GEO-STASHER

A game design document by the illustrious

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For VGxUnity2D

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13. General Overview

**Target Demographic** – The overall game is aimed for all ages. No violence or mature themes whatsoever. Not even a bad word is to be found.

**Target ESRB Rating** – Given the family-friendly nature of the overall gameplay and themes for Geo-Stashing, I would apply for an E for Everyone rating for Cartoon Mischief.

**Target Platforms** – Initial release will be for PC, specifically released on itch.io as a freebie title. If the game gains popularity, we can think about making a mobile version.

**Logos** – (insert logo here)

1. High Level Overview

Geo-Stashing is a casual, score-based 2D game reminiscent of arcade claw machines and early flash web browser games. The player takes control of clever astronaut “Gripp Stronk” as he flies off to distant worlds in hope of uncovering a wealth of resources. Gripp utilizes his trusty space ship and inventive “Grapple-Meister v1”; A hobbled-together contraption with a long rope and over sized claw. Gripp uses his machine to collect different rocks, gems and lost alien tech deep under the surface of each alien planet. The different rocks and gems can be refined into various objects to be sold back home for “dollahs”, which not only increase a player’s high score, but allow for a few permanent upgrades like longer rope, a bigger claw, slower aiming speeds, and better payoff from refinement. A player may also snag a powerup item in their claw while probing around. These pickups provide a TEMPORARY powerup for the player. Some things include a bigger claw for X seconds, wider camera view to see deeper underground, and faster claw recall speeds for X seconds. There’s one final entity a player may encounter while digging around other planets, that would, of course, be aliens! Small aliens wandering through the game environment, and they are NOT friendly! If the claw hits one of the planetary natives, they will smack the claw then run away! Gripp will have to recall his claw and suffer a penalty. This all sounds great, but there’s a catch. Gripp’s oxygen tank only lasts for so long, and his claw machine is too big to set up inside his ship fully assembled! Hence the player only has a limited time to probe around each planet, and they need to accumulate enough points to surpass the set milestone in order to progress to the next level. In game terms, Gripp needs a lot of money and resources to power his ship for travel. If he can’t get enough resources in the day, he must try again from square one the next day. After all, even idling the ship requires a lot of resources!

1. Game Mechanics/Elements

**Player Character** – The player uses gripp’s claw machine to interact with the game world. The claw has 6 states; idling, launching, collecting, recalling, and retrievingItem. Let’s go over what these states do for the claw machine.

**Idling** – While idling, the claw is at rest, pulled back to where the spindle of the machine is with 2 claw lengths of rope slack. The claw unit from where the rope meets the spindle and downward is constantly translating back-and-forth along a 130 degree arc. The animation state is set to “OpenClaw”

(player presses “launch claw” key)

**Launching** – Gripp pulls a lever, and a power bar appears in the Game’s UI. The claw and its rope have frozen in the position it was on when the player pressed “launch claw”. The power bar helps indicate to the player roughly how far the claw will drop. More power = deeper distance. This power is determined between 1 and 100; where 1 is least power and 100 is the most power. After the player presses “launch claw” a second time, the claw will travel in a direction equal to the angle it was stopped on, and at a distance equal to its power times a base 1 in-game meter per second. The claw will continue on this trajectory until one of three things happens; The claw hits an item or powerup, the claw hits an alien, or the claw doesn’t hit anything. If the first event occurs, the claw’s state will switch to “Collecting” and the respective functions will be carried out. If the claw hits an alien, the player loses 10 seconds from their allotted time limit and the claw’s state becomes “Recalling”. If the final event occurs and the claw misses any potential game object collisions; Upon reaching the travel distance determined by the power of the shot determined earlier, the claw’s state will switch to “Recalling”.

**Collecting** – The claw will stop in its current position and the animation state will switch to show the claw closing around the object it hit. After the animation finishes, the item will switch states to follow the claws position and the claw will switch it’s state to “Recalling”.

**Recalling** – The claw will reverse along it’s initial trajectory, following it until the claw makes it back to it’s initial launch position. If there is an item in the claw’s grip upon arrival, its state switches to “RetrievingItem”. If the claw is empty, its state is switched to “Idling”.

**RetrievingItem** – The claw’s animation state is changed to “openClaw”, and the item within the claw’s grip is then checked. If it’s something that provides points, the score is added to the player current score. If the item is a powerup, the respect changes are applied to the current game session. After these changes are applied, the item is destroyed from the scene, and the claw’s state is set to “Idling”.

**Enemies** – The different types of enemies are fairly similar throughout the game. The key difference between the base enemy and each of its children are the different time penalties and travel distances they are dictated by, As well as different sprites. Enemies have three states: Idling, Moving, and Swatting. Enemies spawn randomly on the game map, with each layer spawning a set number of enemies in different, random positions.

**Idling –** The enemy’s animation state is set to “Idling”, the enemy itself does not move until interacted with or told to by its methods. If the claw hits the enemy, its state is changed to “Swatting”. If the enemy’s AI tells it to at random, its state will switch to “Moving”.

**Swatting –** The enemy’s animation state is switched to “Attack”, and after the animation finishes the enemy’s state is switched to “Moving”.

**Moving –** The enemy’s animation state is switched to “walk cycle”, and the enemy AI is given a random position given within the “cavern area”, (more info on cavern area definition later in this document), and the enemy begins translating to that random position over X seconds. If an enemy is hit by the players claw while still moving, the state will be set to “Swatting”. If the enemy finishes their translation to their destination position, their position is set to “Idling”.

**Items/Powerups** – While the items themselves don’t have states, they alter the player’s claw or other game elements in an effort to improve their score and gameplay experience. The five types of items are:

**AddScore –** Adds an amount of score equal to the items level to the players overall score for that round.

**DoubleScore –** Doubles all score received from items for the next X seconds. Can be stacked.

**BiggerClaw –** Adds a total value of 0.5fto the current scale on both of the claw’s axes. This effect can be stacked.

**LongerRope –** Adds a length equal to 20 units to the claw rope’s length. This alters the max distance achievable on a full-power “launch claw”. Can be stacked.

**WiderView –** Pans the game camera out to provide a wider shot of the game area while claw is in “Idling” state. This allows a player to see items that were unable to see before, including super score items that adds absurdly high amounts of points to a players score. Can be stacked 3 times for full view of game area.

1. Characters

**“Gripp Stronk”** – The player’s character. Gripp is inventive, wise, and determined to make a fortune mining new worlds! He uses his trust space ship and claw machine to achieve his dream of retiring early.

**The Aliens** – Angry at Gripp for invading and pillaging their homeworld, these aliens try to swat the claw machine away from the precious resources.

**Ship’s A.I** – Gripp’s ship has a sentient A.I computer onboard. However, since Gripp never gave it a proper name, it’s speaks to Gripp with nothing but snarky attitude and razor-wit quips.

1. The Claw

Gripp’s claw machine, aptly named “Grapple-Meister v1”, is his main source of income. He loves this machine more than he loved his alien ex-girlfriend, showing his true colours whenever it busts and needs repairs. Gripp positions the claw above super deep craters that he finds. The claw itself is dictated in-game by the player, and they have to time their power and trajectories perfectly in order to achieve the maximum score. The biggest draw backs are the claws lack of rope, and its slow speed without any powerups. Thankfully, the alien deep is untouched by others, and has bountiful treasures just waiting to be ripped from their home.

1. Items/Powerups

The items that provide score for a player will be rocks, gems and fossils. This allows them to be distinguished from powerups, which will have the appearance of alien tech or artifacts. Images are still in progress. A set number of items and powerups will spawn per game area layer.

1. Levels

There are three planned levels. Each level is themed after different space biomes. The first is a “jungle” biome, the second is a “mountain” biome, and the third is a “Lovecraftian-void” biome. The levels themselves are laid out roughly the same with major differences being in appearance and how many layers deep the gameplay area goes. Each consecutive level after the first adds an additional layer of depth to the gameplay area. A certain hi-score is needed from the player in order to progress through the levels. Images are in progress.

1. UI

UI Design still in progress

1. How to Win/Lose

The object of the game is to achieve the high score each level to progress further to newer, more challenging levels. If a player cannot achieve the set score within the time limit, they game ends and they are brought to a “Lose” screen where they can try again or quit. If a player achieves the set score in the level, the player is taken to the map overworld, where they can choose to spend their score to go to the next planet or quit to the main menu.

1. Controls

The controls for the game are very simple. The player will use their mouse to navigate the menus. While in game, the only keys used are space, Z, X, C, and escape. Below is a chart showing the controls and their respective effects in-game.

|  |  |
| --- | --- |
| **Key** | **Effect** |
| Mouse 1 | Confirm selection in menus |
| Space | Sets trajectory and power for the claw machine |
| Z | Activate Power-up slot 1 |
| X | Activate Power-up slot 2 |
| C | Activate Power-up slot 3 |
| Escape | Open pause menu |

1. Menus

Menu design still in progress.

1. Misc.