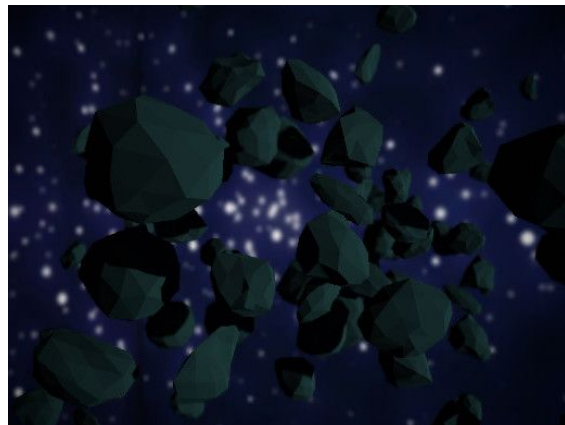


Magnetic Objects

Magnetic objects are currently represented using cubes and other primitive models, clad with materials previously mentioned. These are to be replaced with more proper models such as levers, batteries and cases.

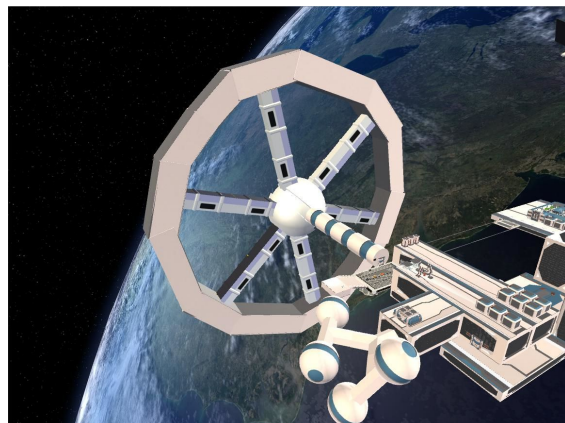
Non-magnetic Objects

Currently there is only one type of non-magnetic object, the space debris. These are represented using low-poly asteroid models⁹ found in the Unity Asset Store, which can be seen in the figure to the right.



Rotating objects

There are objects in the game which rotate around their own axis. These are used as goal objectives or puzzle pieces in the game and further enhances the feeling of zero gravity.



⁹ <https://assetstore.unity.com/packages/3d/environments/mobile-astre-pack-vol-1-68173>

Audio

It was important to maintain that space feeling that the game transmits, hence it was decided to add some music similar to Interstellar movie OST. Here is an example:

[Interstellar, Space, Dreamy Song](#)¹⁰

¹⁰ <https://www.youtube.com/watch?v=p6Zr-QTvQ4s&feature=youtu.be>

Section VII - Management

Detailed Schedule

Tasks	Week	44	45	46	47	48	49	50
Game Development								
Deciding Concept		█						
First Iteration		█	█					
Hello World Demo			█	█				
Second Iteration				█	█	█		
Level Design						█	█	
Final Iteration							█	█
Market Analysis								
Competitors Analysis		█			█	█		
Target Group Analysis		█	█		█		█	
Business Case					█	█		
Marketing Plan				█	█		█	

Game Development

Deciding Concept

A decision is made about the concept and all the details it entails.

First Iteration

The following has been included in the iteration:

- Complete a simple version of the so-called Gravity Shift. The player should be able to walk over edges and still stick to the side of the surface as if the gravity has shifted 90 degrees. The player should also be able to walk on rounded objects.
- The players should be able to lift up objects, carry them around and put the objects down.

Hello World Demo

Should include everything specified in the first iteration as well as:

- A first introductory platform that showcases the mechanic. No focus is placed on proper level design, instead the demo should include a minimal platform that forces the player to walk over edges and pick up objects.
- A UI that resets the platform, avoiding having to reboot the game to try it.

Second Iteration

After the Hello World Demo, the game has received feedback about how the movement looks, the camera work and suggested features. The following is the focus of the second iteration:

- The camera should follow the player, but zoom in when there is a wall in the way. This will clearly show the player that there is something in the way behind them as well as avoid the problem with the camera ending up in platforms at certain parts.
- Thrusters / Boosters have been suggested. A proof-of-concept implementation should be finished during this iteration. When this implementation is done, it will be decided if it is a mechanic that is to be introduced or rejected for the end product. The main concern about this mechanic is the fact that players might abuse it to solve the puzzle and hence ignore the main mechanic, that is the gravity shift.
- The movement needs to be slowed down, giving the players a bit more room for mistakes. During the demo feedback was received that it was hard to walk over thinner edges as the player often happened to walk too far making the camera shift a lot.

Level Design

The main focus during this time will be to utilize the mechanics implemented to create 2 levels:

- A tutorial level that will introduce the mechanics to the player.
- A first level including a proper, but simpler, puzzle.

For more details about the levels, read their respective section.

It has also been decided to try creating a system for extending new platforms: The player pushes a button and a part of the platform is extended enabling the player to reach new areas. This is to be added to the tutorial level at least, in case it works.

Final Iteration

For the final iteration, as of now, the following will be the focus:

- Create a testing group that can try out the levels and mechanics and provide feedback.
- Polishing mechanics from user feedback
- Create a transition from level to level
- Thoroughly test the levels implemented and make changes accordingly.

Risk Analysis

In this section the possible risks that can be encountered during the project are listed. For each risk, its probability and its impacts are evaluated in the first table, while the next table explains the action plan for each risk.

Probability scale:

1. Rare (< 25%)
2. Improbable (from 25% to 49%)
3. Probable (from 50% to 90%)
4. Highly certain (> 90%)

Impact scale:

1. Weak
2. Moderate
3. High
4. Really High

Id	Description	Probability	Impact
1	Expert collaborator leaving the project	1	3
2	Mastery of competence	1	2
3	Technical problem that is impossible to solve	3	3
4	Misunderstanding of the use-cases	4	2
5	Changes in the middle of the project	3	2
6	Users rejecting the product	1	4
7	Bad estimation of deadlines	3	1
8	Bad budgeting	2	2

Id	Description	Prevention Plan
1	Expert collaborator leaving the project	Asses if current work force can handle taking over the tasks. Reprioritize the tasks to make sure the most important deadlines are met.
2	Mastery of competence	Look for free-for-use versions of what is needed, or require competence in other ways.
3	Technical problem that is impossible to solve	Find an alternative to make the game functional while bypassing the problem

4	Misunderstanding of the uses cases	Writing specifications while frequently checking with the team avoid misunderstandings
5	Changes in the middle of the project	Writing detailed use cases to make sure everyone is on the same page.
6	Users rejecting the product	Ensure the target groups expectations via use cases and testing.
7	Bad estimation of the deadlines	Ensure that for each Milestone and Deadline there is a common understanding what needs to be prioritized.
8	Bad budgeting	Ensure that the most important phases can access the money they need.

Test Plan

The following steps will be taken to test each aspect of the game:

1. Design the feature on paper
2. Consider the different use cases and weaknesses
3. Implement feature with use cases and weaknesses in mind
4. Let the developer team test
5. Gather potential players to test
6. Gather feedback
7. Iterate on feedback

Business Plan

Mandatory Expenses

Expenses that will have to be considered are mainly two: The fee of publishing the game on Steam, Epic Store, etc, as well as the licensing fee for Unity. The Unity fee does not seem to apply to this project as it is not expected to exceed the requirements needed to utilize Unity without a license. However both Steam and Epic Store take a share of each sale, which has to be taken into account when setting a price for the game.

Market Analysis

Positioning of our game

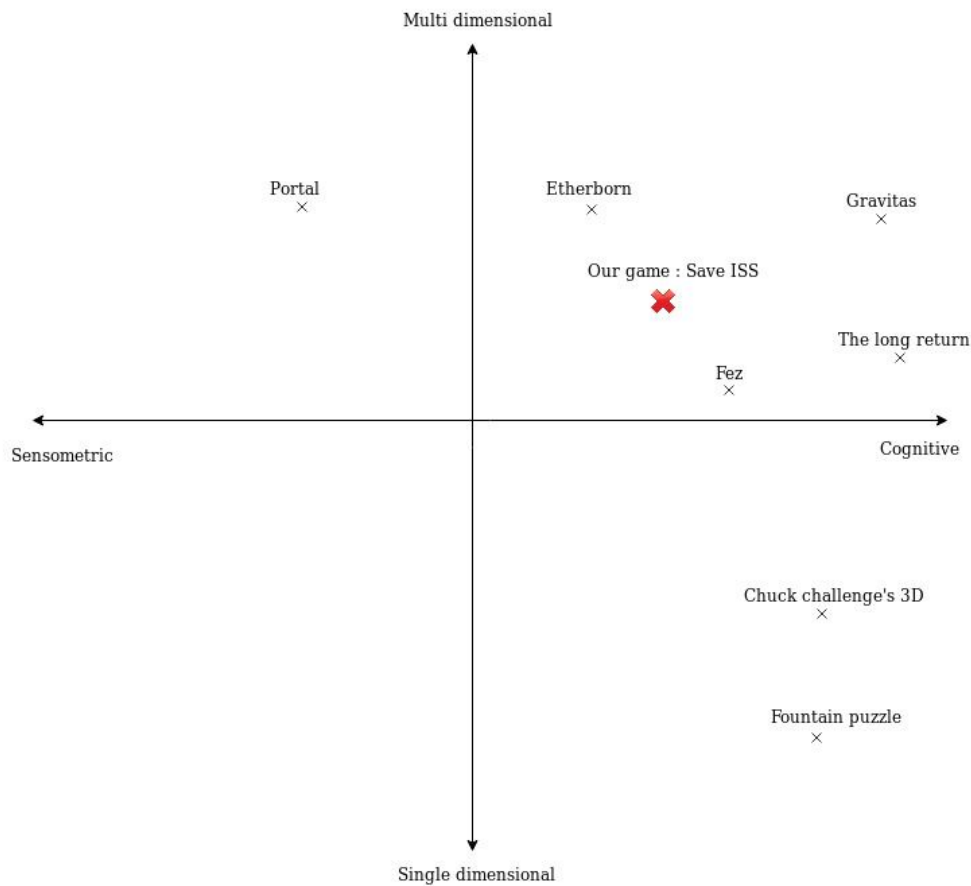
Games can be categorized into two layers: Single Core and Hard Core. The single core layer are games that are based on only one mechanic, Candy Crush being an example. The hard

core layer, also called multi-layer, are games that utilizes multiple mechanics and emphasize, for example, on managing resources and long phase planning, Fire Emblem being an example.

Empirically single core layer games are less prone to be successful, as they can tend to be repetitive and less challenging. However as the game is a puzzle game, it is unreasonable to let this game lean towards being a hard core layer game. Hence this game is categorized as a middle core game, which is generally where puzzle games end up as the puzzles are engaging. Adding multiple mechanics to the game would be possible, however, that could result in losing a part of the target audience as more mechanics could end up making the game too complicated for the casual gamer.

The sensometric skill of a player concerns physical reactions such as dexterity, reflexes, etc, while the cognitive skulls concern the intellectual ability to plan, solve problems, etc. Analyzing the skill this game requires using these skills, this game relies primarily on cognitive skills due to the nature of the game. However as the game is in 3D, sensometric skills is also implied.

Using these two axes, a categorization of this game and some competitors are shown in the figure below. The positioning is based on subjective impressions of the games, hence it is subject to debate.



Competitors

Quantitative Analysis: Pricing

Game	Price (€)	Duration	Platform
Fez	9.99	5h 52m	PC
Portal	12.28	8h 30m	PC, Xbox, PlayStation
Etherborn	16.99	2h 30m	PC
The long return	8.19	2h	PC
Gravitas	Free	1h	PC
Gravaxy	12	5h	PC

As the aim is casual gamers, the price is also aimed to be in the lower price range as it is believed that these people are not necessarily willing to pay extensive amount for their games. At the same time it is important that the game mechanics are easy and intuitive, while the puzzles are creative and engaging.

To stay competitive in terms of price, it is important to consider both what the target audience is willing to pay as well as the content delivered. The internal pricing range has been restricted to 8 - 15 euros, where 12 € is the preferred price with the content of 5 hours currently planned. Though it is not represented in the table above, the mean pricing of puzzle games and indie games in general seem to be around 8-9 €. While this game is also an indie game, the higher price can be seen as beneficial if the game lives up to the expectations of the players as well as it covers the fees required by both Steam and Epic Store.

It is however important to note that the pricing cannot be set too high as this will raise the expectations of the players. As the price increases the players expect an experience rather than a game and are less forgiving when it comes to mistakes. As this game aims to be played when one wants to pass time, setting a too large price could result in a negative response from the players as a higher price implies higher expectations. A lower price would instead not jeopardies the expectations, it would rather let the players buy the game with the expectation the marketing can deliver. A lower price can also make the game more desirable to try out.

Nonetheless, if the game play is worth a higher price, there is no reason to conform to the mean of the current pricing as this can be seen as off putting for some players ¹¹. It is also important to

¹¹ <https://www.pcgamer.com/are-indie-games-too-cheap/>

note that it is simpler to break even for the game cost with a higher price, especially if the players believe that the game play is worth the price they have paid ¹².

Qualitative: Why should anyone buy this game

Puzzle games always seem to be trendy and a type of game people enjoy doing, however they are heavily reliant on reviews and pricing. The game seems to need both a unique twist, and challenging enough puzzles to peak people's interest. The main actors in this type of game seem to be the players themselves, as their views on a game really can affect if different people try or buy the game. Their experience is hence of uttermost importance.

Based on the research made on similar games, such as the ones previously mentioned, it can be seen that the puzzles need to be challenging enough and give a sense of progression, while the mechanics need to feel smooth and well established in the game. The mechanics need to be made in such a way that the player has the possibility to utilize them in every way possible, without feeling that something is missing. As the gravity-mechanic is the main focus, it is important to make sure that that part of the game feels flawless while also being fully explored as a mechanic.

In many of the successful puzzle platform games, there has been a big focus on the graphics. One common point is that if the graphics are appealing, more people will want to play it. While the graphics are not the main focus of this game, it is important to deliver the feel-good feeling through the graphics as well as gameplay. It is hence important that all assets are similar, simple as well as fit the general appeal.

One complaint that has been observed in other games is the distance between the puzzle parts and platform parts of the game. These should be used jointly instead of being parallel or considered different. The platform should be a part of the puzzle essentially. It also seems as it is appreciated that the difficulty of the puzzles increase as the player progresses further into the game.

Conclusion

The price set for the game should also deliver content that is considered worth that price. For 5 hours of gameplay a price of 12 € is considered enough, if the puzzles are complicated enough to engage the player in a satisfying way. The price also implies a certain quality of the game, making it important to include both suitable graphics and well thought-out puzzles that do not seem unrelated during the levels.

¹² <https://www.gamesindustry.biz/articles/2017-08-23-indie-game-pricing-more-art-than-science>

Finance Plan

The main income for this project will reside in the sales of the game. Previous sections have already discussed the reasoning behind the pricing and will hence not be repeated here. As mentioned in the previous sections the pricing of the game will be 12 €, a bit above the mean of the pricing of indie games, for 5 hours of gameplay.

Marketing Plan

It seems very important to early let potential players hear about and build expectations for the game. Kickstarters or Patreons have become increasingly popular, as they let the player follow along the process of the game. Developer blogs also seem increasingly important, however it is unclear how big of an impact it makes for this game. This can also be an insufficient way to reach the desired target audience, as incentive is needed from the player to follow blogs and kickstarters. Hence, while this can be a part of the marketing strategy, it cannot be a core part of the marketing and should not be heavily relied on to bring attention to the game. Including this in the marketing strategy, especially developer blogs and interactions, can bring a hype for people that play similar games and are on the lookout for something new in the genre.

As the game is placed in space, it is of importance to highlight the feel of the game. Hence assets and graphics seem to be an important factor in gathering interest for the game. It is also important to highlight the puzzle aspect of the game and clearly show that the game is supposed to be a challenge for casual players that have a night off. A short cinematic could be a potential marketing strategy, however as story is not necessarily a core part of the game, it can also give promises about something that is not included. Hence the marketing should mostly include gameplay without showing any actual solutions for the puzzles, highlighting both gameplay as well as assets and looks. Utilizing this it would be possible to build a hype and spread the word on social media, mainly through interaction with potential players, ads, and reputation.

One strategy to market the game would also be to contact influencers on Instagram, Youtube, etc and either ask them for a review or straight up pay them for a review. This strategy would allow to target a specific target audience, while it also helps spreading the word. As ads on social media can be looked down upon, this is a strategy that could potentially spread the word more reliably. However, this makes it important to choose a proper influencer as the target group is casual players. If the main audience of the influencer is pro-gamer, the game might not be appealing enough to create the desired outcome. Nonetheless influencers combined with traditional ads will most probably help spread the word to multiple different groups of people.