Project Outline

I will be creating an interactive art piece that will be the first of a series of interactive art pieces that falls under a body of work that I am currently titling *Physical Presence in Digital Nature*. The piece's working title is *Fireflies. Fireflies* touches on the idea of creating electricity through human power. More so, *Fireflies* aims to help sink in the message of "the greater your effort, the greater the reward." I will embed the later content into the project by creating code that rewards a faster (more effort) interaction and prolonged interaction.

The presentation, or installation part of this project will be small, but has the potential of scaling up in a projection or larger screen. The main element in this piece will be an interactive mason jar —like one you typically see used for catching fireflies. The jar will be modified to have a crank on the lid, similar to what can be found on some traditional style ice-cream makers. The crank, or handle will be connected to a sensor that will detect speed and the total number of revolutions. The jar & handle combination will be secured to a presentation surface at around the height of a standard table.

The interactive jar will then be connected to the computer that will contain the software necessary to display the output. The computer will display the output result via a full screen display on a screen—the specific size will be determined later. Depending on the results of prototype testing, the sensor being used may or may not be required to connect to an Arduino before it can interact with Max. In an ideal situation, a bluetooth enabled sensor will be connected directly to Max and output the data necessary (bluetooth enabled bicycle cadence sensor). Alternatively, a wired sensor will be used.

The visual reward for the viewers will be the output on the screen. The output will be a static photographic background that is initially hidden, with the exception of the light from a single firefly. Once the hand crank is turned, the firefly will begin to move relative the speed the crank is being turned. Every three (or so) revolutions, an additional firefly will be generated into the scene to illuminate more of the environment. The idea is to encourage users to continue to turn the crank to add hundreds, even thousands of fireflies to the scene; which will light up the entire *Digital Environment.*

I initially came across this idea while searching for a means to use a cadence sensor; which I am planning to use for a future project. As I began sketching different uses for *cranks,* I stumpled across an image of an old fashioned peanut-butter mixing jar which got me on the tracks of a mason jar. My future BFA project deals with *Digital Nature* which brought me to the idea of encapsulating both pieces in a body of work. Recently (the last year) I've been interested in generative art and the *Fireflies* project seemed to be the embodiment of all of my ideas.