AME 494: WEARABLE MUSIC

MUSICAL MAPPING

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SOURCES OF INSPIRATION

- Pacing – create music by 3D motion in any direction, make exercise fun

- Cursive – Analyze the differences between how people write in cursive. Each person has special ticks they do.

- My guitar – During class one day, Mr. Sy talked about his guitar. I ended up deciding that I want to make something where people can incorporate their own music.

EVOLUTION

- Pacing Idea – Device would generate sounds on every consistent iteration of motion, help people find entertainment in physical activity.

- Cursive Idea – Articulate the differences between each person's cursive drawing. However, this was proving increasingly hard with the minute movements of writing

- Drawing Idea – Provide a larger canvas for users to input more motion. This can allow the users to alter the sound more fluidly. (Timestretch)

RECORDINGS USED

- Water sounds → I didn't know what kind of music I wanted to make yet, so I started experimenting with waterfall sounds.

- My guitar → I have a few songs that I created. I think what would make this unique is by allowing people to input their own music. For my presentation, I created a little melody I like, with a repetition of the open strings in two different strumming patterns.

MOTION DATA BEING USED

- I am using the accelerometer data from 3D motion.
  - This is sent through a Timestetch that will slow down or speed up the sound file based on the user's acceleration.
  - The 3D motion has the accumulation of Energy totaled up
  - There are 8 different presets that control the (Depth, Rate, and Shape) of the amplitude tremolo.
  - I tried to make a progressive difference in the sound file by slowly inverting the shape from preset 1 to 8.
- The Pitch and Roll are connected to Shepherd tonnes, whose main purpose is to emit a pitch to tell the user if they are favoring the inner part of their wrist heavily. (Cursive)

TESTING AND ITERATION

- Used water sounds to get basis of time stetch

- Added reverb to the sounds (supermassive)

- Use Accumulation of Energy to affect the new sounds created

- I had an original melody I created from my guitar, but it sounded to bland with the accumulation of Energy, I changed it by adding a second strumming pattern.

SHORTCOMINGS DIFFICULTIES

- I like symmetry very much so, throughout all my music.

- One of the difficulties was finding symmetry through roll and pitch. It was hard for me to connect these in a way that really resonated with me.

- 3D Motion is in all directions but roll and tilt are a little stricter when placed on a wrist.