# **EcoSphere Simulator**

<Your Company Logo Here>

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TL;DR - Keep the credits section of this document intact and we are good and do not sell it.

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## Overview

# Theme / Setting / Genre

• Ecosphere Simulation Game

## **Core Gameplay Mechanics Brief**

- Manage plants and animals in a ecosphere in a way that they can survive together.
- Gain money by keeping organisms alive, use it to buy more organisms and unlock decorations.
- Manage O2 and CO2 as well as other elements in the ecosphere.

## Targeted platforms

• Web game, HTML5

## Monetization model (Brief/Document)

- <Monetization Type> (Premium, Paid Alpha/Beta/Final, Ad Driven, Micro-transactions, Subscription, etc.)
- <Link to Monetization Document>(How do you plan to monetize the game?)
- Currently no monetization plans.

## **Project Scope**

- <Game Time Scale>
  - How much will it cost?
    - \$0.00, unless I want to commission art.
  - How long will it take to make this game?
    - depends on how active I am working on it, but I am giving myself until the end of 2017.
- <Team Size>
  - <Core Team>
    - 1. Robert Pence
      - What does he/she do?
        - Creator, Everything
      - Cost to employ them full time or part time?
        - \$0.00, just my own time.
  - <Marketing Team>
    - 1. Robert Pence?
      - What does he/she do?
        - o I probably won't market this game. So nothing.
      - Cost to employ them full time or part time?
        - \$0.00, just my own time.
- <Licenses / Hardware / Other Costs>

Licenses Costs: \$0.00

Hardware: Laptop and Monitors: \$0.00 Already Own

Other: None right now.

- <Total Costs with breakdown>

Me my own time

Licenses free Hardware free Other free

Total: free

#### Influences (Brief)

#### - <Influence #1>

- <Real Life Ecospheres, Youtube "Ecosphere">
  - Essentially what i'm trying to simulate. There are many good youtubers who have created their own ecospheres, or sealed terrariums such as "CodysLab" or "Dustin Pak" or "SerpiaDesign".

#### - <Influence #2>

- <Simulator Games/Oxygen Not Included>
  - Simulator games where you press a few buttons and then let the game play itself while managing bits and pieces.
  - Oxygen Not included in specific because in ONI you have to manage a lot of very complex things as they come up such as oxygen, water, pressure, temperature, and food levels. You also have to manage the levels of the elements in your asteroid similar to what you have to manage in a ecosphere. Oxygen, Carbon, Hydrogen, Nitrogen, etc.

#### - <Influence #3>

- < Medium > (Television, Games, Literature, Movies, etc.)
- /Explain why this is an influence in 1 Paragraph or less/

#### - <Influence #4>

- < Medium > (Television, Games, Literature, Movies, etc.)
- /Explain Why in 1 Paragraph or less/
- /Explain why this is an influence in 1 Paragraph or less/

#### The elevator Pitch

<A one sentence pitch for your game.>

You have to manage a ecoSphere, a sealed off tank of water with living things in it, by balancing the flora and fauna in a way in which your ecosphere survives for as long as possible.

# **Project Description (Brief):**

A game in which the player has to manage a mini ecosystem inside of what is essentially a sealed fish tank. The player must manage the levels of essential elements in their ecoSphere so that the plants and animals inside have the correct levels of elements to survive. The player can add plants or animals to the ecoSphere by buying them with gold. The more complex the organism the higher the cost. Each organism uses either oxygen or carbon dioxide to survive and requires some sort of food.

To gain gold the player must have plants or animals surviving in their ecosphere. They can use gold to buy more animals or plants if theirs die off, or they can use it to buy decorations, different backgrounds, etc. There is no way to win the game just play for as long as you can and create the coolest looking ecosphere.

## **Project Description (Detailed)**

<Four Paragraphs or more If needs be>
<No more than six paragraphs>
I'll write this later.

# What sets this project apart?

- I don't know of any other game that lets you manage a ecoSphere.
- complex managing of the different elements/nutrients
- <Reason #4>

## Core Gameplay Mechanics (Detailed)

- <Manage plants and animals>
  - < Details>
    - Manage the plants and animals
  - <How it works>
    - Player can manage the plants and animals that go into the ecoSphere by buying the starting plants and animals. With the money you gain you can buy predators or other plants that will help control the population of animals inside the ecoSphere.
- <Unlocking decorations, plants, and animals>
  - <Details>
    - The player can unlock decorations, plants, and animals by completing requirements to unlock them.
  - <How it works>
    - Examples of requirements include the number of different plant or animal species, number of days things have survived, how much money the player has, amount of different nutrients the player has etc. The player must meet certain requirements to unlock new species of plants and animals. Same with different cosmetic decorations or upgrades.
- <Manage O2 and CO2 as well as other elements in the ecosphere>
  - < Details>
    - You have a finite amount of resources in the ecosphere. Every living thing uses some of those resources and outputs other resources. You must manage the balance.
  - <How it works>

 The player has a finite amount of resources in the ecosphere. Every living thing uses some of those resources and outputs other resources. You must manage the balance. For example plants use CO2 to grow and produce oxygen while animals produce CO2 and use O2. When some of these resources are depleted the plants and animals die.

## - <Core Gameplay Mechanic #4>

- < Details>

/Describe in 2 Paragraphs or less/

- <How it works>

/Describe in 2 Paragraphs or less/

# Story and Gameplay

## Story (Brief)

<The Summary or TL;DR version of below>

There really isn't much of a story. You control a ecosphere. Help it thrive.

## Gameplay (Brief)

<The Summary version of below>

Player picks what plants and animals to put in the ecosphere and watches them survive and grow while managing the levels of vital nutrients that they need to survive, as well as making sure that the plants and animals have enough food. Later on when the player meets certain requirements and unlocks different species of plants and animals.

## Gameplay (Detailed)

<Go into as much detail as needs be>

<Spare no detail>

<Combine this with the game mechanics section above>

Same as above, I'll write this later.

## **Assets Needed**

#### - 2D

- Textures
  - Title Background
  - Splash/Loading Screen
  - brand icon
  - Pause menu UI
    - Buttons
    - o background
  - Settings menu UI
    - Buttons
    - o Background
  - Game Backgrounds
    - Living room
    - Desk
    - o Etc
  - Animal and Plant textures(alive and dead)
    - o Brine shrimp
    - Algae
    - o Fairy shrimp
    - Triclops
    - Daphnia
    - o Etc
  - Decorations
    - Rocks
    - o Fish Tank decorations?
    - substrate(sand or gravel)
    - o Pieces of wood.

#### - Sound

- Sound List (Ambient)
  - Background music, peaceful
- -Sounds List(organisms)
  - For large organisms make a noise when they eat?
  - Sound for when you buy them.

#### - Code

- Character Scripts (Player Pawn/Player Controller)
- Ambient Scripts (Runs in the background)
  - Example
- NPC Scripts
  - Example
  - etc.

#### - Animation

- Environment Animations
  - don't have any planned, but if i learned how to animate things in a month then it would be cool to have some in the background.
- Character Animations

Animations only necessary for bigger sprites

- Plants
  - If I decided on a complete list of plants the big ones will get animations
- Snails
  - Animation for eating
- Worms
  - Movement animation
- Shrimp
- Small Fish

# Schedule

- <Object #1>
  - 12/7/17
    - Create system that lets animals eat algae
    - Add in more animals
    - add in more elements/nutrients
- <Object #2>
  - 12/14/17
    - add in more animals
    - add in more plants
    - add settings menu
- <Object #3>
  - 12/21/17
    - add sounds
    - add animations to things
    - playtest
- <Playable version of the game>
  - 12/31/17
    - Player can play game
    - Managing EcoSphere
    - Add decorations