

Milestone 3 - Advanced Game

Overview:

In this milestone, we progressed toward an advanced multilevel game. In this milestone, we improved the enemies' AI, implemented animation, level design, and so on.

Implementation:

1 - Playability

- Implemented 4 levels, the player has to defeat about 7 enemies first, then progress to a boss fight. It will take the player about 5 minutes to keep trying to finish all levels.

2 - Robustness

- Memory management has been done properly so there is no memory leak after even after extended playtime.
- Our game is able to handle any user input so that unexpected inputs will not cause a crash in the game.
- The gameplay is real-time (no-lag).

3 - Stability

- Include prior milestone implementation and fix all bugs identified.
- Our game behaves consistently across different platforms and screens.
- Our game supports continuing execution and graceful termination.

4 - Reloadability

- The player can save the game at each level and reload the same level after exiting the game.

5 - Physics-Based Animation

- Projectiles possess non-trivial physics properties so that they collide with each other.

6 - Complex Prescribed Motion

- Our character dashes animation use geometric splines so that when the character dashes, a curve animation of the character's body will occur, distorting him according to the direction he dashes to.