Ryan Schmitt
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Preliminary Project Proposal

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Game-play Description:
The player takes the role of a super human geneticist. During his research in granting super human abilities to soldiers, an explosion destroyed his lab. In this explosion, the geneticist is infected with in unstable and deadly strain of the super human virus. In order to survive as the virus infects more and more of his body (represented visually with a meter that empties over time), he must race against time and collect the cure to the virus, which takes the form of a super orb. Unfortunately, the lab explosion launched the super orb on top of the tallest building in the city. In order to collect the super orb, the player must upgrade the geneticist's speed and jump height by collecting the minor orbs (which also fill the viral infection meter) scattered around the city.

Goal:
Collect the super orb before the virus kills the player.

Core Mechanic:
Collecting minor orbs by running and jumping around the city.

Rules:

- The viral infection meter empties over time (ratio yet to be determined).
- Player dies if viral infection meter empties.
- Minor orbs incrementally increase speed and jump height, and fill the viral infection meter.
- The super orb cures the player.

Environment:

The basis for the environment is a city, similar to New York, with buildings that vary in height from skyscraper to single story warehouse. The environment will look like a square divided into quadrants from a top-down view; each quadrant will represent a section of the level, ranging from beginning area, with small buildings, to the final area, with skyscrapers. The purpose for this division is to block access to certain areas of the level until the player has upgraded his jump height and speed sufficiently. The terrain will be a flat plane, with streets, trees, newsstands, and streetlights filling the gap between the buildings. Jump pads will also abound to help the character along his way.

Characters:

The only character in the game is the geneticist. This will simplify the animation and character modeling process, allowing us to focus on the other graphics technologies. He will be wearing a skin tight super bio-suit; by foregoing a lab coat we can ignore cloth physics and still have high quality visuals.

Animations:

The animations will supplement the combined actions of running, jumping, and falling. Because there is only one character the animations will be limited to the aforementioned actions.

Special Effects:

- Pixel shading the orbs.
- Cel-shading the world.
- Particle effects for clouds and dust (after falling).

One Cool Thing:

Our game is going to be fun. We will focus on the game play and physics mechanics of running, jumping, and falling in order to perfect these actions. These mechanics will be used in puzzles throughout the environment to achieve the main goal of retrieving the super orb.

Responsibility Breakdown:

Physics/Collisions - Ryan

Puzzle Elements (includes jump pads and other elements a player interacts with) - Adam
Sound – Daniel Medina
Graphics/Optimization - Ian
Graphics/Shaders – Dan White
Particle Effects - Paola
Animation – Greg

Completion Breakdown:

Milestone 1- Basic game implementation. At this point we want to have the general gameplay elements finished so we can start iterative development and refinement of the game. This would include basic orb collection and implementations of the jump and run skills that will be core to our game.

Milestone 2- The first iteration of the actual game level should be in the game. At this point we would like to have at least one of the small puzzle or obstacles you encounter implemented (such as jump pads). The first shaders should make their appearance as well as basic sound and animation.

Milestone 3- The game level will be further tweaked at this point. Additional obstacles and puzzles will be implemented and added to the level as well. At this point some of the rendering optimizations should be added and tweaked. Particle effects will be added to the different areas of the game such as dust from landing or clouds that populate the skies.

Milestone 4- Assets will be finalized at this point. All of the major game systems should be implemented to leave time for tweaking and bug fixes.