Project: A Child Passenger Safety Seat (Child Seat)

Team Members:
1. Ross Gerber—Team Leader
   Email: rgerber@wisc.edu
2. Aman Ghotra—Communication
   Email: asghotra@wisc.edu
3. Erik Bieging—BWIG
   Email: etbieging@wisc.edu
4. Karim Mahamud—BSAC
   Email: ammahamud@wisc.edu
5. Miguel Benson—BSAC
   Email: miguelbenson@wisc.edu

Advisor:
Mitch Tyler, PhD
Department of Biomedical
Phone: (608) 262-5112
Email: metyler1@facstaff.wisc.edu

Client:
Tom Brazelton, MD
Department of Pediatrics
Phone: (608) 263-8901
Email: brazeltoniii@facstaff.wisc.edu

Date of Progress Report: 10/13/05

Problem Statement:

The goal of our project is to develop or improve the current method of transporting a child or infant in an ambulance on a stretcher. The method or device developed must be better than the current methods. A new method or device must be collapsible, and compatible with current ambulatory stretchers. Most importantly, the final device must meet all federal safety child seat guidelines.

Restatement of Team Goals from Last Week:

The goals for this week will be to start work on our prototype and finish and practice our presentation.

Summary of Accomplishments This Week:

This week we met and did a bit more brainstorming to finalize our design. We also worked on the presentation as well as graphics for the presentation. More research was done to finalize some of our dimensions. We also met Thursday night to practice the presentation.
**Individual Goals for this week:**

1. Ross: Present and begin work on prototype, assign tasks for each component, order materials  
2. Aman: Present and begin work on prototype, communicate with client, work on presentation  
3. Erik: Present and begin work on prototype, update the website  
4. Karim: Present and begin work on prototype, go to BSAC meeting  
5. Miguel: Present and begin work on prototype, go to BSAC meeting

**Statement of Team Goals for this week:**

The goals for this week will be to have a successful presentation, start work on the prototype, and look at ordering materials

**Tentative Project Schedule:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/02/05</td>
<td>Formed teams and assigned roles</td>
</tr>
<tr>
<td>09/08/05</td>
<td>Met our client</td>
</tr>
<tr>
<td>09/16/05</td>
<td>Develop PDS; Brainstorm possible designs</td>
</tr>
<tr>
<td>09/23/05</td>
<td>Start writing mid-semester reports</td>
</tr>
<tr>
<td>10/01/05</td>
<td>Evaluate Ideas and work on power point; Peer review mid-semester reports</td>
</tr>
<tr>
<td>10/08/05</td>
<td>Mid-Semester Presentation; Design notebooks, PDS, mid-semester reports due</td>
</tr>
<tr>
<td>10/15/05</td>
<td>Choose a final design</td>
</tr>
<tr>
<td>10/15/05 – 11/26/05</td>
<td>Work on the final design; Testing; Modifications</td>
</tr>
<tr>
<td>11/26/05</td>
<td>Work on the final power point, paper and PDS</td>
</tr>
<tr>
<td>12/15/05</td>
<td>Poster Presentation; Final paper, PDS, evaluations and design notebooks due</td>
</tr>
</tbody>
</table>

**Difficulties:** group leader is forgetful

**Activities/Accomplishments:**

<table>
<thead>
<tr>
<th>Names</th>
<th>Activities</th>
<th>Time (hrs)</th>
<th>Running Total (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ross</td>
<td>Made 3D models, movie, presentation</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Aman</td>
<td>Contacted client, schedule meeting, presentation</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Erik</td>
<td>Presentation</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Karim</td>
<td>Presentation</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Miguel</td>
<td>Presentation</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>24</strong></td>
<td><strong>93</strong></td>
</tr>
</tbody>
</table>

**Weekly Goals for Fall 2005:**

- Week 1 (9/2/05-9/4/05)
  - Form Teams, Assign Roles, Make an appointment with client
Week 2 (9/5/05-9/11/05)
- Meet Client, Do background research, Set up team website, Begin working on PDS,

Week 3 (9/12/05-9/18/05)
- Finish rough draft of PDS, Meet client for demonstrations, Discuss PDS with advisor, Finish up any remaining research, Email researchers Levine and Bull

Week 4 (9/19/05-9/25/05)
- Discuss PDS with client, Begin brainstorming design ideas, Collect estimates for designs brainstormed (i.e. cost, dimensions, safety tests to be used, pros and cons)

Week 5 (9/26/05-10/2/05)
- Finish brainstorming, Finalize a Design as a group, Show designs to Client, Get consent from client and decide on one Design, Order pertinent supplies (i.e. materials), Research materials and companies if needed, Look for various prototype tests and facilities

Week 6 (10/3/05-10/9/05)
- Begin constructing prototype, Prepare for Mid-semester presentations and begin writing the Mid-semester reports

Week 7 (10/10/05-10/16/05)
- Mid-semester Presentation, Invite Client, Keep building prototype

Week 8 (10/17/05-10/24/05)
- Work on the prototype

Week 9 (10/25/05-10/30/05)
- Finish the prototype, Test prototype, gather data, make observations

Week 10 (10/31/05-11/6/05)
- Modify prototype based on testing

Week 11 (11/7/05-11/13/05)
- Finish Building the prototype

Week 12 (11/14/05-11/20/05)
- Collect data and retest the prototype

Week 13 (11/21/05-11/27/05)
- Make last minute adjustments to the prototype, Begin preparing for poster presentation and Final Paper

Week 14 (11/28/05-12/4/05)
- Final Presentation, Invite Client for poster session

Week 15 (12/5/05-12/10/05)
- Turn in notebooks, final report and evaluation form, Give the Prototype to client, Meet Client