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CS 4530 - Pinball Maker

The new pitch for my final project that was approved after class 4/11/18

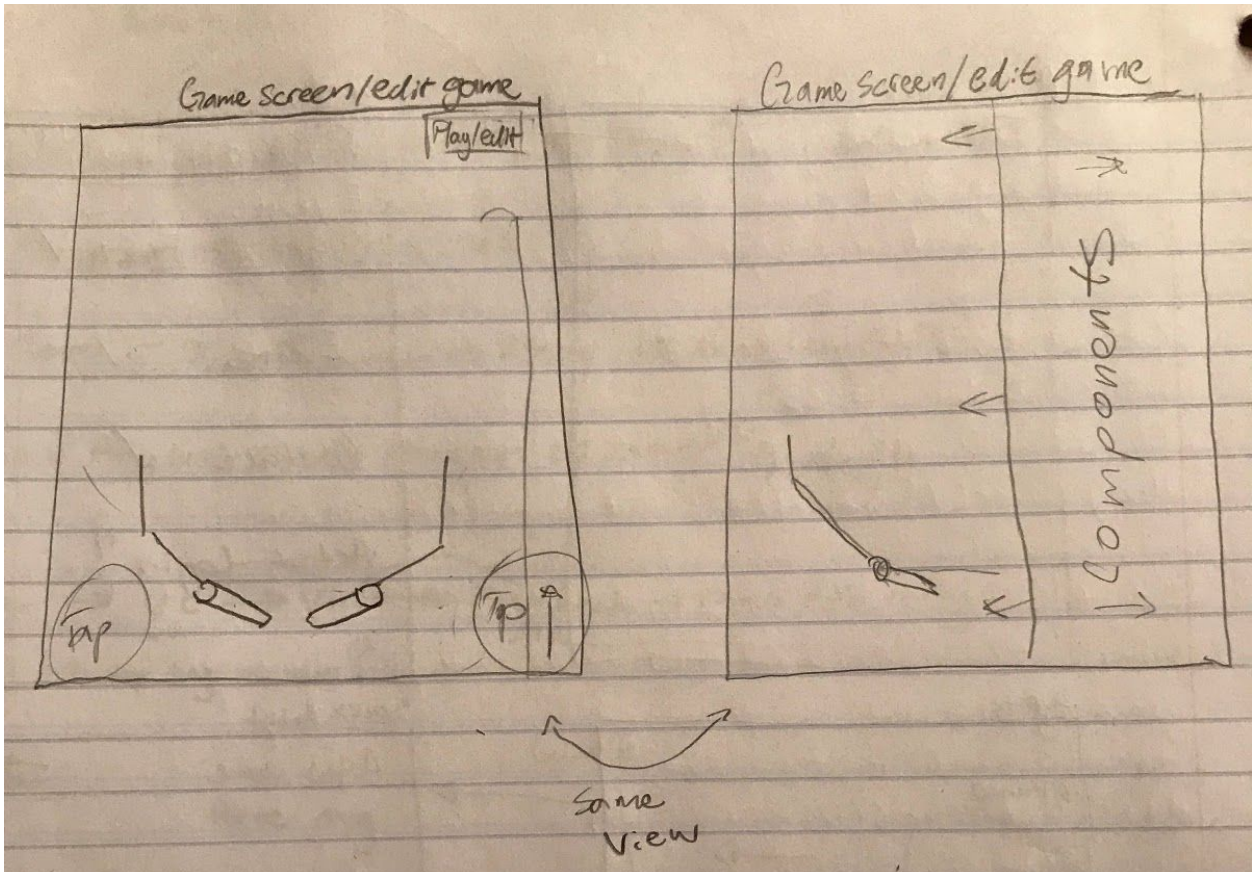
Components

Abstract:

My app is a pinball game inspired by mario maker. You are able to create a simple pinball table and play it. You have a single screen where you can play and edit the game. On this screen is a button that either says play or edit depending on what mode you are in. If in edit there is a tray on the right that slides out that holds the various components that you can place on the table. If in play mode you tap the left and right bottom corner areas in portrait mode to hit the flippers to hit the ball. Only 1 table per game.

Will be doing all within OpenGL.

App Screen Descriptions:



Game screen in edit mode:
While in edit mode there is an available tray to the right that can be tapped to have expand and tapped to have it slide back. This tray holds the components and once a component is tapped on and then tapped on the table screen it is then placed on the board.
Edit screen is all about placement of components so you can move items around. There is a button on the screen (not sure where to exactly put it yet) and it will say play and once tapped and confirmed you want to play the board state is then switched to a playable pinball board.

Game screen in play mode:
In play mode there is a button (location yet determined) that says edit that allows the state to switched to edit mode.
The bottom right corners are the tappable areas to activate the flippers to hit the ball.
Everything will have physics tied to it so they ball reacts in a normal fashion.
Tap the right side to shoot the ball up when the ball to start the game.
When a ball falls through the middle it will just respawn back to the area to shoot again.

List of Future Features:

A tilt feature when you turn your phone left right or up it tilts the board that direction.
Stupid amount of customization in components colors, shape, look, feel, sound, etc.
Ability to share your board and score through social media.
Custom views so if your ball goes in a certain hole after a certain combo it takes you to a new screen like pokemon pinball with bonus stages.
Score features
A lot more components
Online networking for scores and tables.
Share layouts, and more general layouts to pick from.
Better sprites, music, and sounds.

Breakdown and Tracking:

Component	Expected	Actual
Game view (play) OpenGL	7	18
Game view (play) backend	4	10
Game view (edit) OpenGL	10	16
Game view (edit) backend	6	10
Edit tray w/ components view OpenGL	7	8
Edit tray w/ components view backend	4	8
State machine	5	2
Physics	7	20
Total:	**50 hours**	**92 Hours**

This assignment was an insane amount of work.

All graphics are done in OpenGL which I had no previous experience with and it shows. Also all the physics were done by me and since I never found a way to draw hitboxes for debugging with OpenGL they were done with a lot of guessing so the physics are janky. I am proud of what I was able to figure out even if it isn't pretty, it was damn hard.

Play button and edit button are how you can essentially restart a game if anything goes wrong, the undo button in the top left corner will remove a component recently placed. When you see a green see through bar on the right side it is the tray of components to select from.

Also drew all my own sprites. Which time i added into my hours above.

Enjoy the game even if it is buggy it's fun.

Also MUST run this on a phone, the simulator can't handle it.