Fundus Reading Hood

Client: Dennis G. Hafford

Team Members:  Leah Brandon (Leader)
                Adam Dahlen (Communications)
                Nathan Kleinhans (BWIG)
                Sara Worzella (BSAC)

Advisor: John Webster

November 24 to December 1, 2005

Problem Statement

The goal of this project is to develop a monitor hood that will block ambient light. This hood must comply with the following specifications. The length must be adjustable and extend out 2 ft while keeping the monitor viewable at any length. It must be easily removable with a small footprint when stored, or will open up without requiring any space allowing regular viewing modality. There cannot be a footprint behind the monitor and it must taper to a closed viewing port of approximately 8 1/4” by 2 3/8”. Also, the hood should be self-supporting (no legs when extended) with an adjustable angle of view to allow grader to maintain good posture.

Summary of Team Accomplishments for the week

• Completed corner pieces
• All hood pieces constructed
• Finished presentation parts
• Tested prototype
• Obtained monitor for presentation

Current Week’s Goals

• Finish all prototype construction
• Re-test prototype
• Have all presentation materials finalized for Dec. 2

Project Difficulties

• When testing our prototype earlier this week complications arose as to the moment arm of the extender pieces and the subsequent torque created at the corner pieces. This created instability and severe drooping for the entire hood. We are currently working to rectify the situation and have several suggestions to alternatives if our current solution is not deemed adequate by our client. This will be addressed in more detail during the future work portion of the presentation held on Dec. 2nd at 12:41pm in the ECB.

Project Schedule

Week1-2    worked on separate project
Week 3     meet with client, literature search, develop PDS as a team
Week 4     brainstorm design ideas
Week 5     decide on three alternative designs
Week 6     work on oral presentations and written report
Week 7 oral presentations: hand in report, PDS, design notebooks
Weeks 8-11 decide upon final design, work on prototype
Weeks 12-14 prepare for final presentations (Dec 2), finish final design
Week 15 hand in written report and notebook to advisor (Dec 7) and final advisor meeting (Dec 9)

Activities

Leah Brandon:
Prototype  24.5 hrs
Presentation 1 hr
Progress report .5 hrs
Total  26 hrs

Adam Dahlen:
Prototype  8 hrs
Presentation  8 hrs
Communications 1 hr
Total  17 hrs

Nathan Kleinhans:
Prototype  12 hrs
Presentation  1 hr
Total  13 hrs

Sara Worzella:
Prototype  17.5 hrs
Presentation .5 hr
Communications 1 hr
Total  19 hrs

Team Total Hours this week: 75 hrs
Team Total Hours to date:  210.33 hrs

Expenses:

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<tr>
<th>Item</th>
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<tbody>
<tr>
<td>Velcro</td>
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