Programming with Game Engine

Assignment 1

Proposal

Team members:

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Game Title: Teleportals

Game Genre: 2D Puzzle Platformer

Game Engine: Cocos2d-x,

Reason: Since we will be using this engine, it will be easier to get used to rather than learning 2 engines at the same timeframe. It’s also programming based, so it’s more easier to make functions we wanted.

Game Story: You are a lab rat (not literally) with a gun that can create tele-portals, to go through the scientist’s levels.

Gameplay:

Players takes control of a character that can jump and move around as well as being able to create portals.

A total of two portals at a time can be created, character interacting with the portal will be teleport to the other portal, if it exists.

Players can reposition each portal to different positions.

Players are to maneuver the character to reach a specific destination.

Obstacles will be in place, such as traps and moving or stationary enemy.

Game Mechanics:

Simple Physics

Portal mechanic

Variety of enemies, chasing enemies or range-attack enemies, different AI

Variety of traps, spike traps, death pit, lasers

Game Design:

Portal Creation

Create portals by firing the portal projectile onto tiles

Portals can only be created on specific tile

Touching the portals with the entity will teleport the entity to the other existing portal

Puzzle-based Level Design

A platformer game that has puzzle elements

Examples:

Button to Door puzzles (certain buttons may open or close certain doors),

Cubes to press and hold the Buuttons,

Physic utilization (movement propelling),

Portal Usage (getting to unreachable areas with portal),

Traps and Enemies

A variety of traps and enemies

Examples:

Spike traps then kills the players

Lasers that can be deactivated or lasers that can be redirected with portals

Enemies that chases the character or other entity

Enemies that move in a given path

Moving Wall with Spikes (left to right, vice versa) to crush the player

Milestone:

Week 3: Framework

Week 4: Framework / Render

Week 5: HUD/ controls / Gameplay: Portals

Week 6: Gameplay: Portals

Week 7: Gameplay: Physics

Week 8: Gameplay: buttons and doors

Week 9: Gameplay: Traps / Gameplay: Enemies

Week 10: Gameplay: Traps / Gameplay: Enemies

Week 11: Level Creation

Week 12: Level Creation

Week 13: social feature / Menus

Week 14: Menus

Week 15: Final

Week 16: Final

Week 17: Final

Task list:

Isaac: physics / Traps / collisions / buttons / door / audio / coins / level transition / splash screen

Andrew: controls / file loader / touch / projectiles / portal gun / base class / clean up

Wei Qi: rendering / HUD / portals / enemies / animation