Easel 5000
Week 4
February 10 - February 17, 2006
Justin Yu
Work Completed

Machining

The primary concern for this week was the beginning of construction for the easel. With most of the parts arrived and machining work started, construction could begin since most if not all of the design work and research is already completed. Machining of parts took place in the form of drilling holes in appropriate locations on the extrusion. Further machining was done by tapping holes out for threading screws into the ends of extrusions. These processes were done either in the senior design lab or in the machine shop using tools they provided.

Construction

With machined parts, construction of the easel was started. The easel base was constructed in its entirety. This process involved using end fasteners to build each rectangular frame, and then more end fasteners with smaller extrusions to connect the two frames. In this manner, the base has the concept of a c-clamp for the artist's wheelchair tray. The linear track was assembled and attached onto the base using standard 80/20 t-nuts. The mobility of the track is much stiffer than anticipated, so use of the l-handle brake may be unnecessary. This will be discussed much further after full assembly of the easel and during the testing phase of the product.
Drilling access holes into square extrusion for easel base

Easel base construction in the machine shop
Side view of constructed easel base

Top view of constructed easel base
Contacts

Further contact was made with Patty Mitchell from Passionworks Studios. She has given us an update and informed the group about the type of surface the artist primarily works on. She informed us that the artist works on anything from 9” x 36” sheets of thin metal, sheets of paper, and a range of 8” x 10” to 20” x 24” canvases.

Future Work

Discussion about the artist's painting surfaces will be necessary. Although design to the easel may not be necessary, having the precautions and dialogue about different options would be helpful. Patty Mitchell will be kept in contact for any additional updates for the types of surfaces the artist works on to better pinpoint improvements to easel design. As the final shipment of 80/20 parts arrive, further construction and machining of parts and units for the easel will continue.

Project Review

The team is on good track for the semester thus far. All of the research and design processes are coming to a finalized end as construction is taking place and actual assembly of each subunit for the easel gets pieced together. Although new information arrives constantly, involving changes to be made to the easel's construction, after discussion and dialogue among team members, the problems are always handled promptly. Initial construction should be completed in the next two weeks to begin analysis and testing with the possibilities of a redesign or design improvements. The following is the updated semester schedule.
**Hours Worked**

11 hours.