Gauntlet Run

Pragadeeshwar Dakshinamurthi Joshua Bornstein
Patrick Negus

October 25, 2023

1 Game description

This is a puzzle/memory game, where the player controls an avatar which they need to guide along a path to the end zone. The path is visible for a certain amount of time before it disappears, after which the player needs to use their memory to finish the level. The player is given a few mechanics (such as a boost) at their disposal which helps them traverse quickly but at the same time requiring more precise inputs.

The educational component here is the memory aspect; we also intend for this game to require precise timing and inputs. The target audience is to be players of all ages. Finally, we intend to use Unity for this project.

1.1 Details

- We want to teach visual memory skills here, as well as challenging the player to innovate when it comes to traversing the levels. We don't intend for every level in our game to be beaten via the "direct path" to the exist, though the player is absolutely welcome to do so.
- At the begining of the level, a path of connected squares leading from the start to the finish square will light up. Then those lights will disappear and the user will attempt to walk they're player charcter along the pass to the finish. If they step off the indicated path, the square or area of terrain will briefly light up red and they will be transported back to the start square, where the path indicator lights will flash again. When the player reaches the end goal it will briefly light up green and the player will be transported to the start of the next level.

The primary game mechanics involve movement. At its core level the character can roll itself along the flat sections of the level. However, we intend to implement mechanics such as jumping, wall collisions, and boosting. Furthermore, the user will encounter various obstacles they will need to surpass. One of these will be an AI-turret which will attempt to hit the user, similar to the ones implemented in Assignment 3.

- We intend to use keyframing and physics-based animations. The latter will be used for character animations, ie. player abilities or "hit-by-turret-projectile" animatinos. The former will be for general movement like jumps, collisions, rolling.

- Our UI will be built for desktop PC first, and likely given the general simplicity of our core game mechanics it can be extended to work on mobile. There will be a main menu (level select) and a pause menu with various options. We will add sound effects, and we intend to have at least some rudimentary music.

2 Split of the work

Our team has 3 members, Pragadeeshwar, Patrick, and Joshua.

- Pragadeeshwar is going to focus on the design of the world and the characters, items, animations in it.

- Josh is going to focus on writing the scripts that control the gameflow, and implementing auto-level-generation

- Patrick is going to focus on building the UI, extending gameplay features + animations, and configure scene views.

All group members contribute ideas about level design and general gameplay. This breakdown is also very general with respect to how work will actually be distributed.