The Grand Finale: Stealthy Sam

CPSC 436D - Video Game Programming

Spring 2018/19

Team Members:

Caroline Chang   20044146   d6g0b
Sam Chow   27453142   i6x9a
Mah-dir Sheikh   36718154   p4u0b
Sam Veloso   33140154   m6o0b
Sam Goldwax   13433157   u9k0b
Nicolas Gagnon   26528142   l4f0b

<u>Milestone Requirements:</u>

Development: All features implemented in the previous milestones should be working, or improved upon if it's the case.

- All features from previous milestones have been implemented and enhanced upon for this milestone.

Robustness: Sustain progressive, non-repetitive gameplay across one or more levels for 10min including all new features. No verbal explanation should be required at any point during the gameplay.

- New tutorial level implemented with instructions on how to play the game.
- Additional UI text components to clarify objectives and enhance the rogue like theme.
- Game consist of four levels interspaced with puzzles, collectibles and enemies. The fourth room is a boss room where the player will have to use their wit and dexterity to release the cursed ghosts and defeat the final boss

Usability: Include a self-explanatory tutorial introducing the player to the game mechanics.

- New tutorial level implemented with all the necessary features to understand the game mechanic. Purposely done in full light in order to allow the player to see what all the sprites look like. Scrollable text explaining all game mechanics and tips.

External Integration: Include integration of one or more external tools or libraries

(physical simulation (PhysX, Bullet, ODE, etc …), game engines, or alternatives)

- BulletPhysics has been included to the project to simulate and detect physics collisions for boss missiles bouncing off of walls and pillars.

Advanced Graphics: Implementation of one or more advanced graphics features including visual effects (Particle Systems, 2.5D(3D) lighting, 2D dynamic shadows) and/or advanced 2D geometric modifications (2D deformations, rigged/skinned motion).

- Improved the light shader: fix occlusion artifact that occurs when two torch light is nearby each other
- Particle system- smoke particle effect for the fire torch

Advanced Gameplay: Implementation of one or more advanced gameplay features including advanced decision making mechanisms based on goals (path planning, A*, or similar), or some form of group behavior if applicable to the game; more complex physic interactions with the environment (e.g. gravity, bouncing, complex dynamics).

- Missiles from boss bounce off of walls at correct angles through BulletPhysics simulation, and disappear after a few bounces.
- Enemy view cone collision- now enemy notice player when its view cone collides with player

Accessibility: evaluate and optimizing user-game interactions (choice of user gestures, ease of navigation, etc …).

- Enemy cone color changes when it notice and is chasing the player, which alerts the player visually that they are currently being chased by one (or more) enemy.
- Added time based instructions to help the player understand their objective
- Added UI system that allows player to access UI elements better

Audio: There should be audio feedback for all meaningful interactions in the game as well as a background music with tones reflecting the current state of the game.
- Sound effects for:
  - Ghost noticing player
  - Picking up/throwing a torch
  - Lighting a cauldron
  - Torch "dying"
  - Going in and out of closets
  - Switching menu screens/choosing menu options
- Change in background music when player dies. (implemented in previous milestone)

Your submission should align with your proposed development plan: Provide a write-up explaining how your milestone aligns with the plan. Explain all discrepancies.

In our original plan, we had these features planned for completion for this milestone:

Week: April 19th - **Grande Finale**

- World shader
  - We have this implemented, and our character successfully travels with and takes a hole in the world shader with him, provided he has a torch, torches and cauldrons penetrate the world shader. Enemy vision cones also appear in the shader.
- Start implementation on interactables
  - We have currently keys implemented, closets you can hide in, and torches you can use for interactables.
- Level layout
  - We have all four rooms created that we proposed.
  - We have implemented puzzles pieces and enemies in each of the rooms.
- Gameplay
  - Enemies follow a decision tree allowing for players to strategically use torches to distract enemies.

We made all of our major goals for the grand finale milestone.