Project Identity
Modified Communication System for Client with Disabilities
Week 2: 9/10 – 9/16/06
Stephanie Santos

Work Completed
The tasks completed this week were essential to getting our project underway. All of the parts were reviewed and the orders were finalized. Now that all of the necessary parts are on their way, the project is much closer to being completed. There was originally some discrepancy as to how to supply the LCD monitor with the appropriate power source, but this issue was resolved and an appropriate rechargeable battery supply was ordered. Once all parts are received, the assembly and testing of the entire system can begin. In the mean time, we need to work on the encasement designs for both the LCD monitor and the base of the joystick. The joystick base will need to be compact, weatherproof, and mountable to the arm of the client’s wheelchair. The LCD monitor encasement will also need to be compact, weatherproof, and mountable to a metal rod that attaches to the side of the client’s wheelchair (the same mounting rod for the client’s DynaVox). I have already begun to sketch some preliminary designs for the monitor encasement, which can be shown in the following figures:

Figure 1: Exterior View of Front Panel of LCD Monitor Case
Figure 2: Interior View of Front Panel of LCD Monitor

Figure 3: Exterior Sideview of LCD Monitor Case
These are just some basic preliminary sketches just to get us started on a design. These will no doubt have to be resized or modified later on. Also, there is still uncertainty over the sizes and shape of the mounting brackets.

Some further research was done on the operating software of the client’s current DynaVox DV4™ to ensure compatibility. The product website provided the following information: the DynaVox DV4™ runs on the WinCE® operating system and is programmed with the Gateway Series 4language application software (developed by Joan Bruno, PhD). The technical support staff also provided some useful information, explaining that any joysticks that are mouse-emulating are usually compatible with the DynaVox operating system, however there was no guarantee of device compatibility and I was ensured that the only way to be certain if our joystick would be compatible with the DV4™ is to test it. This was somewhat helpful.

**Future Work**

Our work for the future weeks will mainly consist of assembling and testing parts once they are received. We will also be making modifications to the preliminary sketches I have drawn and making new designs for the joystick casing. The issues with the mounting setups will also have to be resolved in the future. Once the designs are complete and settled on, it will be decided whether it will be more cost effective to build these parts in the machine shop or to order them from a casing manufacturer.
Project Review

The accomplishments made this week have put our project on the right track. Since we have ordered our parts, this is no longer an issue, which keeps us on schedule with our original timeline. Having the preliminary sketched designs for the monitor case also puts us in a good starting position to get the casing designs moving along. Moving at this same pace, our project should progress steadily at our desired rate.

Hours worked: 10