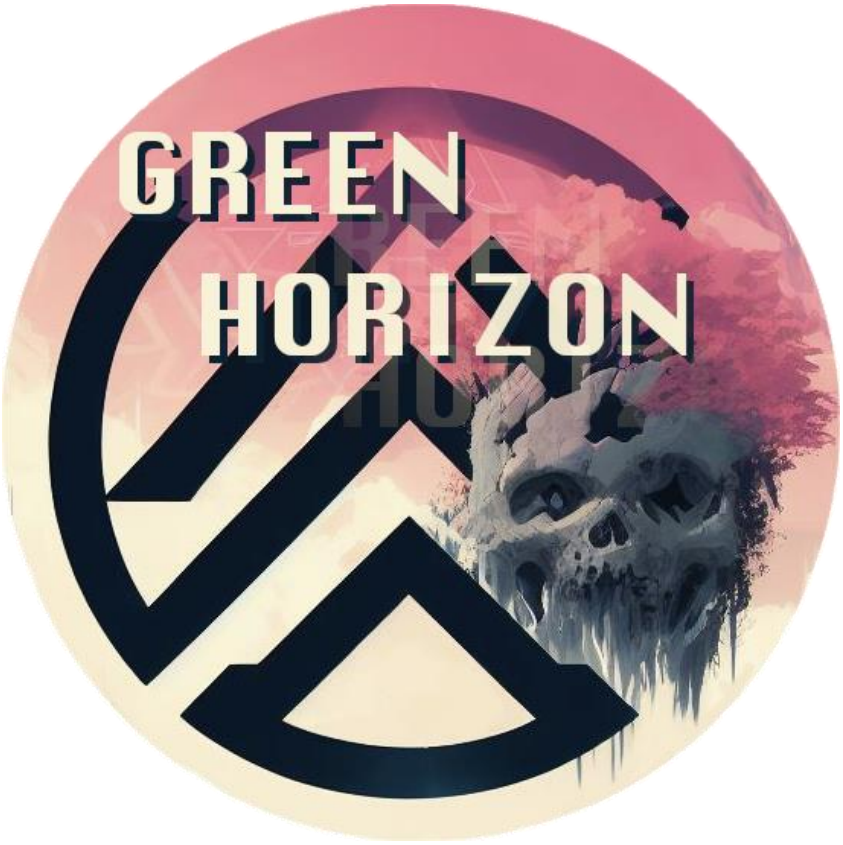

Green Horizon

D1. Scope document

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Overview of Concept

Green Horizon is a live-action role-playing 2d game, in which player becomes a robot-like machine that tries to take care of a plant in a dystopian world. The game will be available on Windows.

Green Horizon fits the theme because the surrounding aesthetic is a dark cavern overrun by ruins and darkness. In this wasteland the only ray of hope is the plant that the main character finds in the beginning of the game. We will try to create a challenging environment in the levels ahead, so that the player feels the plant's functionalities are necessary to overcome the levels and areas it finds itself in. The plant is also unique in the robot's world and has unique capabilities, leading to the moral of hope that the theme proposes.

Key features:

Main unique characteristic of "Green Horizon" is to overcome challenges in a dystopian world, emphasizing the importance using movement and resources in a correct and creative manner.

Description

Green Horizon is a live-action role-playing 2D game that combines elements of platformer and narrative-driven gameplay. The aesthetics of the game are dark and grim, creating a somewhat despairful atmosphere, with space in the end for beautiful moments to breathe some fresh air to the player and briefly show the hope intended in the gameplay. While the majority of the demo's gameplay will be in the dark and auspicious environment, by the end the player finds a lit up room with grass and plants, something he thought extinct.

As for the game: Humanity's once thriving cities now lie in ruins, and the robot finds itself in a desolate cavern. As the player, your mission is to retrieve and protect the Plant – the only ray of hope in this sad reality. The plant holds a valuable secret but it's vulnerable and needs to be retrieved to the surface. Your journey becomes a beacon of hope, at least for your existence. Player's main task is to take care of Plant and help get it to a better place. The plant's well-being is related to the progress in the story. The player controls a character who has the ability to run and jump, with the best 2d platformers rules in mind. These abilities are not just for exploration but also play a role in your interactions with the environment and potential threats. The plant then shows the capability of building bridges and allowing a dash in mid-air in one of eight directions, helping the player traverse the areas in the cavern and make its way through the game to the surface.

Technical Specification

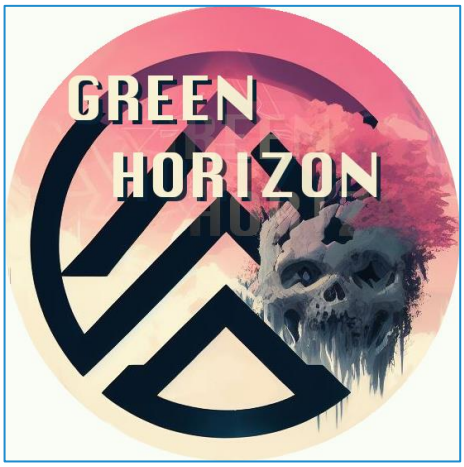
In order to develop the game, we will need Unity, as it is the Game Development Software that we chose. Apart from that, and as of now, hardware requirements are minimal. For the artificial intelligence needs we have implemented bots that are finding the way to the player every 0.5 seconds using the most optimal solution which is A* algorithm.

Keyboard and Mouse Support.

Target Platforms: Windows.

Concept art

Logo:



Main character:

Enemies:

Plant concept:

Game Controls:

- WASD and/or Arrow Keys to move the character (with implemented acceleration – player goes faster with time before he reaches the full speed);
- Spacebar to Jump (with implemented “Mario jump” - holding spacebar makes player go higher than just taping it);
- Shift to dash (either on ground or mid-air in one of eight directions – in order to use ability again player has to touch the ground);
- R and direction key (left or right) to create plant bridge on left and right (the bridge will disappear after a moment letting the player overcome the obstacle, but character still needs to be in a rush);
- P to restart from the last checkpoint.

Schedule and Deliverables

04/12/2023	D2.1. Game Design Document (version 0.x)
	D2.2. First Prototype
03/01/2024	D3.1. Game Design Document (version 1.0)
	D3.1. Final prototype

User Stories / Functional and non-functional requirements

First Prototype

User Story 1:

F:

- The player wants to be able to move the character.
- The game must allow the user to move the character when pressing the assigned (and aforementioned) keys.

User Story 2:

F:

- The player wants to respawn after dying.
- The game must allow the user to respawn and retry the area he failed.

NF:

- The transition should be seamless and should not impact the game's performance.

User Story 3:

F:

- The player wants to be able to build usable bridges and dash to overcome the challenge of the level.
- The game must allow the user to create such structures to progress.

NF:

- The bridges should be created in a dynamic way, and in the future should have limited usage. The dash should be responsive and smooth.

Final Prototype

Regarding User Story 2:

F:

- The player should be able to press a “Respawn” button in order to retry an area without intentionally dying.

Regarding User Story 3:

F:

- The creation of these types of terrain should have limited usage, tied to a time limit.

User Story 4:

F:

- The player wants to be able to respawn in the beginning of the current area, rather than at the very beginning of the game.
- The game should update its respawn location to the current area.

NF:

- This update should be dynamic in order to work in all current and future areas.
- The camera should complement this, by restricting itself to the current area.

User Story 5:

F:

- The game should offer optional objectives within the areas.
- These objectives are reached by solving the level in a different way or being found (when hidden).
- These optional objectives should provide some sort of possibility to the player, like added speed.

User Story 6:

F:

- The game should provide a chase sequence as its final level.
- An AI enemy pursues the player, who must navigate the areas and reach a safe spot, where the enemy can no longer proceed in its chase.

NF:

- The enemy’s AI component should not impact the game’s performance.

References

Schetinger, Victor, et al. "User stories as actives for game development." *Brazilian Symposium on Games and Digital Entertainment*. 2011.

https://assetstore.unity.com/packages/2d/characters/post-apocalypse-robots-227330

Inspirations: Hollow Knight, Celeste, Terraria, Fireboy and Watergirl, Metroid Dread, Rain World, LIMBO, INSIDE, Ender Lillies. WALL-E.