Weekly Report

1. **My *Goals* from last week**
    - Plan and coordinate goal for debugging lights and audio.
    - Make sure we get the right hardware for the project.
        i. Brainstorm and make sure we are on the right path

1. Went with *Blinkstick* since it was direct plug and play via USB; we just have to run Python code to use it.
2. Did not go with *Neopixel* since it required specific amps to run and an arduino which also had specific volt and amp requirements
3. Use SFML library to run audio via C++.
4. Need to do threading for the audio while the rover's *mobility.cpp* continuously runs.
    a. Had trouble using the standard C++11 library threading
    b. SFML was able to provide threading which we were able to use.

    - We were able to embed Python code in C++.
    - Successfully linked Python and SFML using CMake.
    - Able to purchase Recreational Center passes.

2. **My *Accomplishments* this week**
    - We were able to test the speakers for the rover since they arrived yesterday.
    - Come up with a couple ideas on how we want the debugging audio to work.
        i. have simple single notes playing in the same key
        https://www.youtube.com/watch?v=rYIkgG1nX4E
            1. each rover will have a different key in order to differentiate
        ii. each rover will have a different instrument/sound, but a similar rhythm.

3. **My *Goals* for next week**
    - Hopefully get to test the LED's since *Blinksticks* are ordered from the United Kingdom.
    - Have a set idea on how we want the debugging LED's to work.
        i. Have different patterns and colors for each rover state.
    - Have a steady plan for the debugging audio
        i. implement and test

4. **What I need Dr. Becker to do:**
    - Need parts for rovers so we can start assembling the other two rovers.
    - Discuss about audio ideas.
    - If needed, talk about LED ideas.