Easel 5000
Week 9
March 24 - March 31, 2006
Justin Yu
Work Completed

PCB

The PCB was finalized. The final version of the board should be arriving to the lab shortly so that soldering can happen and get the LED system finished. The final version of the PCB entailed a larger board that perfectly fit the enclosure ordered. The components were moved around slightly so that the LEDs were spaced out over the length of the enclosure to allow for minimum wiring from the PCB out to the surface of the enclosure. After the components are soldered on, testing of the lighting system will mark the finished product of the easel prototype.

Machine Shop

With the arrival of the dynamic pivot joint, a few other pieces had to be machined in order to complete all mechanical construction of the easel prototype. Rubber strips were added to the canvas holder in order to increase the surface friction. Rubber pads were also added to the easel base where the base would rest on the artist's tray. The entire design of the easel now relies on the two-extension arm system, which provides for much more stability and features a built-in safety system. If only one of the locks is engaged on one side, it is enough to still hold up the easel in case the other side lock is accidentally slipped out of place.

Testing

With all the mechanical aspects of the easel prototype finished, testing for the easel took place. Using a considerable amount of "painting" force at various positions, it was seen that the easel was able to perform very well. The torsional problems that were previously observed no longer exist with the two arm system.
**Future Work**

Once the PCB arrives, soldering all the components onto it will be one of the last steps to completion of the project. The PCB will be mounted into the plastic enclosure that arrived and the LED system will be attached onto the easel. The battery case also needs to be attached to the easel, and when the end caps arrive, they will be installed on all the extrusion ends. Testing of the LED system will be the last step.

**Project Review**

This upcoming week will wrap up all the loose ends for the project. The finished prototype will be complete by the end of the week if not sooner. After all the parts and pieces arrive, it is only a short matter of time before the project is complete.

**Hours Worked**

11 hours.