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# Final Project – Deliverable 1: Game Plan

# Name:

Ricochet

# Genre:

Platformer (w/ potential shooter mechanics)

# Setting:

Neon virtual world, futuristic, abstract/geometric (Think Tron, Bladerunner, Cyberpunk, or Hotline Miami)

# Lore:

Our hero, GUNNR-2, is setting out to alter the chain of events that led to his timeline’s demise. However, the process of time travel is inherently unstable, and many artifacts threaten to derail him. He must remain grounded until the connection is complete, lest he fall and be lost to spacetime forever!

# Sources of Inspiration:

* Pong (1972)
* Vortex (2006) (iPod Nano game)
* Space Invaders (1978) (Particularly with respect to its destructible bunkers)

Game Overview:

Shape

Description automatically generated with low confidence

The player’s objective is to protect the platforms that they’re standing atop from taking damage (caused by collisions with enemies bouncing around the level) so that they don’t fall to the bottom. The player advances if they’ve managed to survive up to a time limit. Once the final stage is cleared, they win.

# Features Include:

1. Enemies that bounce off of the walls of the level indefinitely. They will spawn periodically, though a limit will likely be in place for how many can exist at any given time. Collisions of various types may / may not damage them (whether this applies to collisions amongst themselves, the walls of the level, or just the player’s rebound mechanic is currently undecided).
2. A means for the player to repel enemies away from the platforms. Initial plans were to have a shield which deflects enemies, but this may change to projectiles that the player fires (w/ behavior akin to billiards) depending on game balance. Both may even be incorporated to satisfy the requirement for a progression mechanic. Either way, this aspect will be controlled by the player via the mouse.
3. Platforms that are destructible. They should have health bars to indicate how close they are to being destroyed. Enemies will inflict damage upon platforms when they collide with them. In turn, this may / may not destroy the enemy (depending on what’s deemed satisfactory).
4. Player movement that is controlled using WASD. The player will be capable of jumping from one platform to another by pressing the spacebar. Gravity will be enabled for the player, but not for enemies or platforms.
5. A countdown timer to show the player’s current progress. The game will advance to the next stage after it has elapsed. If the player falls to the bottom of the level before it reaches 0, the player loses the game, and the current stage must be repeated.
6. A score for the player should be shown onscreen. When enemies are destroyed, its value will increase. This carries over between levels, fulfilling the requirement for persistent game data.
7. Enemies will have a trail effect and come in different varieties. Prefab variants may have their own speed/size/health values.
8. Ideally, some effects (e.g., an impact explosion, sound effect, etc.) should materialize when an enemy collides with the environment (especially platforms). Something like a crumble animation would be nice for whenever an enemy / platform gets destroyed (as opposed to the latter suddenly disappearing beneath the player’s feet). Another possibility is to have sound effects for jumping.
9. The character that the player controls could potentially have its own health. However, it might also be fine to keep health relegated to just platforms and enemies. This is subject to testing and time constraints.
10. Some randomly spawning pickups (e.g., coins) might further incentivize the player to move around the map, but this may prove unnecessary (especially if the player progression mechanic is itself implemented as a pickup).

Note: This project is being developed solo.