

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: 12/1/05

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:

This week we will completely finish the leg rest and attach the base to the back rest. We will also try to cover the unit with fabric and padding.

Summary of Accomplishments This Week:

In the past two weeks, we have accomplished a great deal on our child safety seat. The seat is now completely functional and we were able to cover it in padding and then fabric. We also conducted testing to make sure that children fit comfortably in the device and also that the child

seat was compatible with the stretcher. This week we finished everything and also put together a poster presentation and practiced it.

Individual Goals for this week:

1. Ross: Presentation and paper
2. Aman: Presentation and paper
3. Erik: Presentation and paper
4. Karim: Presentation and paper
5. Miguel: Presentation and paper

Statement of Team Goals for this week:

Finish the paper and present.

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: water in ECB

Activities/Accomplishments:

Names	Activities	Time (hrs)	Running Total (hrs)
Ross	Construction, presentation	25	76
Aman	Construction, presentation	25	60
Erik	Construction, presentation, trip to hospital	25	53
Karim	Construction, presentation, trip to hospital	25	53
Miguel	Construction, presentation	25	54
Total		125	296

Weekly Goals for Fall 2005:

- + Week 1 (9/2/05-9/4/05)
 - o Form Teams, Assign Roles, Make an appointment with client
- + Week 2 (9/5/05-9/11/05)
 - o Meet Client, Do background research, Set up team website, Begin working on PDS,
- + Week 3 (9/12/05-9/18/05)
 - o 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)
 - o 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)
 - o 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)
 - o Begin constructing prototype, Prepare for Mid-semester presentations and begin writing the Mid-semester reports
- + Week 7 (10/10/05-10/16/05)
 - o Mid-semester Presentation, Invite Client, Keep building prototype
- + Week 8 (10/17/05-10/24/05)
 - o Work on the prototype
- + Week 9 (10/25/05-10/30/05)
 - o Finish the prototype, Test prototype, gather data, make observations
- + Week 10 (10/31/05-11/6/05)
 - o Modify prototype based on testing
- + Week 11 (11/7/05-11/13/05)
 - o Finish Building the prototype
- + Week 12 (11/14/05-11/20/05)
 - o Collect data and retest the prototype
- + Week 13 (11/21/05-11/27/05)
 - o Make last minute adjustments to the prototype, Begin preparing for poster presentation and Final Paper
- + Week 14 (11/28/05-12/4/05)
 - o Final Presentation, Invite Client for poster session
- + Week 15 (12/5/05-12/10/05)
 - o Turn in notebooks, final report and evaluation form, Give the Prototype to client, Meet Client