

# The Fifth Obstruction – Final Project Proposal Form

**Name:** Ben Johansen

**Title of Your Project:** *Light Box*

**Do you envision your work being presented on the April 20<sup>th</sup> concert in the MEIT?** Yes ✓

## **Description of the Project:**

*Light Box* is a fixed media piece with some narrative aspects centered on a personified small black box containing an RGB LED. 5.1 surround tape music and projected animated shapes and colors sync up with the opening and closing and RGB LED colors of the box using Max/MSP and an arduino interface. The media used causes the audience to feel as though they have been immersed in an environment they have never before experienced.

## **Technical Needs (provide a comprehensive list of equipment, media, etc. you think you will need to present this work):**

- 3 projectors (I have access to one) - two of the projectors will be used as an easy way to create theater lighting to the left and right of the main projector
- 1 Computer able to simultaneously run Max/MSP/Jitter 5 taxed with 5 channels of output, video from Jitter, and the arduino to control the light-box
- 5 Speakers and a Subwoofer - 5.1 surround sound in the MEIT = 1 and 2 as the center speaker and 3, 4, 7, 8 as L, R, Ls, Rs
- 1 Pedestal - to put the light-box on so that it is just below the projected image of the main projector
- 1 Ethernet cable - long enough to run from the mixing area to the light-box in the front of the hall
- 1 Light-Box (+ DC 9v adaptor) – [benjohansen.com/light-box](http://benjohansen.com/light-box)
- Realized Project Files

**Methodology (describe the process by which you will realize this project - include a timeline):**

I began mapping out what technologies I would need for this project a few weeks ago, so I am relatively confident on how I will realize the work. I plan to have the 5.1 surround sound element completed by March 27<sup>th</sup> (I have already worked with some multichannel patches in Max/MSP and am currently working on one specifically for this project). As I work on the sound element, I will sketch out cues for the light-box, when it should open/close and change colors. I will also create a MIDI track to start editing the light-box cues. Then, March 27<sup>th</sup> to April 10<sup>th</sup> I will work on the visual elements of the piece. I will first create shapes and animate them in Animata. Then, I will complete the Animata control data (including the light-box's MIDI tracks that go along with the sound) that syncs up with the sound with the animations (controlled by Max/MSP). Using a screen capture program, I will capture the Animata animation sequence by running the piece. Then, I will post process the screen capture in Max/MSP using Jitter. This will be done by running the sound element through various Jitter effects that will process the video in one of two ways: 1) layer a filter over the video at specific time based cue points 2) effect the video according to spectral analysis of the sound file. For assurance, since it is a fixed media piece, I plan to render the video into a QuickTime video in Max/MSP. The performance will consist of Max/MSP/Jitter playing back the sound and video in addition to controlling the light-box via an arduino. I plan on leaving from April 10-20 open for any technical difficulties that may arise.

**Tools and Technologies (list any software/hardware necessary for the realization of your project – list your familiarity with the listed technology – and describe how you intend to overcome any lack of familiarity):**

- Programs I am familiar with or that seem very user friendly: Max/MSP, Animata, [a screen capture program], Pro Tools and Nuendo (and/or other DAWs), video editing software *may* be needed (Final Cut, etc.)
- I am most concerned about learning and using Jitter in an interesting and creative way. I have yet to work with Jitter but I feel confident enough about finding help from UNT faculty/students and tutorials to use it for this project.

Other Thoughts or Concerns (if applicable):

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