Easel 5000
Week 4
March 3 - March 17, 2006
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Work Completed

Using PCB Express

This week, the major portion of the work done with the project was dealing with the LED system. The next phase for the LED system was to construct a PCB for minimizing space used on the easel. In order to produce a PCB, first, the program called PCB Express had to be learned. Within this program, a visual basis of the circuit had to be drawn, very much like one would draw in PSpice. A couple of custom pieces had to be added to the PCB inorder to fit our specific circuit. A specific foot print for the potentiometer had to be drawn up and checked. Afterward, the PCB itself had to be created as a template in order to be produced by the PCB company. The PCB organization took the most time. In order to fully have an organized PCB, placement of the slots for all the circuit components had to be arranged in a fashion where all the correct nodes had to be connected without interfering and crossing over other connections. After PCB organization, the arrangement with all the connections were checked over and sent for review by Chris.
Radio Shack

A trip had to be made to Radio Shack in order to pick up one of the remaining pieces to complete the LED system. Since 9.6V batteries do not have exactly the same methods of connection as other power sources, a connector had to be used to make it compatible for the LED system we are to be working with. The part was confirmed to be at the Radio Shack closest to UConn, and a trip on Tuesday, March 14 was made to the Radio Shack in order to pick it up.

Parts Order and Order Follow up

Unfortunately, one of the parts orders made before spring break to Air Inc. was lost. The piece that was most important was the dynamic pivot joint which would get incorporated into the design, making the easel have two separate arms attached at the base. The hope of this design was in order to make the easel much more stable. Since this parts order was lost, a new one was completed and submitted. An order follow up was also done for
OKWEnclosures. Jeff Dutches was contacted and it was found that the battery encasement ordered was back ordered. In order to rectify this Jeff made some accommodations and sent out a similar product to fit our timeline. The potentiometer and knob were received from Digikey, and their part numbers were checked.

**Future Work**

Work with the LED system needs to be continued although it is coming close to completion. The PCB for the LED system is well underway now. All that is left is to polish the PCB board, construct a light bar from PVC or aluminum casing, PCB board construction/wiring, and final mounting. Aside from the LED system, mechanical analysis of the easel itself will be looked into further. Further testing of the easel is required in order to perfect the prototype. Heavy product testing will take place shortly.

**Project Review**

The project is on good track. All of the subunits of the easel are close to completion, and some are basically completed. Unfortunately, one of the parts orders made to Air Inc. was lost, so aspects of the easel's stability has to be put off for a short amount of time until the parts arrive. In addition, it was found that two other parts orders that did go through had parts backordered, so they would not be arriving on time as per expected. With only three weeks of building time left, this crunches on the timeframe of the project. However, given that the parts do arrive eventually, the easel prototype should be finished well on time. The final stages of the project still allow for ample time to complete construction and then do extensive product testing.
**Hours Worked**

Justin - 6 hours

Seth - 6 hours

Alison - 11 hours