



Trash Pick-Up Simulator

A Post-Mortem Presentation

A crumpled white paper ball is centered on a black background. Two white diagonal stripes run from the top-right and bottom-left corners towards the center. The text "Design Debrief" is overlaid on the paper ball in a white, outlined, sans-serif font.

Design Debrief

Achieving our Design Objectives:

Design Objective: Environmental proactivity: to spur environmental awareness of the harmful effects of garbage left lying around. This was not meant to encourage the player to “save the world” so much as it was meant to “nudge” the player to pick up any trash they see in real life (like a small invasive memory of the game pushing them to throw things away).

How we Achieved our Design Objective:


- A rapidly changing environment that gets “uglier” over time
- Pleasant at first, cluttered as time goes on
- Foreboding “instability bar” that constantly creeps up toward the max



Intended Experience:

- Frantic stress due to trying to keep up with trash spawns
- Relief from the successful “scoring” of throwing trash into the bin (missing wastes time)
- Pride from a completed trash run
- Frustration from missing shots/wasting time
- Desire to pick up trash
- Desire to not litter



A crumpled white paper ball is centered on a black background. Two white diagonal stripes run from the top-right and bottom-left corners towards the center. The word "Issues" is written in a white, outlined, serif font across the middle of the crumpled paper.

Issues

Issue 1: Input Lag

- **Priority:** 3
- **Description:** Some players had some input lag and it was hard to control mouse sensitivity
- **Evidence:** Players stated this issue out loud and the issue was visible while watching player engage in the game
- **Action Items:** Add a mouse sensitivity slider



Before:



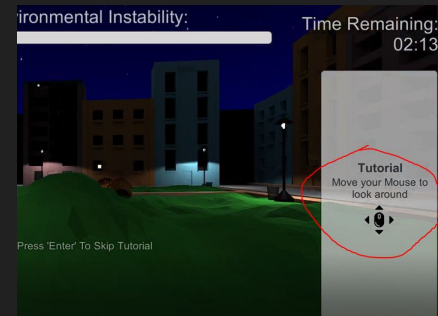
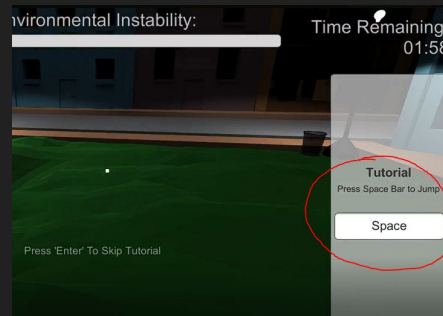
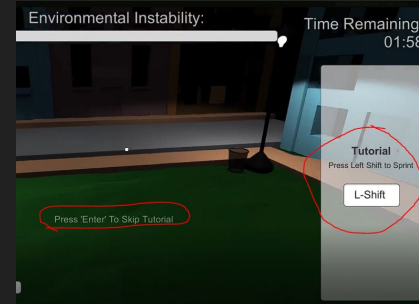
After:

Issue 2: Buggy Tutorial

- **Priority:** 2
- **Description** Tutorial was missing some controls and repeated after every game
- **Evidence** Tutorial restarted once the level restarted
- **Action Items:** Created a new skippable tutorial scene



Before:



After:

Issue 3: Can't Pause The Game

- **Priority:** 2
- **Description:** The game can not be paused.
- **Evidence:** Player asked if the game could be paused and it could not be
- **Action Items:** Add pause menu



Before:

Nothing happened
upon pressing escape



After:

Escape now pulls up
options and freezes
time

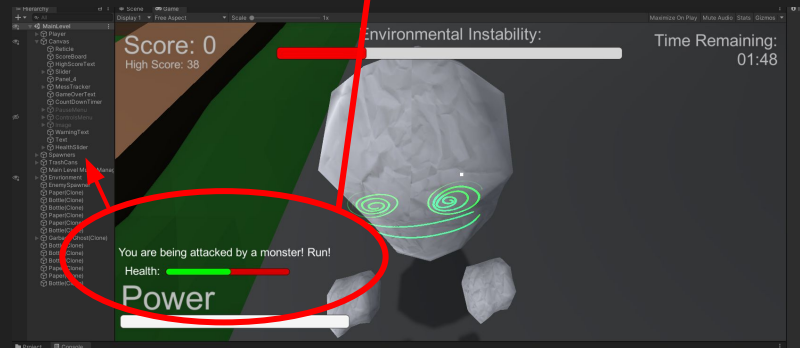
Issue 3.5: Difficulty Balancing

- **Priority:** 2
- **Description:** The game was a little difficult because of the silent, insta-kill “ninja” monsters
- **Evidence:** Professor mentioned that the monsters frequently snuck up on the player
- **Action Items:** Add health bar to tick down so the player can be made aware that they are being attacked

Implemented health system with sufficient warning for possible evasion



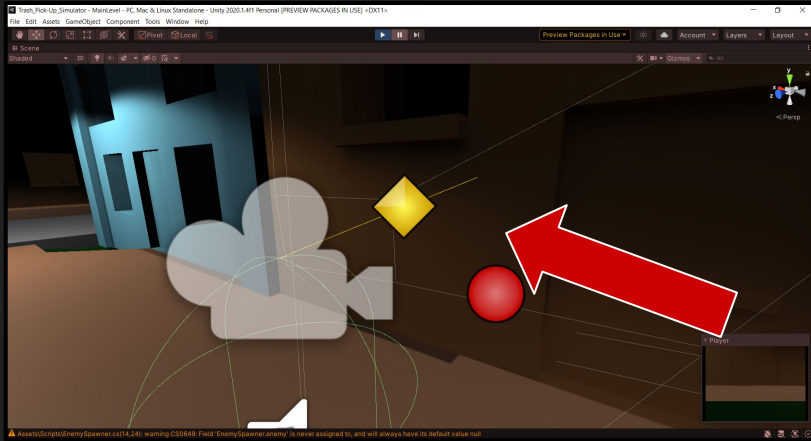
Before: Trash ghosts resulted in instant death, hard to predict, “jumpscare”



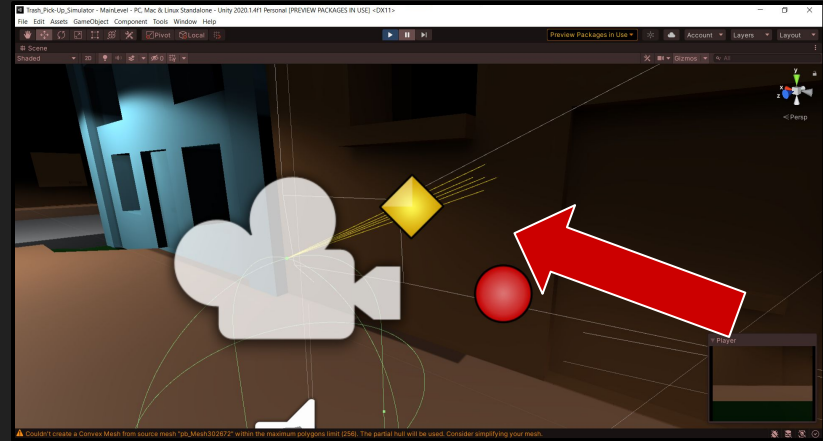
After:

Issue 4: Hard to Pick Up Objects

- **Priority:** 1
- **Description:** Objects are difficult to pick up; requiring the player to look directly at an object and be close enough to pickup.
- **Evidence:** Players vocally complained that they were unable to pick up objects smoothly
- **Action Items:** Expand pickup range and use a cone instead of a direct raycast



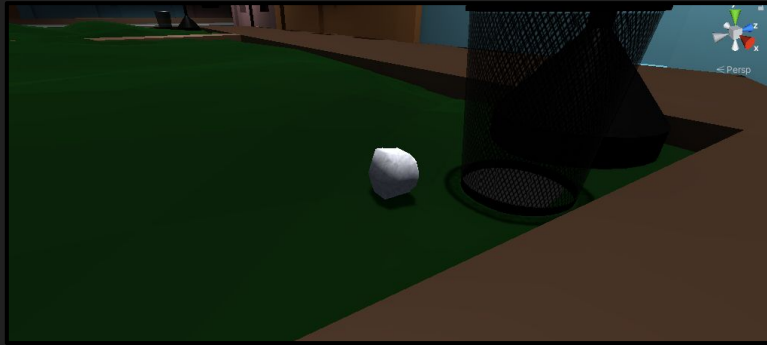
Before:



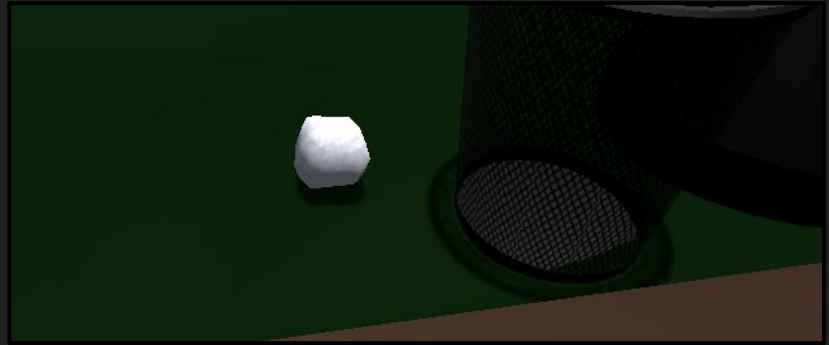
After:

Issue 5: Paper Object Looks Like a Rock

- **Priority:** 5
- **Description:** Paper object is too gray and looks like a rock
- **Evidence:** Players passed over the paper object more frequently and often said “Oh, I can pick that up? I thought it was a rock.”
- **Action Items:** Make object white to look more like paper



Before:



After:

A crumpled piece of white paper is centered on a black background. The paper is heavily folded and creased, giving it a textured appearance. In the top right and bottom left corners, there are white diagonal stripes.

Lessons Learned

What Went Well:

- Successful First Person Player Controller
- Satisfying Pickup and Throw Mechanics
- Interesting Environment (Despite lack of artists)
- Effective Tutorial
- Informational UI
- Smart Enemy Pathfinding



What To Do Differently Next Time:

- More Clear way to define and organize tasks (Trello)
- Add more depth to gameplay
- More consistent communication
- Continue to familiarize ourselves with the software



Most Valuable Lesson Learned:

Communication is KEY!

- Stay organized to avoid merge conflicts
- Keep each other updated to know when new tasks are available
- Communication facilitates creativity



How We Will Develop Differently in the Future:

- Possibly use a task organization tool like Trello
- Strive for a higher goal
- Be more aware of surprisingly difficult tasks:
 - UI & Menus
 - AI Behavior
 - Dealing with Unity's Physics Engine
 - Managing Playtesting Feedback



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Questions?