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ART 385: Interaction Design
Space Dodge

I have really enjoyed this class because I have not only advanced my coding and design knowledge, but I have also had the opportunity to listen to many great speakers who come from various fields of digital design. The guest lecturers, reading assignments, and exercises contributed to my improvement in conceptual thinking and process oriented design. Too often, I find myself making "portfolio-ready" projects in my design classes without really engaging in the creative design process. Out of all the beneficial outcomes from this class, I have benefitted most from the focus on iterative development. My process greatly improved throughout the semester and I think that all of my projects reflect my ability to effectively experiment, make adjustments, and refine interactions.

When I first started my final project, I came up with game concepts that could use the box2d library for dynamic collisions. I had been using this library for my senior thesis and I thought that it would be a great idea to bring precise vector physics into my game. Looking back on my original outline, it's clear that I was adding too much complexity for the allotted time. As I moved forward, I began to focus less on the intricacy of the whole package and I started to deconstruct the experience and shape each interaction and experience with precision. This was difficult (but eventually rewarding) for me to do because I wanted to have an extensive game loaded with elaborate levels and a multitude of challenges and obstacles. I'm very glad that I swept these aspirations under the rug because otherwise, I'd miss out on the opportunity to craft subtle and engaging experiences.

After I had figured out my core mechanic for Space Dodge, I made a rough prototype that would serve as a framework while I refined the details. Some of these details may seem gratuitous, but I believe that if these were to be used a project of greater scale, they would greatly contribute to the gaming experience. Some of these interactions include how the score in "calculated" and displayed. I tried to animate the scores as much as possible so that the score and life values would not immediately change. By prolonging the changing values, the mental model becomes much clearer. If a life is taken away, a red "-1" will flash near the scoreboard. If points are added for an action, the value will also momentarily display above the score. As I continued to develop the game, I added more details such as invincibility modes after reaching a certain score or as the ship respawned. My user testing results indicated that these adjustments drastically improved the gameplay. The final version of Space Dodge feels much different from its prototype predecessor. I made many adjustments to complete revamp the visual atmosphere. Along with the noticeable elements such as the background and the spaceship, I also added small details such as flames behind the ship's thrusters and a parallax effect in the background.

Space Dodge accurately reflects my interaction design knowledge accumulated throughout the semester. I am very enthusiastic and passionate about create coding and I am excited to explore more avenues in this sector of design.

Thanks once again for all of your instruction and help throughout the semester. I've really enjoyed being in your class and I look forward to learning D3 next semester!

Original Outline

In Space Dodge, a player will control a small ship that navigates through geometric obstacles in order to complete a level. The difficulty and complexity of the obstacles gradually increases as the game progresses. I hope to design a gaming experience that encourages the user to develop various strategies to complete each course. Many of the elements and components of this game are unnamed and there isn't necessarily a theme. I will develop these details as I develop the functionality of the game.

Environment / Setting:

Each level will be contained within a rectangle. There are three points of interest in each level. First, there will be a starting point or portal where the player begins each level. The player must safely navigate to the second portal (the finishing point). Before the ship passes through the finish line, the player must collect a key to unlock the portal. Once the level is completed, the accumulated score will be displayed and the player is allowed to continue to the next level. I'm really busy with the rest of my classes, but I hope to add a final level where the player is confronted by a boss—enter Mr. Blob.

Player 1:

The player will control a little arrow-shaped ship that has characteristics and behaviors similar to the ship in the classic game, Asteroids. The user will be able to steer the ship by rotating and gliding within the boundaries of the level.

Obstacles:

For the most part, the goal of the game is to dodge circles that bounce off each other and the walls. These circles will have different properties depending on the level of difficulty. Some of the properties that will change include:

- size
- opacity
- speed
- friction (physics via box2d)
- restitution (physics via box2d)
- direction (free-floating or attracted to ship).
- possible guest appearance from Mr. Blob

I will be using box2d, a physics library, to render accurate collisions and deflections. The obstacles will float within the levels as if gravity is not present. Also, I have not decided if my monster will be included in this game. If he makes an appearance, I will adjust my program to complement the rest of the gaming experience.

Scoring:

The score will be based off how quickly the player completes each course. I may add bonuses that increase the player's score.