Title: Presurgical Maxillary Orthopedic

Names: Sarah Schram, Elan Bomsztyk, Aaron Kroner, Shannon Kane, Alissa Garman

Date: 10/25/01-10/31/01 (Happy Halloween!)

Problem Statement:
A cleft palate is a deformity in which the palate is not completely formed and the nasal cavity opens into the mouth. This deformity occurs in approximately one out of every 800 infants. Often times there is a need for pre-surgical manipulation of the palate; this is currently done through the use of an orthopedic. The current devices being used all have limitations, including: restricted movement, non-universal applications, and inefficiency. Our goal is to design an orthopedic device with a universal mechanism which encompasses the benefits of current devices, allows movement in three dimensions, and is easily adjustable.

Restatement of Team Goals:
-Select final design
-Prepare more concrete specs for design. Including force diagrams, dimensions, etc.

Summary of Accomplishments:
-Prepared design matrix, which led us to decide to go forward with the "baby beautiful" design. Right now we will only work on the top half and not worry about the bottom roller design. If time permits we will start work on the roller portion.
-Drawings of the design were prepared with Iron Cad.
-Measurements of the example palate molds were made. Our prototype will be built to fit these models.

Statement of Team Goals:
-Order Parts. We will hopefully visit the ME shop on Friday.
-Start building when the parts become available

Project Schedule:

09/03/01-09/05/01: Choose Project
09/06/01-09/12/01: Meet with Client
09/13/01-09/19/01: Prepare Problem Statement, Timeline, PDS, and Background Research, and conduct Patent Search
09/20/01-09/26/01: Brainstorm
09/27/01-10/03/01: Continue to Brainstorm, Research and Develop Ideas
10/04/01-10/10/01: Work on Midsemester Report
10/11/01-10/17/01: Finish and Give Midsemester Report
10/18/01-10/24/01: Continue working on possible solutions
10/25/01-10/31/01: Select Final Design. Determine Specifications for Final Design
11/01/01-11/07/01: Order Parts. Start Building
11/08/01-11/14/01: Build

11/15/01-11/21/01: Test
11/22/01-11/28/01: Test and start Final Report
11/29/01-11/05/01 Finish Final Report
11/06/01-11/12/01: Give Final Presentation

Difficulties:
-nope

Activities:
*hours will be in man hours (if all five of us meet together for 1 hour it will be recorded as 5 man hours)
Group:
-met as group in class to discuss progress (7.5 hr)

Sarah:
-made measurements of molds of cleft palate (0.5 hr)
-wrote progress report (.25hr)

Shannon:
-finished setting up paper (2hrs)

Aaron:

Alissa:
-finished powerpoint presentation (4hrs)

Elan:
-Made drawings of design using Iron Cad (3hrs)

Total: 154.25 hrs