I. Backpack Lever Arm System

Work Completed:
During this week, the team finished programming the microcontroller that controls the two servo motors. The programmed microcontroller successfully rotated motor one 90 degrees, and motor two 270 degrees. The following pictures show the initial and final positions of the motors after rotating.

Figure 1. Initial position of the motors
Several changes were made to the initial schematics, so the PCB needed some modifications which were also accomplished this week.

I also looked into casing for the two servo motors because the gears may cause injuries to the user and people around the user when the device is in use. I found out that the black plastic boxes we used for the EKG project last semester are perfect for the sizes of our motors.

**Future Work:**
During next week, I will order the PCB and all the components that we need to build the circuit. I will also continue working on insulation of the device.

**Project Review:**
The team is moving along smoothly with this project, and followed the timeline this week.

**Hours Worked:** 12

II. **Shampoo & Conditioner Identification Device**

**Work Completed**

After testing the amplification circuit on the protoboard several times, we found out that the reason the circuit hasn’t been performing as desired is because the amplifier LM4876 is not working properly, therefore I
ordered more, and we are currently waiting for them to arrive. I also ordered better speakers for the device.

**Future Work:**

Next week, I will continue working with the amplification circuit, so that we can order the PCB as soon as possible.

**Project Review:**

The team is moving forward with this project, and following the timeline.

**Hours Worked:** 3