Project: A Child Passenger Safety Seat (Child Seat)

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Date of Progress Report: 11/10/05

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 putting the prototype together.

Summary of Accomplishments This Week:
This week we were able to construct the sliding strap mechanism, cut the tracks in the backrest, add restraints to the seat back, and construct the leg rest.

Individual Goals for this week:
1. Ross: Construction
2. Aman: Assist Karim on his parts
3. Erik: Construction of sliding back rest
4. Karim: Construction of locking mechanism
5. Miguel: Construction of sliding shoulder strap

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

This week we are going to finish the large components of the design and hopefully begin tweaking different features. If all goes well, we may be able to add fabric and padding for aesthetics.

**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:** Most of the group had a lot of tests this week so it was difficult to get in the shop.

**Activities/Accomplishments:**

<table>
<thead>
<tr>
<th>Names</th>
<th>Activities</th>
<th>Time (hrs)</th>
<th>Running Total (hrs)</th>
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<tr>
<td>Ross</td>
<td>Construction, progress report</td>
<td>10</td>
<td>43</td>
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<tr>
<td>Aman</td>
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<td>1</td>
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</tr>
<tr>
<td>Erik</td>
<td>Construction</td>
<td>1</td>
<td>22</td>
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<tr>
<td>Karim</td>
<td>Construction</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Miguel</td>
<td>Supply pick up</td>
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<td>24</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>16</strong></td>
<td><strong>142</strong></td>
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**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