Acoustical Engineering Project & Paper

You will design, build and play your instrument for the class. The instrument should be designed to play the four notes of "Mary Had a Little Lamb" in any octave, any key. The three notes, however, should be in tune with one another so that the song sounds somewhat normal and pleasant. If your instrument plays an entire octave (in tune, of course) you will be given extra credit (up to two points extra). The grading rubric is as follows:

Short paper and sketch	Pos.	Earned
Describe your design. (design points given based on creativity, originality, workmanship of the instrument)	10 pts.	
Identify and explain thoroughly the basic physics. (Use sketches. open/closed tube, string, etc…)	10 pts.	
Labeled sketch. (Use back.)	5 pts.	
Instrument		
Instrument built	5 pts.	
Instrument able to play "Mary Had a Little Lamb"	5 pts.	
Extra Credit(octave)	2 pt.	
Total Points	**35**	