

Project Specification

Sunsinger Mechanical Alpha

Class: Senior Project– Fall 2016

Instructor: Dr. Baliga

Prepared by: Michael Marinaro, Eliakah Kakou, Patrick Mayo, Roberto Gonzalez, Joshua Yoon

Project Summary

This project is an alpha demonstration of a 2D video game concept, currently titled '*The Sunsinger*'. This demonstration will be the first implementation of the game prioritizing the core gameplay mechanics. This project will be implemented using a free version of GameMaker Studio. The goal is to have a playable level implemented by the end of the semester that features all the core mechanics of the game.

Project Goals

The main goal of this project is to implement the core game mechanics and make these mechanics as smooth and polished as possible. These mechanics include the following:

- Player Movement and Physics
- Combat System
- Item System
- User Interface

On top of these goals, less emphasis will be placed on art, story elements, and game stages/design.

Product Features

Features that we wish to present in the final version of the alpha will center around the level design, physics, combat system, inventory/item system, and user interface. These features are detailed below:

Single Level Design:

- Obstacle course

- Enemies
- Items

Physics:

- Movement Mechanics
- Walking, Running, Jumping, Wall jump
- Gravity

Combat System:

- Damage Calculations
- Ground Attacks, Aerial Attacks
- Health
- Hitboxes

Inventory/Item System:

- Item Pickup/Drop
- Item use

User Interface:

- Health Display
- Title Screen
- Pause Screen

Any Limitations

This version of the game is an alpha, it is NOT a fully complete game. It will feature no more than 10 minutes of gameplay. The sole purpose of this project is to display and polish the core mechanics of the game, thus there is no story element. The user will not be able to save progress. There will be no NPCs. This game is singleplayer only, thus it will not feature multiplayer modes.