

Reflex

Team Members and Roles:

Richard Ohata (Programmer & Documentation)

Github Repo:

<https://github.com/RichardOhata/COMP-8552-Project>

Itch.io:

<https://orange8846.itch.io/reflex>

Engine design:

The game engine will be developed with C++ using CLion and will follow the entity-component-system (ECS) architecture.

Map and level design will be implemented using Tiled.

Lecture material will be used as base and built upon, including the code, and the engine will be in 2D and utilize SDL3.

Built Upon/New Systems:

- Movement System
- Render System
- Sawblade Movement System
- Animation System
- Parry System
- UI Render System
- Homing System
- Collision System
- ColliderDebug System
- HUD System
- Lifetime System
- Homing System
- Spawn Timer System

- PreRender System

Additionally, there will be more added components in component.h

Level Design & Asset Pipeline

Level design entities are loaded in dynamically using custom Tiled Maps which include:

- Player Start Position
- Colliders
- Coin Spawns
- Bullet/Projectile Spawners
- Goal Detection

Sawblade and Bullet configurations will be loaded in with external JSON files.

Game design:

Game is called Reflex

2-D platformer where the goal of you as the player is to get to the exit and collect all the coins on a level, while trying to avoid obstacles and reflecting projectiles. The gameplay emphasizes timing, precision, and mastery, inspired by *The World's Hardest Game*.

High Level Features include sounds (BGM), single player, and will be supported on PC.

The narrative of the game is that you as the player are a cube who is trying to escape a labyrinth all while trying to collect coins.

Art and audio assets will be provided through online sources such as [Itch.io](https://itch.io) or similar websites.

Features:

- Parry Mechanic
- Precise Movement
- One Hit Death System
- Multi Stage Level Design

Tools and Risks:

Tools that will be used are CLion and Tiled.

Possible Risks that could be involved in the project is lack of content due to the small time frame as well as other course work taking time out of working on the project.