Project Identity
Modified Communication System for Client with Disabilities
Week 8: 10/15/06 – 10/21/06
Stephanie Santos

Work Completed
This week, we completed a great deal of necessary tasks for this project. The parts that were ordered from 80/20 Inc. were received and we were able to assemble some of them. The linear bearing and ratcheting L-handle (break/lock for joystick) were received, and the parts needed to be prepared for use. A hole was drilled in the bottom section of the linear bearing so that the break could be installed. Figure 1 shows the preparation of the bearing:

Figure 1: Linear Bearing Preparation

The finished linear bearing with the L-handle attached slides along an aluminum extrusion, which will be permanently to the left arm of the wheelchair, which is demonstrated in Figure 2:
In addition to this preparation of the parts, we also tested the setup of the rocker switch and mapped out a schematic for the circuit containing the monitor, battery, and charger. Figure 3 shows the schematic for this setup:

![Figure 3: LCD Monitor Power Switch Schematic](image)

It was determined through testing that the switch rocker in the on position (depressed) is opposite of the connection poles.
This week, contact with Microsoft, regarding the use of the joystick as a computer mouse, was attempted twice, both through their online service and through phone service, but both attempts were unsuccessful. Additional parts were ordered from 80/20 Inc. for the mounting of the LCD monitor once permission was given to exceed the budget.

**Future Work**

Our future work will involve the construction of the LCD monitor case and the final assembly of all our other parts. We also may implement a few new small additions to touch up the project a bit, such as a function switch for the joystick buttons or an LED indicator to differentiate charge and power modes for the monitor. Once the remaining parts from 80/20 Inc. are received, we can assemble the mounting arrangement for the LCD monitor as well.

**Project Review**

We are making exceptional progress with our project, as we are nearing the end or our project’s preparation and assembly. We have completed a significant portion of our testing phases and have nearly all necessary parts received. We anticipate that our project should be completed well within our deadline.

**Hours worked:** 8