Dimension Rush

A Game Design Document

Developed by Andrew Tanti, Michela Mifsud (Code), Manuel Caruana, Julian Cini, Vivien Helter and Jacob Gauci (Game Assets and Level Design)

- Overview
    - Theme/Setting/Genre
    - Core Gameplay Mechanics Brief
    - Targeted platforms
    - Project Scope
    - Influences
    - The Elevator Pitch
- Story and Gameplay
    - Story
    - Gameplay
- Assets Needed
    - 2D
    - Sound
    - Animation
- Schedule

Overview

Theme / Setting / Genre

The genre of the game is a platformer and the setting is a futuristic, robotic world.

Core Gameplay Mechanics Brief

- Dimension Switching
- General player movement (run, jump)
- Asset Collection

Targeted platforms

The target device will be for PC and Mac, with a resolution of 1920 x 1080. The chosen input method will be through mouse and keyboard, however just the keyboard can be used.

Project Scope

Game Time Scale

Approximately one month.

Core Team

Julian Cini

- Character design and HUD.

Vivien Helter

- Design of Level One and all its accompanying assets

Jacob Gauci

- Design of Level Two and all its accompanying assets

Manuel Caruana

- Design of Level Three and all its accompanying assets

Andrew Tanti

- Coding (AI, Character Movement, Dimension Switching)

Michela Mifsud

- Coding (Item Pickup, Menus)

Influences

- Hollow Knight

- Digital Game

- Primary influence of how we wanted the game to feel; as well as how there is seemingly no backstory at first, only to have it be uncovered as the levels progressed.

- Love You to Bits

- Mobile Application (Game)

- Use of robots, ispiration for the character and as well as the element of gathering things throughout the level to advance to the next level.

The elevator Pitch

The dimensions in your world are shifting erratically and it's up to you to fix the switching device and return it back to normal.

Story and Gameplay

Story

A robot named KVN-418, known as Kevin, was working on a teleportation device on his ship. Suddenly the teleporter switched on by itself and transported Kevin into a different dimension. The device that Kevin had to control the dimension switching is broken and he has to find the pieces to return back home.

Gameplay (Brief)

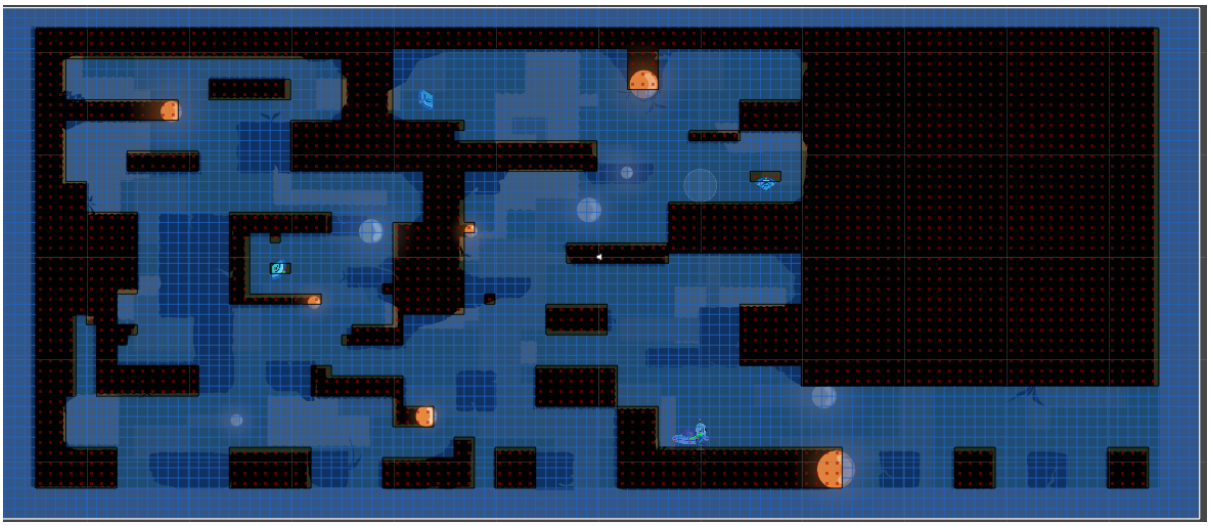
The main mechanic of the game will be the ability to switch dimensions. Platforms that exist in one dimension might not necessarily exist in the other dimension. The dimensions will switch ever few seconds, but the player will

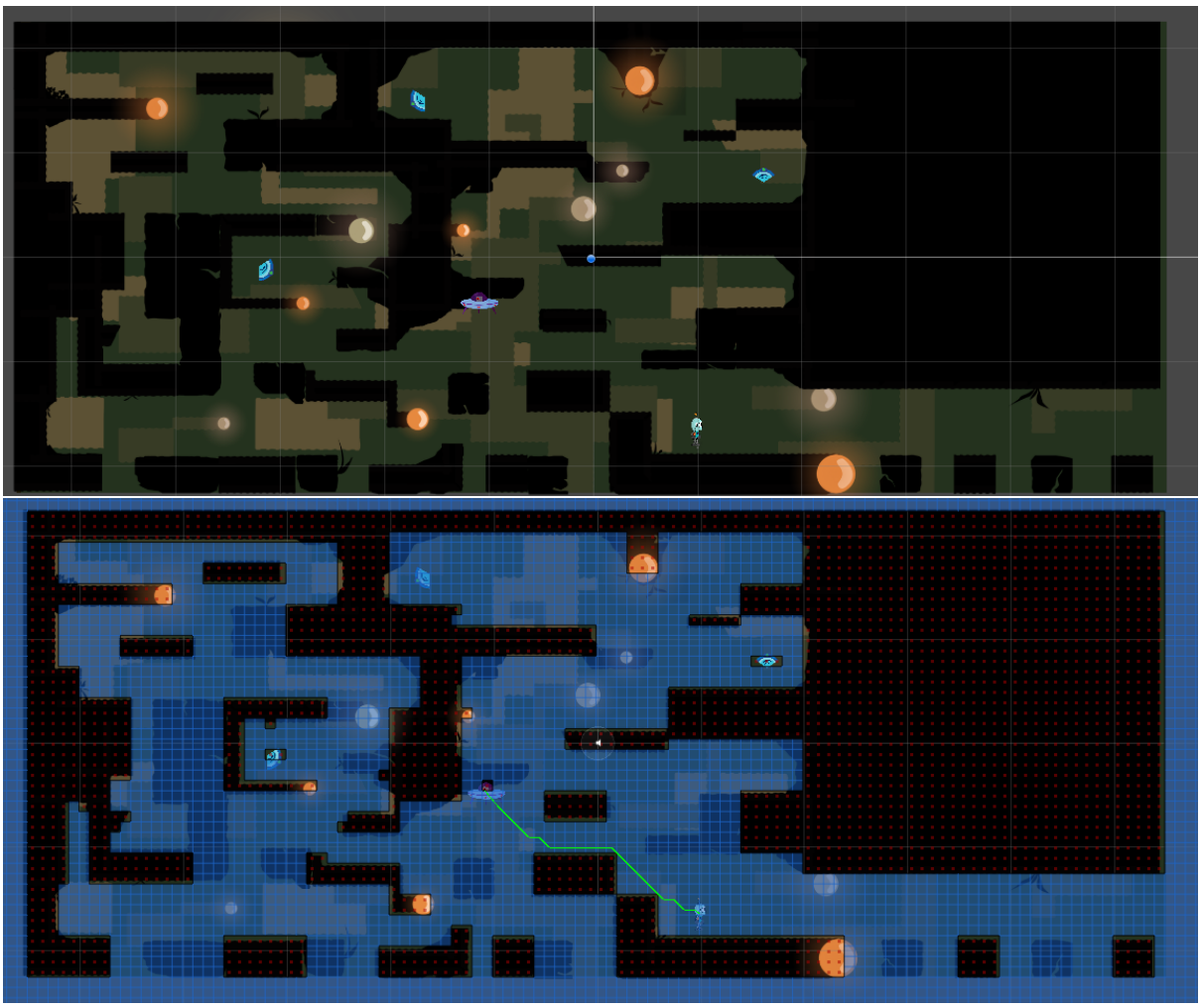
also be able to briefly switch dimensions, as well as hold the current dimension if they need some more time.

For movement, you can either use A & D, or use the left and right arrows to move left and right respectively. Pressing the spacebar will make the player jump, and the longer you hold down the spacebar, the higher the player will jump. You can then press either the left or right shift key to switch dimensions, and the left or right ctrl to hold the current dimension.

Artificial Intelligence

The artificial intelligence is mainly present in the enemies of the game; the UFO enemy has A* Pathfinding implemented on it, so that it would be able to search for the character when it is in its vicinity and chase the character. The only way the character can fully evade the UFO is by switching dimensions, because it isn't in the alternate dimension.





Meanwhile, the ant enemy has a patrol AI; it follows a certain path on the platform, always searching for the character and if it comes in its vicinity, the ant will stop and start throwing axes at the character. The character's job is to evade them by either switching dimensions or by jumping at the right time.

Assets Needed

- Character
- Enemies
- Level Designs
- Platforms

- Sound

- Sound List (Ambient)

- Music for start of game
- Music for different levels

- Sound List (Player)
    - Character Movement Sound List
        - Collision with ground
        - Picking up item

- Animation

- Character Animations
    - Player
        - Run
        - Jump
        - Death
    - Enemies
        - Patrol
        - Axe Throw
        - Hover

Schedule

The development of the game will be done over the course of a month. using an Iterative development model. The first week will be dedicated to forming the basic gameplay loop and having the main mechanic functional. The second week will be dedicated to the development of the AI and the Inventory system that will track what items the player has picked up.

The third week will be dedicated to placing the assets given by the art team into Unity, adding some extra touches in order to make the character feel more alive, such as sound and camera movement when he moves.

The final week will be dedicated to bug fixing and general tweaking of the mechanics to make the game as polished as possible. If time permits, some

more elements of polish will be added, such as hidden items, and a scoring system.