Project Identity
Modified Communication System for Client with Disabilities
Week 7: 10/8/06 – 10/14/06
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Work Completed
This week, we made several accomplishments with our project’s testing and assembly. Phil was able to contact 80/20 Inc. to determine the prices for all of their parts we had looked at. As it turns out, some of the parts we had intended to use for the mounting system of the LCD monitor are a little beyond our price range, so we looked for alternatives for the mounting of the monitor. I had the idea of using an adjustable, circular clamp to attach the monitor to the 1.00 in. mounting pole, currently used to mount the DynaVox, and possibly attaching either another clamp or pole to the other end of the clamp to create a universal joint for left-right and up-down adjustment of the monitor. After some searching, we found a double sided circular fastener which could be used for this purpose (Figure 1).

Figure 1: Double Coupler Fastener

One side of this fastener will be clamped to the DynaVox mounting pole and the other side will attach to a small handle mounted to the back of the LCD monitor case. The handle will have a circular cross-section with a 1.00 in. diameter. By making these changes, we were able to eliminate the use of the more expensive parts from 80/20 Inc. We will,
however, still use the unibearing and extrusions for the mounting of the joystick.

We also made some tests with our LCD monitor. The monitor was hooked up to the old version of the client’s DynaVox and powered by the battery pack. The LCD monitor displays a clear image of the DynaVox screen, as shown in Figure 2:

![Figure 2: LCD Monitor Display](image)

The monitor displays a clear picture of the screen that the client sees when operating his DynaVox, making it possible for friends, family and peers to see and interact with the client, anticipate words and carry out a more normal-paced conversation.

The aluminum case for the joystick has also been received and this week we made all the appropriate measurements for the cutout positions necessary to place the joystick into its case. The cutouts will be made in the case this week in the university’s machine shop. The order was also put in for the ABS material to make our case for the LCD monitor and its components and the ABS adhesive was also ordered.

**Future Work**

For the next couple of weeks, we will continue to assemble our various parts. Hopefully, our ABS plastic will arrive shortly and we will be able to machine the plastic to make the case. We will also continue to work getting the joystick to function as a computer mouse as well as a joystick, to add an extra helpful feature to our system. We will also
continue working on some new ideas to add to our project to make it
even better and more helpful to our client.

**Project Review**

Our project is moving along smoothly. Almost all of our parts have
either arrived or will be arriving soon. So far, our testing phases have all
been successful, and we will continue to test what parts need to be
tested, do what machining needs to be done, and continue to add what
new ideas to our project that we can come up with. There are no
problems with our project currently or any that we can foresee in the
coming weeks and we should be finished with our project well within our
schedule.

**Hours worked:** 8.5