Beads AV Assignment

This sketch is an adaptation of the Beads Workshop 2 lab; I decided that I wanted to extend this lab work because I had a lot of fun with making music using beads. I started out extending my lab work by tidying up the code using a class. I noticed that the main chunk of code was in *clock.addmessagelistener();* so I decided to make a class that would house all of this code to clean up the main setup function. From there I pretty much copy and pasted my code from the lab into the new class and found that it ran the exact same way but the void setup was now a lot cleaner. I decided to further this code cleanup by making each individual sound wave that I had created a function and calling them whenever I wanted them to run. Once this extension was done I decided to take things further by allowing some interaction with the music, I added in key presses that would allow the user to toggle certain sounds on and off at will. I finished by adding a simple interface that let the user know when a certain sound was playing and I took a visualizer from an existing example and edited it to suit my taste.

How it works:

The Sound: I create sounds using different waves (SINE, SAW etc) and load them into a wave player to play back the sound. I then use a clock function to send out a beat every 125ms and use if statements to determine how often I want the sound to be played. I then connect this to an Audio Context which plays the sound.

The Visualizer: The visualizer loads in all the pixels of the sketch, sets a background colour, uses two integers (one to get the buffer size of the sound and one to find out the height of the audio at any given point) and then goes through a for loop drawing 20 lines of pixels that change depending on the height of the audio. It then updates the pixels every frame once it has done this.

The interaction: I simply used if statements based on key presses that either turned the sound on if the if statement was true or turned the sound off if it was false, I then added colour to the “lights” below the sounds if they were activated.

NOTE* All References are noted within the actual code (including links and credit) and a more in depth explanation of the code can be found alongside the code.