Work Completed:

The final week of the devices fabrication was a very busy one. Each of us spent many hours putting the final touches on the operation of the easel.

Frank spent the last day at the shop welding little odds and ends that needed to be finalized before the device could operate successfully. This included making handles for the underarm clamps of the base, fabricating a bracket to connect the easel face to the 80/20 track, and making a coupler for the gear motor to connect to the screw drive. He also welded the two extra pads to the floor of the carriage for added support and a stopper along the track for the tilting actuator. Using the box Adam made, Frank bought self tapping screws and using the 1/8” threaded rod connected the box to the motor, and screwed the box to the end of the screw drive.

Jon completed the integration of the circuit components and wiring through the device. This task included spending much time soldering wires, drilling holes through the aluminum frame for windows for wires and ports, and other tedious electrical tasks. Jackie was able to assist in some of the soldering, as well as give Jon a hand in much of the wiring. She also set shrink tube on the wires as Jon finished connecting the electronics.
Adam finished building the remodeled box to house the gear motor after the first one was built a bit too short. Using sheet metal, he riveted the box together and put holes in the cover of the box for its attachment to the caps of the 80/20 tracking. He also enjoyed drilling some holes in the angle brackets for the tracking on the base of the easel.

Future Work:

Final touch ups and patient testing of the device are left for next week. We are expecting plastic end caps to go into the top tubing pieces which are being shipped within the next week or so. The easel has been planned to be painted dark blue, keeping the UCONN theme in the design. Last minute touch ups and other small tweaks in the devices operation may be worked on in the next week or two.

Project Review:

The easel has been fabricated with all major aspects working accordingly. It is completely operational and movements are fluid with the design. It is still fully collapsible with the integrated circuitry. A few safety features and last minute touch ups are being taken care of, and after testing the easel next week with a mock patient and wheelchair we will finalize any complications and last minute tasks. It is a great relief to see the easel functional, however, and we are all very proud of our hard work and effort in the device.
Hours Worked:

Frank - 20 hours
Jon – 28 hours
Jackie – 20 hours
Adam – 20 hours