

4300 Project Proposal

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For our project, we will be creating a top-down adventure/shooter style game. The player must navigate through a series of three levels while defeating enemies, avoiding obstacles, and solving puzzles. The primary controls will use WASD for movement and the mouse for aiming and firing; additional controls, such as weapon switching, will be implemented through keyboard commands. Each level will have its own boss fight, and the player will be able to access the three levels in any order; upon completing all three, they will gain access to a final standalone boss fight.

Examples of gameplay scenarios:

1. Collisions – The player attempts to walk through the boundary wall of a level and collides with it.
2. Bullets/Weapons – The player finds a shotgun item in a level that they pick up, and can subsequently equip by pressing a designated key.
3. NPCs – The player encounters an AI-controlled enemy that chases after them.
4. Moving Tiles – The player finds a series of spike blocks moving in various patterns that they must evade to progress through the level.
5. HP/Damage – The player is hit by an enemy repeatedly, taking damage each time until their health reaches 0 and they respawn at the beginning of the level.

6. Objects/Inventory – The player finds a key that is used to unlock a door elsewhere in the level.
7. Ray Casting – The player encounters a static turret enemy that begins firing at them when they enter its line of sight.
8. Gravity/Acceleration – The player fights a boss who periodically spawns magnetic fields that pull the player toward them.
9. Steering – The player fights a boss who fires homing missiles that steer toward the player.

Extra features:

1. Reloading – Each weapon will have a fixed magazine size. The player will be able to optionally reload by pressing R, or automatically reload at 0 bullets.
2. Dashing/Teleportation – The player will have access to some form of short-range mobility tool, and will be able to travel longer distances by passing through certain doors that are linked to another area of the level.
3. Slow Motion – The player has a special ability that slows down time for all entities other than itself, and its bullets.
4. Ricochet – The player has a type of weapon that can fire bullets that bounce off walls as opposed to being destroyed on their first impact.
5. Stealth – The player can enter certain tiles that block raycasts but not movement, so they can hide from enemy detection.
6. Explosions – Some weapons cause damage to anything caught in their area of effect.