Final Project Technical Pitch
CART253 | Pippin Barr

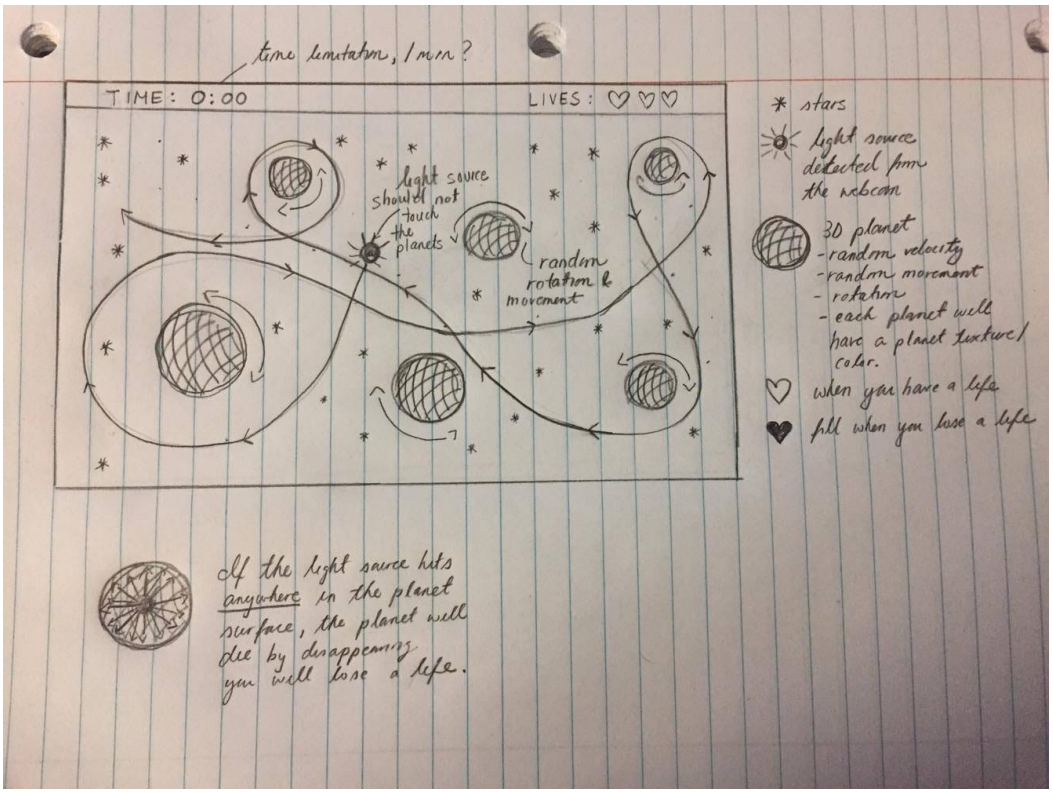
Aniesha Sangarapillai

Summary

My final project will be a fullscreen game called “SAVE the Crazy Planets”. The game is based using 3D and the webcam. To play this game, the player will need to be in complete darkness and is required to have a light source, like a mini torchlight to interact with the game. Visually, there will be white stars here and there to make the player look like he/she is in space. The planets in this game will be created using 3D spheres. These planets will be moving around the window in random directions, velocity and will be rotating. The objective of the game is for the player to move around the light source and avoid ir from touching the planets. The player needs to avoid the x,y location of the light source to meet with the x,y location of the planets. This is challenging because you do not know in which direction the planets will move. The player needs to continue playing by avoiding the planets for about a minute or two (maybe more… duration of game not sure yet - need to test play to pick a good time limit). If the light source touches the planets, the planet will disappear, meaning, the planet died and you will have an explosion sound. You have 3 lives before you lose the game. So you can kill 3 planets and not lose. After the third one, the game is over.

If this is difficult to achieve, another idea I have is to keep the same basic concept of the planets but instead of the light source & webcam, the player will use the mouse to interact with the game. This game will be called “KILL the Fake Planets” In this one, you will have duplicates of the planets (maybe 2-3) but there is only one version of the “real” planet. The planets will all look the same. The objective is to kill all the fake planets and only have the real ones left. There will be points stored into these planets. The player will need to click on these planets with the mouse. If the player clicked on a fake planet, the player will gain 5 points and the fake planet will disappear. If the player clicked on a real planet, the player will lose 5 points since the player killed a real planet. Within a certain time limit, to win the game, the player must have at least 5 real planets left on the screen and a certain number of points (min/max fake planets killed). There are 3 lives so the player can kill 3 real planets before losing the game.

Media



Inspirations

I was inspired by the class lecture where you spoke about 3D and I thought of doing something that has a 3D effect for the final project. I liked the idea of using the webcame from exercise 6 for interaction so I decided to combine them both together.

Technical approach

To create the planets and for the movement of the planets, it will use translate and rotation. Instead of having a fill color of the planet, it will have a texture. The texture of the planets will be created using Pimage. For the interaction, the video library in processing needs to be loaded. Since the player will be in the dark with a light source, processing will detect the most bright pixel of the window which will be where the player will shine the light on the webcam, and that is how the player will be able to interact with the screen and play the game. I will need to define a class for the planets. They will have an array and it will have random direction, size and velocity. I will need to write code to make sure that the location of the light source and the planet do not met. If it does, to kill the planet and the player will lose a life. The game will need to have a timer and life tracking. If a forth planet is killed, the game will be over and display a game over page. The game will have parts of code from exercise 6 intergrated into the game code. If I choose to do game idea 2, I will need to have a score tracker.

Technical research

https://www.youtube.com/watch?v=FGAwi7wpU8c&index=4&list=LL6MyqwgB_KkGOPzFLaXBSig

This 3 part tutorial by The Coding Train will be useful for me because it goes through the process of creating the planets and movement. His video is about creating a solar system but in my case, the planets will be moving in random directions therefore they are “crazy” planets!