Project: A Child Passenger Safety Seat (Child Seat)

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Date of Progress Report: 9/29/05

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 finish brainstorming and decide on a design to proceed with. We will also pass around the Gant chart to finish it up. Finally, we will attempt to meet with Dr. Brazelton and his team to ask them to critique our ideas.

Summary of Accomplishments This Week:
This week we brainstormed and modified our existing ideas. We also sketched up the idea in ProE (a 3D modeling program). We scheduled a meeting to meet with our client to present our
preliminary ideas on Friday during class. We also had a group meeting on Thursday night to discuss the future of the class.

**Individual Goals for this week:**

1. Ross: Research materials, get progress report in on time
2. Aman: Research materials, communicate with client
3. Erik: Research materials, update the website
4. Karim: Research materials, go to BSAC meeting
5. Miguel: Research materials, go to BSAC meeting

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

The goals for this week will be to finalize our design and make changes based on the clients recommendations. We will also begin to research materials and brainstorm different methods of locking the seat in different positions.

**Tentative Project Schedule:**

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

**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</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Aman</td>
<td>Contacted client, schedule meeting</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Erik</td>
<td>Updated website, research</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Karim</td>
<td>Researched</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Miguel</td>
<td>BSAC, brainstorm</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
<td><strong>54</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