Architecture Simulator

*Game Design Document*

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# INTRODUCTION

Architecture Simulator is a simulation which focuses on giving the player the ability to design their own house and walk around in. They can select between different models to interact with and do as they see fit.

# DESCRIPTION

You step out of your crashed space ship and notice there are extensive damages to your ship. You are left with three options, try and repair with what tools you have, explore terrain to try and find resources you could use, or look for help. Each choice you make can heavily impact the ending of your story. While exploring certain parts of the world around you, you begin to notice puzzles and secret passage ways that open up new opportunities for you. Treed carefully through the open would as you may find that you’re not alone on this planet. You may learn about the world around you or find new parts and tool to repair your ship in order to travel safely home. Whichever choice you make throughout your journey to return to Earth, you may come across a plethora of decisions. Some decisions could ultimately lead to your own downfall. On the other hand, they might bring you closer to finding away off this back water planet. You the player must come to terms with the decisions you make, because you cannot turn back once you start down whatever road you choose to follow.

# KEY FEATURES

* **Unique Platforming:** Will combine classic platforming with low gravity sections as well as including puzzles into the platforming.
* **Puzzles:** Puzzles will be the main way the player solves thing. For example, to repair the ship the player must complete different puzzles in order to acquire the parts necessary to repair it.
* **Destructive Environment:** Allow the player to be able to destroy the environment around them in order to gather materials to craft different items to help aid them in their quest.
* **Crafting System:** Add a simple crafting system with will aid the player in their journey.
* **World Building:** The story behind the game as well as in game features will build upon the world around the player, including what life was like on the planet and the alien race which either lives on the planet or has gone extinct.
* **Unique Story Telling:** While the player is exploring the world around them, they will come across different artifacts or object that explain the world around them. This could include the history and culture of the aliens living on the planet or give clues as to what is happening the environment as well as the people.

# GENRE

A simulation of building a house in VR.

# PLATFORM

Platforms: PC, Oculus Rift

Will have a VR component, which will allow users to play as the player in a VR setting.

No Multiplayer, Will be strictly a single player game.

# SIMILAR GAME

I would compare my game to Super Mario Galaxy because of its setting and unique puzzles that the game has. It is also a good example of the kind of platforming I would like to have in my game.

Super Mario Galaxy Trailer: <https://www.youtube.com/watch?v=8Mng-r3D20Y>

**Actions**: The actions are the things players do while playing the game. Often, these involve using the objects in varying ways.

The actions between my game and SMG are very similar. They are both platformers with puzzles on the side. However, one action that SMG has that my game does not include is boss fights. Mario fights multiple different bosses throughout his travels through the galaxy.

**Rules**: The rules define how the game is played. The rules determine the use of the objects, the permissible actions, the play space, the number of players, the goals of the game, even the length of the game.

The rules in my game are fairly simple. The player will have a set area they are allowed to explore throughout the game. They will have different traps and obstacles to overcome in order to complete their goal. If they were to fail, they will a life. However, I have not decided on how many lives I am going to give the player but somewhere between 2-5. SMG has very similar rules. The only real difference the power ups Mario collects. There are many power ups including the rainbow star and different various on that same power up.

**Goals**: The goal(s) of a game establish what the players are trying to achieve.

The goals for my game are for the player to come to one of two choices. To either escape the planet and return to Earth or save the planet and its people from their inevitable doom.

**Objects**: The objects in a game are the elements with which the game is played.

Platforming and solving puzzles are the simplest “Object” within my game. Another object I intend to include is a tool that allows the player to destroy materials and craft tools in order to help them achieve their goal. They cannot reach a certain part of the map, but it looks like they could if they had a ladder. The player can break some wood or stone and craft one.

**Play Space**: The play space is the area within which a game is played.

The play space for my game will be a one to two level world planet terrain style world. Similar to SMG but SMG you can travel from different planets that have different worlds.

**Players**: The players are the participants in the game.

There will be one playable character that players can control and explore with throughout my game.

# OBJECTIVES

The player will have two objectives which they can choose to purse freely, but once they choose which path to go down, they are unable to turn back. The first main objective is to get off the planet by repairing your crashed spaceship. The player can do this by exploring the area for supplies and tools necessary to make those repairs. The second main objective is to find out what is happening on the planet and help those people or aliens living there. Player can do this by exploring the area and learning about the planets people and culture.

In order for the player to complete either one of these objectives, they will have smaller, puzzle like challenges to overcome in order to access the parts and material they need. Whether this includes platforming or solving a puzzle. Again, once the player choses a path to go down, they cannot turn back. (This is subject to change though as I am still thinking of an ending.)

# MECHANICS

The main “mechanic” in my game would have to be platforming. Lost in Space will focus heavily on this mechanic as it is how the player will explore the area around them. Another mechanic which may make it into the game is a crafting system. Player will be able to grab certain materials and craft tools they may use to help them traverse the world. The other mechanic will be simple puzzle solving. Puzzles are the main way the player will unlock certain tools and information necessary for their escape off the planet and to find out what is going on with the aliens. I may also implement a way for the player to defend themselves but that be entirely based on if there are enemies or not.

# RULES

The main over aching rule of the game is you must explore in order to accomplish whatever goal the player has in mind. They are limited to the area they can explore, meaning the world will only be so big with some areas being unable to access unless a certain tool is collected or built using crafting.

# CONTROLS

Controls will be simple. Players will be able to move around and be able to pick up and place objects.

# STORY

There is no story for this game. The idea behind it however stems from people walking through houses in VR. I wanted to take that a step further and allow them to actually build what their future house might look like.

# GRAPHICS STYLE



I want to go for a very simple graphics style. One that gets the job done but also looks good at the same time. I would like to try and do one of the styles above. The style for Link would be very good to use as I like its cartoonish aspect but also looks amazing to look at. The same goes for the Mario game. It has vibrant colors and looks good.

CHARACTERS

There is not a character for my game. The “character” is the is player themselves.

DEVELOPMENT DIFFICULTIES

I think the hardest thing to do in this game is going to be coding and designing puzzles. It will be difficult to create an interface for the player to interact with puzzles and solve them in the correct manor. Also creating 3D assets will be a challenge as well due to not having much experience making those kinds of objects.

DEVELOPMENT SCALE

Smaller

If the project seems to be too ambitious, I would most likely scale back how many puzzles are in the game or remove an aspect entirely. For example, the crafting system was a last-minute idea I sort of just threw in there as my game was kind of lake luster but if it proves to be too much of a challenge to implement then I would dumb it down or remove it entirely.

Larger

If my game proves to be too small then I would like to maybe add more levels to the game. As of right now I only plan on making one open world style area which will be sort of a medium size. If it ends up not being enough, then I will make multiple levels for the player to go through.

APPENDIX 1: Ten Ideas

* Snowboarding/Skiing game
* Puzzle game
* Tower defense
* Card fighting
* Shooter survival
* Platform shooter
* Sandbox
* RPG single player
* Treasure hunting