Project proposal - Ryan Bujold

Vision

My vision for this project was originally going to be to make a kind of simple 3d shooter in the spirit of the game "Doom". However, I quickly realised just how difficult that would be. But after looking at what I had started with, a new idea had appeared. I would stick with the idea of a shooter, only now it is a top down arcade style shooter similar to games like "Hotline miami". Something that I also want to incorporate was also discovered by accident while messing with my 3d program. I found that I could use my player sight, originally used for drawing what the player sees in 3d, to make a flashlight. And now I want my game to heavily utilise light as a mechanic. This all gave me the idea of theming around a dark haunted house with zombies and potentially other ghouls as enemies. The goal being to survive in the house for as long as possible. I want the game to be very polished and visually appealing, at least compared to my previous projects. I also want to push my programming skills by adding details wherever possible. Such as textures for the floors or animations.

Plans

One of the challenges will be creating everyone I want within the time. So I believe to fix this, I should outline the steps I will take to make sure I stay on track overtime. To start, I will have to design the room for the user to traverse. This can include as much or as little detail visually as I want but the minimum requirement is that it interacts well with the flashlight. This could mean blocking visibility, having items illuminate under light, etc. Then once we have the main room, I would implement more rooms using classes and such and have transitions across rooms. The next step would be to add enemies. First getting them to appear and move, then getting them to interact with the user and so on. With the base game done, I can add a win and loss condition, a title screen and some win/lose screens. With the basics done, I can now start adding more content to the game. Tweaking the player and their weapon, maybe adding more weapons, items to pick up, powerups, powerdowns, etc. I can add a lot to this project to add more features and polish to make a more engaging experience. The goal being to create a very polished experience that feels complete and clean. All while fitting within the horror theme and darkness element I have been aiming for. I also think that maybe I can incorporate the 3d idea I originally intended this project to be in a simpler way perhaps. Adding back in the 3d would be tricky so my plan for dealing with these challenging mechanics is to make sure the base game is finished and then experiment with different additions to see what might be possible. With testing these different mechanics, I would think about how much time they might take or the maths involved in making it happen correctly. I think that a good idea would be to have a backup plan for these ideas. This project is already a backup plan for my full 3d engine, so I think this approach will be best. I might even be able to come up with something completely new

and interesting. Just deciding how to structure the overall project will most likely be difficult. So for this I want to make sure that my code is clean, well commented and organised. Maybe the most difficult thing will be to create animations. I think the way I can deal with this is by looking into p5 libraries or making a simple animation class. Either way, I will probably leave this close to last as it is just for polish. I would really like to implement this so I will do my best to organise my time and get all the features I want implemented in a timely fashion.

Visual sketches