Week 5/6 Progress Report
Freely Adjustable and Accessible Keyboard and Mouse Pad for Client with Cerebral Palsy

Team # 6
Nolan Skop
Stephen Heussler
Parts Update

- Parts Received
  - Potentiometer
  - Large Keycaps (ENTER & Spacebar)
  - Female header receptacle
Work Completed

- Measurements of female header receptacle, and potentiometer
- Incorporated into our PCB design
- PCB near completion
Work Completed (cont’d)
Work Completed (cont’d)

- Used the ~5.16 volt source from the USB to power the LED circuit
- Replace previous resistors used with 9v source with 150 ohm resistors
- Eliminates the need for batteries or a high maintenance power source
Work Completed *(cont’d)*
Work Completed (cont’d)

- Soldered one switch to female header receptacle on control board
- Used computer software to program the switch
- Programmed key to perform basic keyboard commands
  - Characters, Enter, Spacebar, Tab, Delete
- Programmed key to perform the functions of a mouse
  - Left click, Right Click, Double Click
  - Move left, right, up and down (course/fine adjustment)
Work Completed (cont’d)

- Narrowed down the final keyboard design into two possibilities
- A four row and a five row layout
- Decide which best suits our client
Work Completed (cont’d)
Future Work
Future Work (cont’d)

- Finish PCB, double check, and have it ordered
- Decide upon 4 or 5 row keyboard
- Use those measurements to begin external architecture
- Mansfield Supply for hinges, locking mechanism, rubber bottom
Project Review

- Most accomplished two weeks
- Internal design is near completion
- Making sure PCB is correct is essential
- Layout measurements finalized – begin making external structure
Hours Worked (two weeks)

- Stephen Heussler
  ~25 hours

- Nolan Skop
  ~25 hours