Final Project
(Due Tuesday, December 8 in class)
(One paragraph summary of topic due Tuesday 11/17 in lab)

Your final assignment will consist of three parts: a project/investigation, a paper about your project and a presentation to the class. You will give your presentation during the final three classes (December 8, 10, and 15), with **eight minutes** allotted to each student. **All written material must be turned in on December 8**. All relevant documents should be placed in your Class Storage folder, within a folder labeled Final Project. You may chose among the following options.

1) **Investigate** a topic covered in lectures and/or the readings for the course, and present your findings in an essay of 6-8 pages supported by sound examples and analytic data. Possible topics include: a) the characteristics of a sound or sound source, including identifying traits and range of variation within which the sound remains recognizable b) an aspect of sound production or a performing technique using a musical instrument or voice (e.g. vibrato) **that does not duplicate work from your midterm paper,** c) analysis of the performance of a specific piece of music that investigates how timbre, timing, dynamic change, and other measurable parameters contribute to expressive effect, d) the role of scales and tuning in a specific piece of music, e) an aspect of sound perception, supported by experimental data (see Prof. Friedman for guidance and assistance), f) the acoustics of a particular space (e.g. a shower stall) in terms of its resonances, standing waves, etc., supported by experimental data (again, see Prof. Friedman for guidance and assistance).

   The class presentation should summarize your findings and include appropriate audio or graphical content.

2) **Build** a simple musical instrument, either acoustic or with electronic circuitry. Demonstrate its use with a short example and explanation in class. Write a supporting essay of 2-3 pages describing your instrument's sound-producing properties and playing techniques. (Those building electronic instruments should seek advice from Prof. Friedman).

3) **Compose** a short work that is playable in class. Write a supporting essay of 2-3 pages describing the principles of acoustics or theory considered in its composition, with optional discussion of aesthetic criteria. The medium may be either:
   a. Instrument/voice, with a written score notated either in standard notation or a clear personal version of notation.
   b. Recorded/electronic sounds. Your sound file (.aif or .wav) should be placed in your Class Storage folder. You should also include any software files (Audacity, Max/MSP, Mathematica, etc.) used in the creation of the composition.