Group Project

Due: Friday Nov. 19, 2013

Physics 1320  Music & Physics  Prof. Tunks & Olness

This counts for 3 quiz grades. You may work in groups of 2 or 3.

(If you really want to work in a group of 1 or 4, bring us a proposal.)

After you find your topic, FIRST email Prof. Olness for an OK.

Possible Topics:
Find a way to illustrate different musical temperaments
Build a model of part of the ear
Experiment with conical pipes, w and w/o mouthpieces; hose-a-phone
Video of a strobe on various instruments.
I am sitting in a room: demonstration of room resonances.
Shatter wine class with instrument, voice, or freq generator.
Experiments with a Roland synthesizer.
Build a 2\textsuperscript{nd} laser-light demo.
Digital video of a wolf-tone with explanation.
Take a violin; cover the f-hole; add weight (clay) to parts: find spectrum
Find the range of a trumpet; can you throw farther left or right handed?
Build a home-made recorder and space the holes evenly.
Build a set of chimes from steel pipes: w & w/o notches.
For a woodwind; what is relation to note and open pipe length?
Build a low frequency resonator.
Use Audacity to record room echos of a popped balloon
Happy birthday w/ 2 harmonies to illustrate masking.
Other ways to measure speed of sound?
Find/Make/Modify java applet to illustrate key property.
... and all the others I've not thought of.