

CSC 453 - Wolfpack J Final Project Demo Steps
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Each of the three sensors will be connected to one Raspberry Pi. The Raspberry Pi will be started and connected to the cloud prior to the demo beginning. A web application will be running on a single laptop which can receive values from the cloud. The web application will be started and connected to the cloud prior to the demo beginning.

1. On the web application, toggle on the X-acceleration checkbox to begin hearing the X-acceleration. Immediately after, there should be an audible sound. (10%)
2. Now toggle the light. A slight vibrato effect should be applied to the X-acceleration sound. Now cover the light sensor and as the amount of light decreases past a designated threshold, the vibrato effect should become increasingly apparent. (10%)
3. Now toggle off the X-acceleration checkbox. The sound representing X-acceleration should stop. (10%)
4. Now toggle on the X, Y, and Z-acceleration checkboxes. There should be three distinct sounds that begin playing as each checkbox is turned on. The vibrato effect from the light sensor should be present in each of these sounds. Toggle off the light sensor to remove the vibrato effect. (10%)
5. Now move the IMU in a controlled manner to change distinct values (acceleration x, y, z). The pitch of each sound should change accordingly as acceleration is increased and decreased in each direction. (10%)
6. Now toggle off each of the acceleration checkboxes and toggle on the temperature and humidity checkboxes. The sounds representing the acceleration values should stop and a kick and snare rhythm should be audible as well as white noise in the background.(10%)
7. Now move the temperature sensor close to a cup of ice and the volume of the white noise should decrease. The volume of the drum rhythm may also increase slightly at this point because of the humidity of the ice. (10%)
8. Now toggle off the temperature while keeping humidity toggled on. Then breathe heavily on the humidity sensor. The volume of the drum rhythm should increase as the humidity around the sensor increases. (10%)
9. Now toggle on all of the sensors and all of the sounds should be present. (10%)
10. Stimulate all of the sensors at the same time and the sounds being played should change accordingly. (10%)