Easel 5000
Week 11 Group Report
April 7 - April 14, 2006
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Work Completed

Writing

This week, focus has been on writing the user's manual and the final report. A lot of time has been writing in order for the user's manual to look very good considering it will be sent to Passionworks along with our final project. A lot of material had to be covered in detail for both of these documents and compiling everything together was not an easy task. Also, since the easel will be broken down into a few components for shipping, writing assembly instructions was necessary for the user's manual.

During this week, the mechanical analysis, originally done for Designs 1-4 and the optimal design, was recalculated using the new material weights and dimensions of the easel prototype to ensure working limitation and provide material for the final report and user’s manual. New diagrams were developed using Visio to aide in the calculations, and force and stress analyses were completed.

CAD and Visio Drawings

Aside from writing, a significant amount of time was spent making drawings to insert in the documents mentioned before. Since all of these drawings had to be made from scratch, time consumption for this process was high. Some examples of these illustrations incorporated into the User’s Manual and Final report are exhibited below.
Washers that may need to be replaced.
NOTE: REPEAT PROCESS FOR OTHER SIDE OF EASEL5000 BASE
Prototype Testing

This week also saw testing of the easel. From emails and information obtained earlier this year via phone conversation with Patty Mitchel, Team 3 had a reasonable knowledge of the types of motion restrictions our client has. A group member was restrained in a way that limited mobility to that of our client, was asked to use the easel, and was successfully able to do so.
Future Work

There are a few loose ends that need to be considered for the project. There may be need to get small label stickers for the different easel components to facilitate assembly. Otherwise, future work will consist of the construction of the group’s poster and the Power Point presentation that will be given in two weeks. In addition, if any design additions come to light that will further enhance the easel, those options will be explored appropriately and shipping and packaging of the device will be looked into.

Project Review

The easel has been completed. The prototype works and the documentation is done. The prototype will be ready to ship by the end of the semester.

Hours Worked

Alison – 30 hours
Seth – 31 hours
Justin - 38 hours.