Easelectric
Group #4

Weekly Report
Week #11
April 14, 2006
Team Report
Work Completed

This week involved ironing out a number of small details that arose once the easel was fully assembled and functional. One of the most significant problems encountered was the amount of play that was present in the canvas attachment. Although it is welded to the carriage on the horizontal screw drive, the small play between the carriage and tracking is accentuated tremendously over the length of the canvas attachment. The thin lightweight aluminum that the attachment is fabricated from also has a significant degree of flex. As a result, the canvas attachment has upwards of an inch of play and flex.

To solve this problem Adam and Jon devised a system that involved mounting additional tracking on the easel frame and a horizontal stabilizing bar across the canvas attachment. Three additional slides will mount to the tracking and allow the canvas to continue to travel both vertically and horizontally, yet be stabilized much more securely than the original attachment provided.

In addition, Jackie brought the easel home and painted it with a dark blue. All tracking and actuators were taped off prior to painting. The result was a very professional looking easel with a nice contrast between the painted surfaces and unpainted aluminum tracking and actuators. The paint job was performed in two separate steps; first the frame and canvas attachment was painted, then the base. Each part was given sufficient time to dry. The painted easel can be seen in the photos following.

Frank continued to work out details with the actuator attachments and base clamp. He replaced the original hex bolts holding the clamps into place with a much simpler, yet more efficient eye bolt and wing nut system. The same was done to the tilt actuator attachment at the back of the easel frame to allow for easy removal.
Future Work

Over the next week, we will be continuing to better the easel and take care of finishing touches. The modification of the canvas attachment will be an important detail that is tackled this week. The required pieces have already been ordered, so once they arrive, fabrication of the new tracking system can begin. We will also be putting together the PowerPoint presentation and project presentation board that will accompany the presentation on Senior Design Day in a couple of weeks.

Project Review

Our project has continued to come along well throughout the semester. With the project assembled and painted, we are finally able to see the benefits of our work paying
off. We have continued to be successful as a team and work well together. We have managed to meet deadlines and have all required work completed. It is rewarding to know that our work will benefit someone with a physical disability and allow them to accomplish tasks that troubled them.