G-ASTRO

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Design Document

Basic Information

Current status report

- The game is near completion, with a release on Steam imminent.

Concept Statement

G-ASTRO is a single-player, relaxing exploration game placing you as an intergalactic space snail tasked with finding a new planet to inhabit and terraform. Discover alien materials and use them to craft new technology to explore this lonely but oddly satisfying world.

The game is used as the final game project for the creator's university course.

Genre

This game is used to pay homage to popular exploration games while focusing on providing a relaxing exploration experience, creating a calm environment for the user to explore and relax with.

Target Audience

The target audience is focused on a PG audience (11-16) with a heavy lean on players who enjoy exploration and crafting games, as well as relaxing "comfy" games.

Concept Paragraph and Unique Selling Points

The game mostly focuses on the core loop of exploring the planet and creatures, gathering resources, and crafting newer and better ways to discover and explore.

The player is able to traverse by hiding in their shell in a fast "car-like" mode which allows you to explore the landscape with quick speed. When stood still, however, they come out of their shell. Each mode has its benefits and detriments as time spent in both modes decreases the different meters which the player needs to survive.

As the player progresses throughout the game, they can: explore further, collect harder-to-find / harder-to-collect materials, and discover more lore about the world that surrounds them.

The setting of the world is a very different, relaxing and peaceful yet full of strange flora and fauna. This game attempts to allow the player to relax and

casually explore this strange new world while uncovering the story hidden beneath.

This game's unique selling point is the combination of land exploration games such as Astroneer, Raft, or Subnautica with the satisfying and "comfy" vibe which is found in games such as Minecraft or Animal Crossing.

Prototype: 🖼 gASTRO Demos

Player Experience

The player is an intergalactic space snail stationed on an unknown planet.

The game should last roughly 5 to 20 minutes depending on how far within the game the player is willing to commit. It is a very casual game intended to relax the player so they are free to explore the game for as long as they need to relax themselves.

The game allows the player to explore a new world as if they were a space explorer from the far distant future. The player should feel relaxed and comforted by this world and be interested in what lies hidden across the planet.

The player should start the game curious about how the game works, impressed by the satisfying exploration of the world and finally relaxed as they become more comfortable with the game's mechanics.

Key Moments

The player first encounters the planet and is shown both snail and shell modes to allow them to get used to switching between them

The first major challenge that the player encounters is the balance between the energy and moisture meters, to stay protected from enemies (initially the Shark) who want to hinder the player's progress.

The second major moment is the collection of materials nearby as they need to collect the objects, teaching them the basic mechanics of how exploring the planet works.

The third major encounter is the player crafting new objects/upgrades from the materials they have gathered.

After completing these three steps, the player should understand the most basic mechanics of the game and be able to comfortably explore the planet to their heart's content.

The player would repeat the three core steps of the game until they encounter the final key step, which would be finding a lore integration culminating in the final plot twist.

Art, Sound, and Music

G-ASTRO

[New Save]

Load Save
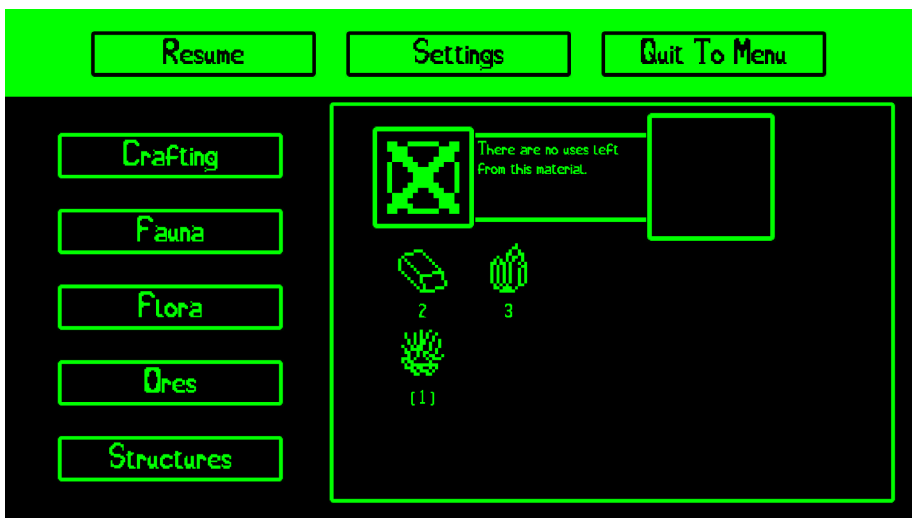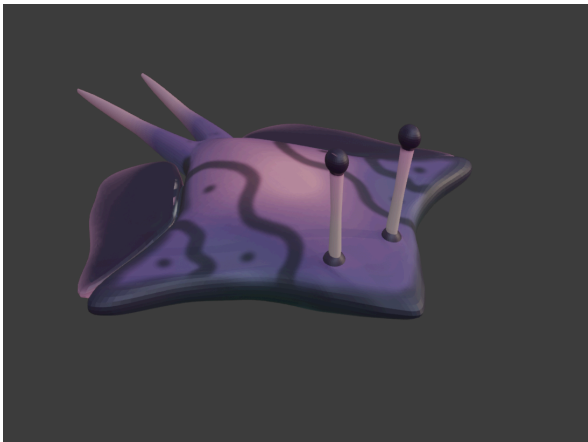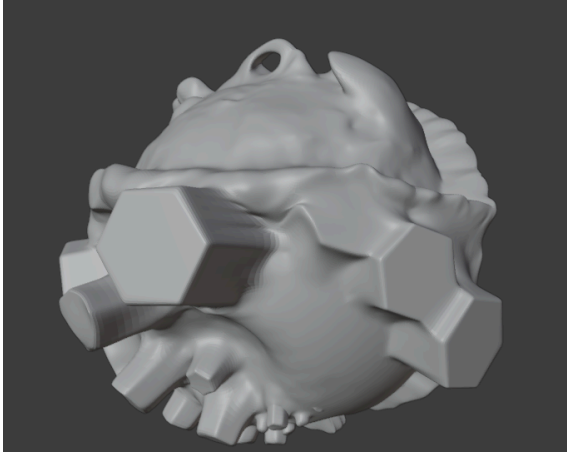
Settings

Quit

Resume   Settings   Quit To Menu

Crafting

Fauna

Flora

Ores

Structures

There are no uses left
from this material.

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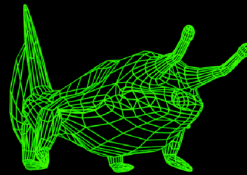
[1]

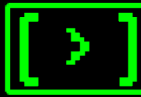Crafting

Fauna

Flora

Ores

Structures

Name: Sproutse
Biome: Chatterwood Forest

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Information:
While small in size, Sproutse are a fearsome predator in their animal kingdom. After pretending to be their prey's food, they spring out and attack. Catching the prey off guard, they will climb to their nests.

Collected FAUNA: 6/6

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Auditory

The game's audio shall be in tune with similar peaceful games, containing minimal sounds (the drag of the player against the sand, some winds, computer beeps, and perhaps material collection sounds) so that the player is more relaxed in this game than immersed, allowing for them to enjoy peaceful escapism compared to the more aggressive branch that most games take.

In-game audio examples can be found here:
https://www.youtube.com/watch?v=uLZpuZeTY7g
In-game music examples can be found here:
https://www.youtube.com/watch?v=U1jCFLUEzoI

Visual and auditory inspiration can be found here

Programming

[Link](#) to the document detailing all of the programming required.

Design

Current Target Platform (and any system requirements)

Windows (PC)

Competition

Astroneer (Space discovery and exploration game), Minecraft (Cosy exploration game), Satisfactory (Planet discovery and collection), Starfield (Planet discovery and collection)

Player objectives and progression

Who is the player?

- The player is a snail
  - The player knows they need to explore the planet, which they have been designated
  - The player needs to collect resources and upgrade their technology to explore more areas of the planet

Moment-to-moment gameplay

The player spends most of their time exploring the planet, crafting, scanning, or collecting material. Their core gameplay is exploring.

Core loops and outer loops

The player's core loop should be: explore, discover, collect, and craft. This repeats until it culminates at the final cutscene of the game, where the player discovers the remnants of a former colony, which look [oddly familiar](#).

Level Design

- *Guiding the player through the unique mechanics*
  - Immediately, the player is prompted to press the Walk keys, allowing them to walk.
  - When exiting the Ship, they are prompted to move their camera around.
  - They are then told the controls for their Speed.
  - The player is prompted when the Snail's battery is low, suggesting they charge by staying still.
  - When highlighting an object, a screen prompt will appear telling them to collect it.
  - After interacting with an object, the player is prompted to check their Osnailloscope in the pause menu.
- *Osnailloscope*
  - The player is equipped with a data tracker which can be found in the Pause Menu. The player can find information on data which they have previously discovered.
  - *Logging*
    - **Fauna**
      - Snail
        - N: Spiropia
        - D: Evolved intelligent lifeform. Reliant on Shell which contains a highly advanced cooling and moisture system. Shell is solar powered and struggles to charge when moving.
      - Butterdry
        - N: Desolert
        - D: Primitive lifeform who leaps through their habitat. They typically travel in packs, with the smaller of the pack following the largest (who is typically the Queen of the hive). They resemble that of an animal which is common on Spiropia.
      - Slammerhead
        - N: Desolert
        - D: This predator relies on their sense of moisture. They will find prey nearing drying out and attack on them when most vulnerable.
      - Quarta Bear
        - N: Quartarctic

- - - - ○ D: This large creature relishes being lazy. They feed off of nuclear energy and spend most of their time asleep.
      - ■ *Flora*
        - ● Shrub
          - ○ N: Desolert
          - ○ D: A dry shrub with not much of a future. Born here hoping for a better world.
        - ● Blines
          - ○ N: Chatterwood Forest
          - ○ D: A simple vine of a much larger ecosystem. They cannot see and are born to feel.
        - ● Chatree
          - ○ N: Chatterwood Forest
          - ○ D: The creature loves to shout and sleep. They resemble a primitive creature which is found on Spiropia.
- ● *Biomes*
  - ○ *Desolert*
    - ■ Goals for Player
      - ● Craft one ore in the crafting menu.
      - ● Discover a large structure of old civilisation
      - ● Become hooked by the fun and unique movement.
      - ● Reeled in by the environment around them.
    - ■ How the goals will be achieved
      - ● The first level which a player will encounter.
      - ● The level contains a few hills and cliffs for the player to fall off of and experiment with the movement.
      - ● It contains ores for the player to experiment crafting with.
      - ● Exit to this biome requires the player to have a level 1 mining level
  - ○ *Chatterwood Forest*
    - ■ Goals for Player
      - ● Craft new ores.
      - ● Discover smaller structures of the old civilisation
      - ● Start to increase the difficulty of their movement to train for later puzzles.
      - ● Explore more of the wildlife; keep the player hooked.
    - ■ How the goals will be achieved
      - ● Introduces ramps and new ores.

- Allows the player to have a lot more fun with the movement system.
- The main exit to this biome requires a level 2 mining level.

- *Quartarctic*
  - Goals for Player
    - Introduce harder puzzles to test the player.
    - Discover a large half-buried mining facility from old civilisation.
    - Switch up the environment.
    - Discover the final ore.
  - How the goals will be achieved
    - Introduces horizontal boosts onto ramps to clear ditches.
    - Quarta bears act as trampolines.
    - The main exit to this biome requires a level 3 mining level.

Game World

- *Backstory*
  - In a far distant future, the galaxy is populated by hyper-intelligent insects. The player is the first intergalactic space snail hoping to find a new world for his kind to inhabit.
  - Landing on this new world, it is the snail's job to explore the planet and discover more about it. The rocks, the previous inhabitants, the longevity of living on the planet, etc.
  - By the end of the game, it becomes clear that the planet is a viable option. The player comes across a large structure left by the previous inhabitants. The player comes to find that this structure was left by the snail kind, as we have landed on a far future version of the planet which we once left.

- *Biomes*
  - **Desolert**
    - As the name suggests, a desolate desert
    - Small, little Butterfly-Mantarays prance through the desert.
    - Following these tiny critters will lead you towards new ores.
  - **Chatterwood Forest**
    - Large trees with smooth hitboxes to avoid players constantly bumping into hard objects.
    - Players can scale up roots and fly off of them, using them as ramps.
    - Trees are hollow at the roots so players can run under trees.
    - Trees higher up will talk to each other.
    - Little trees will natter on.
    - Leaves from trees will lead you towards ores
  - **Quartarctic (Boron, Moissanite)**
    - Evaporate deposits.
    - Extreme radiation has caused any surviving plants to hate being looked at.
    - Quarta bears lie on the ground and can be used as ramps. They are lazy. (Tardigrades)
    - Plants will be used as jump pads as they look to check if the Player is gone.
    - Players can reach the peaks of these mountains by using jump pads. Meteor has crashed in the epicentre of these peaks and is only accessible by using the jump plants.
  - **Ores**
  - **Structures**
    -

- *World physics*
  - The world's gravity is fixed onto the centre of the planet
  - The player can move around the planet with their gravity staying fixed to the ground.
  - Shell Mode
    - Fast, can traverse ground quickly and can launch off mounds of sand acting as ramps to make for "cool" and satisfying landings.
  - Snail Mode
    - Slow, can traverse ground but at a slow speed, can be used to access technology and scan/interact with the world around the player.

User Interface

Summary

- Menu
  - The main menu resonates a style similar to the technology seen in a game such as Alien: Isolation where it holds this retro-futuristic theme, with the menu being set on a classic-looking 70s computer graphic with a black background, green text, and possibly an ASCII or pixel artwork in the background depicting the snail.
  - Settings
    - The settings menu follows a similar look with a black background and multiple options for the possible settings categories listed below.
- Game
  - Inside the game you have an old-fashioned 70s UI which is placed at the bottom of the screen and helps to display tooltips, information on collected resources, and other helpful information throughout the game. The inspiration for the look of this technology can be seen above.
  - Crafting Menu

Settings

- General
- Accessibility
- Graphics
- Sound

Crafting Menu

- The crafting menu can be accessed within the Oscilloscope.
- The crafting menu operates as a minigame where the player must "tune" to the correct crafting frequency to craft a new upgrade or material. There will be multiple recipes available on different frequencies and the player must choose one to craft.

MVP Systems and Features

- *Ship*
  - **Crafting**
    - The crafting mechanic is an essential part of the game; it allows the player to upgrade their utilities, allowing them to explore for longer, mine better ores, and unlock power-ups allowing them to progress throughout the game quickly.
  - **Charging**
    - The charging station is located inside the ship and requires the player to stand on it. Once the player does so, their power meter will begin to rise again.
- *Planet*
  - **Materials**
    - Materials are found on the planet and mined by the player. They can be used for crafting upgrades.
  - **Structures**
    - The Snail's Ship is a structure which can be explored. It is small and cosy and contains the crafter and charging station, as well as small visual decorations.
    - Ancient structures can be found around the map showing the existence of a previous civilisation. Only one structure can be opened and explored inside.
  - **Gravity**
    - The game's gravity is an essential component and ensures the player sticks to the planet's surface without falling off
  - Evil Creatures
    - Swipes down when Snail is exposed. Picks up snail and throws him
- *Snail*
  - **Mining Ability**
    - The player can mine materials which can be used for crafting. The player will also be able to use this ability to open a door at the end of the game.
  - **Crafting Ability**
    - The player can open the crafting menu and use it to make new items/upgrades.
  - **Movement Switching**
    - The player can switch from the snail mode into the shell mode.

- ○ **Moisture Meter**
  - The moisture meter ensures that the player has to enter their shell mode periodically when exploring the planet. This means they cannot stay in their snail mode forever and are forced to enter shell mode to better traverse the planet.
- ● *Shell*
  - ○ **Movement Switching**
    - The player can switch from the snail mode into the shell mode.
  - ○ **Power Meter**
    - The power meter ensures that the player has to periodically go back to the Ship to recharge. This gives the game an extra dynamic level to add risk to the exploration without being too harsh that breaks their immersion within the game.
    - The power meter is eventually circumvented by the end of the game as the player unlocks a solar power addon, meaning they can be powered forever.
- ● *Upgrades*
  - ○ **Charge Upgrades (3)**
    - Charge upgrades are gained via the crafting system and increase the longevity the player can go without needing to charge. The final upgrade in this category will allow the player to travel around the planet indefinitely.
  - ○ **Moisture Upgrades (3)**
    - Moisture upgrades are gained via the crafting system and increase the longevity the player can survival in the snail state without drying out.
  - ○ **Speed Upgrades (2)**
    - Speed upgrades are gained via the crafting system and allow the player to go faster around the planet. The player can control their speed using the scroll wheel or left and right shoulder pads.
  - ○ **Hardness Upgrades (3)**
    - Hardness upgrades are gained via the crafting system and allow the player to break harder materials on the planet's surface.

Game Objects

- *Snail*
  - The snail is the main and only protagonist of the game. He is our eyes and (ironically) ears of the game. All lived experience is told through the snail's antennae.
- *The Ship*
  - The ship is our home base for the game and is where we upgrade and recharge our Snail. It resembles a turned-over snail shell and cannot be entered once it is left. When inside, it maintains a fixed camera angle to allow for ease of use when the player is inside.
- *The Planet*
  - The planet is our newfound friend who is thoroughly explored throughout the game. It is circular and has its own gravity which the player sticks to. The planet will contain various materials which can be collected and used to upgrade the player.
- *Rocks*
  - The planet will be primarily composed of multiple types of rocks with the main visual consisting of sand (which at the north of the planet will be bluey/green). There will be troughs in the planet which will have a white rock salt which will make the player dry out quicker.
  - There will be a large variation in terrain on the planet, including peaks and troughs across the planet, as well as natural arches and stone bridges which the player can traverse.
- *Structures*
  - There will be a small collection of "man"-made structures throughout the game which will give a hint towards the planet's previous inhabitants; the largest of which will be the final structure the player encounters story-wise.
  - There will also consist of some crashed/buried spaceships from other travellers who failed to survive.

- *Materials*
  - Aluminium (**Bauxite**, Cryolite)(Charge, Hardness)
    - As aluminium is a conductive material, it allows the shell to be more energy efficient.
    - Due to its strength resistance, an aluminium drill should make drilling much easier.
      -
  - Magnesium (Dolomite (white, near water), **Carnallite**) (Speed, Moisture)
    - Due to its light weight, a replacement of magnesium on the shell allows the player to move faster.
    - Due to its heat resistance properties, a new magnesium interior helps the player conserve more moisture.


  - Tungsten (**Silexite**, Scheelite) (Moisture, Hardness) (Igneous Rocks)
    - As a strong resistant to heat, a tungsten lining will help to keep the Snail from getting warm.
    - Due to tungsten being a strong metal, a drill made of it will surely cut through harder minerals.

- ○ Cobalt (Serpentinite, Dunite) (Charge, Moisture)
  - ■ Stabilises the lithium-charged batteries
  - ■ Used to treat water in moisture reserves
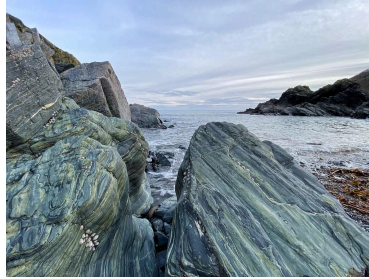
- ○ Boron (**Ulexite** (Evaporite deposits), Kernite (Large crystals)) (Charge, Speed)
  - ■ Used to construct solar plating, allowing for recharge on the go.
  - ■ Low friction allows for more speed.

- ○ Moissanite (Hardness)
  - ■ Found in a crater of a meteorite which is presumed to have wiped out the previous inhabitants.
  - ■ Due to its hardness, a moissanite tip should make drilling much easier.