

### Final Project Proposal

For my final project, I want to evoke a sense of fascination and curiosity with my game experience. I would like to create a dynamic map that moves according to the music that is playing. For this, I will be looking into how sound values, such as the amplitude or the frequency, can be used to adjust the height of each map square in the Minecraft-style map. I really want to look into how music can be used in different ways to alter a player's game experience. I've seen other games, such as *Rock Band*, *Dance Dance Revolution*, or *Audiosurf*, use music in different ways to make them more unique and creative from other games.

The experience starts with the player starting on a beginning stage that moves out to the actual map that moves according to the music that is playing. Playing from a first-person perspective, the player will navigate the moving map finding collectibles that are scattered around it. Collecting each of these collectibles could change some things in the game, from changing the tempo of the music or altering how the map moves to the music. The moving blocks could also change color depending on their height to make the game more interesting to look at. I hope this will become more of an interactive art piece with some small game elements added in.

I will be using the algorithms that we used for terrain generation and music visualization to make my game. Using various music soundtracks, each level will play differently from each other, with slow-beat, soft songs being much easier to navigate around than loud, fast-beat songs. Hopefully this will become a fun and interactive experience for the player to enjoy.

Schedule:

First Week:

- Basic level layout
  - Level design
    - Create the general layout of the first level and maybe even the second level if time-permitting
    - Atmosphere
  - Environmental Objects
    - Things to fill up the space in the game (either from the assets store or make them)
- Player
  - Controls
    - Basic rigid body movement using either the directional keys or 'w'-'a'-'s'-'d' keys
  - Camera and character controls
  - Switching between first-person and third-person (optional)

## Second Week:

- Pickups
  - Keys
  - Contraptions (optional)
  - Puzzle pieces
- Getting the music to move the map blocks
  - Modifiers to the music
  - Collectibles change different elements in the game
  - Coding

## Third Week:

- Character polishing and tweaking
- Camera polishing
  - Optimizing movement and how it follows the player
  - Finishing the HUD
- Level Polishing
- Textures
- Optimizing movement
- Bug fixes
  - Checking that the puzzles work properly
  - Makes sure everything works properly and there are no glitches left

## Images:







