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### **Artist Statement, Design Research Questions and decisions/new questions**

As a musician, limitations and interactions are extremely important in the creation process of song writing. It is too easy to be side tracked by having a wide variety of sounds, instruments and equipment interfaces to explore. The beauty of a simple linear 16 step sequencer is that it forces you to work with only one bar. The downside of these sequencers is that one often gets stuck within these one bar loops and they are often coupled to a single instrument or sample.

Exploring how I use limitations and interfaces, it led me to create a visual sample sequencer. By using a fixed set of samples that are placed on one bar loops, it is extremely limited. By attaching these samples to a interface made up of moving colourful shapes, these limitations began to be camouflaged as not only is one focusing on the sound but also what colours attract them. By using these visual cues to trigger and loop the fixed sample set, it is easy to jam and create a song by just interacting with the colors and movement of the shape. I believe taking samplers outside of the typical 16 step linear fashion and having a sequencer based on visual cues can create meaningful songs with a limited amount of samples.

To implement these in my code, I used the processing library minim Sampler object, Boolean arrays, arrayList of shapes and PVectors. This Sampler object does in fact work like a 16 step linear sequencer, but instead of turning on a button at a specific step to trigger the sample, clicking a shape will trigger the sample to loop one full bar.

### **Design Research Questions**

Since starting this prototype two design questions came up, what colors and shapes do I find interesting, and will others find them interesting as well. For this prototype I decided to use squares and a choice of 3 colors only. I need to further research what other options that I can code that can make these shapes extremely interesting and engaging.

### **Decisions and new questions**

From my initial idea to my prototype I realized how hard it is to sequence different samples with different lengths and different bpm's. I had to create a sample set that were all the same bpm, but still some of them are varying lengths still. Implementing the trigger to function that they all loop together on the same 16 step clock was also another challenge.