

Scrap Reaper

DESIGN DOCUMENT

By Rionit for the 2025 Pirate Software Game Jam #16

Introduction

Summary

A game where you play as a scrap handler in a car junkyard and you rip cars apart and sort the parts by materials.

Inspiration

Literally just [this video](#) from Instagram I saw the other day.

Player Experience

The player controls the claw of a scrap handler and tries to rip and sort parts of the car as fast as they can because there is a time countdown. The player can take the game's environment, bugs and features to their advantage. It is encouraged to try again and get better.

Platform

The game is developed to be released on itch.io as a web game.

Development Software

- Godot 4.3 for programming
- Blender for 3D modeling
- Audacity for editing SFX

Genre

Singleplayer, simulator, physics

Target Audience

Very simple mechanics and controls it is suitable for casual gamers but also for speedrunners who might try to stay as long as possible. The game can be played with just one hand making it for an even broader audience.

Concept

Gameplay overview



The player controls a claw machine and can move it in the 3D space up, down, left, right, forwards and backwards. They can also rotate the claw and pinch or release it to grab or release a car part. The player must deduct in which trash dumpster the car part must be thrown. When the majority of the car has been sorted a new one is spawned.




Theme interpretation (You Are The Weapon)

“Weapon - A thing designed or used for inflicting bodily harm or physical damage.”

Therefore you are a claw machine, a thing designed and used to inflict physical damage to vehicles. As a bonus you are eco friendly and sort trash, therefore harming global warming itself.

Primary Mechanics

Mechanic	Animated Preview
<u>Movement</u> Player can move the claw in three degrees of freedom. forward, backward left, right up, down	
<u>Pinching</u> Player can pinch/grab a car part and rip it apart, which then sticks to the claw until it is released again. If they pinch the body of the car, it moves the whole car.	

Mechanic	Animated Preview
<p><u>Rotating</u></p> <p>The player can rotate a pinched car part. For flipping the car it is encouraged to push/glitch the car out of bounds ;).</p>	
<p><u>Collisions</u></p> <p>The player's claw can collide with other objects. Useful for moving stuff around.</p>	
<p><u>Sorting</u></p> <p>The player has to sort the car part in the corresponding trash dumpster. Correct sorting gives the player 100 second bonus whereas wrong one takes 10 seconds off.</p>	

Art

Design

Since the player is stationary I could use this fact to have a dome shaped environment. For this I looked at 360 panoramas on the internet and found this location on google street view. I have then taken screenshots and created the panorama picture. I used this as an emissive texture for a dome in Blender and exported it to Godot.

The original video had a very low quality, therefore I opted for PS1 style graphics. My textures are low res and I used PSX shaders for my objects. Majority of the textures are

ripped straight from the instagram reel. I also like the aesthetic of damaged cars in older games so I achieved this in Blender and Godot using Shape Keys.

Audio

Music

My initial idea was to have layered music, which gets more and more layered and faster by the factor of how much time is left. Since I was alone for this game jam I did not have time to fully implement this. Therefore I left only one layer with a drum loop. Full implementation would add to immersion and intensify the experience.

Sfx

What is a simulator without realistic sound effects? Well it's a boring simulator. Therefore I added a lot of sounds to the movement of the machine as well as some collision sounds and noise of trash falling in a dumpster. Each has its own distinctive one. All the sounds have a low bandpass to simulate "sounding like they are outside of the player's cabin".

Game Experience

UI

Only a timer showing the time left or how much time was added.

Controls

(Basically like Minecraft in Creative mode while flying)

WASD - move claw forwards, backwards, left and right

SPACEBAR/SHIFT - move claw up or down

Q/E - rotate claw

F - pinch/release

Development Timeline

MINIMUM VIABLE PRODUCT

#	Assignment	Type	Status	Finish By	Notes
1	Design Document	Other ▾	Finished ▾	Jan 31...	
2	Create claw arm asset	Art ▾	Finished ▾	Jan 19...	Use textures from vid
3	Create dome asset	Art ▾	Finished ▾	Jan 19...	Find 360 panorama
4	Create car parts of Honda Accord with Shape Keys	Art ▾	Finished ▾	Jan 19...	Damage Shape Key and create interior + engine and battery
5	Create trash dumpsters	Art ▾	Finished ▾	Jan 26...	Metal, Glass, Engine, Battery, Interior, Axles (just like in the video)
6	Simple player movement	Coding ▾	Finished ▾	Jan 20...	WASD and up and down
7	Complex player movement	Coding ▾	Finished ▾	Jan 22...	Give it weight + pinch/release and rotation + bounds
8	Car Part class	Coding ▾	Finished ▾	Jan 24...	Implement Car Part class, make it work with anything it's on.
9	Fully destructible car	Coding ▾	Finished ▾	Jan 26...	
10	Particles	Art ▾	Finished ▾	Jan 28...	Trash particles when pinched/sorted
11	Car/Object spawn	Coding ▾	Finished ▾	Jan 28...	Respawn glitched out of bounds objects
12	Sound effects	Audio ▾	Finished ▾	Jan 30...	Player movement, collisions and trash dumpsters
13	Timer	Coding ▾	Finished ▾	Jan 31...	Time countdown and addition
14	Highlight shader	Coding ▾	Finished ▾	26. 1. ...	Object to be pinched

#	Assignment	Type	Status	Finish By	Notes
15	PSX shaders	Coding ▾	Finished ▾	30. 1. ...	
18	SUBMIT	Other ▾	Finished ▾	Jan 31...	

BEYOND (if ahead of schedule / extra time)

Layered, speed changing music	Audio ▾	Not sta... ▾	
Progressive pull mechanic after pinching to rip apart	Coding ▾	Not sta... ▾	
Extra cars	Art ▾	Not sta... ▾	
Settings Menu	Coding ▾	Not sta... ▾	Volume slider
Game Over screen	Coding ▾	Not sta... ▾	