Title: Mouth stick to facilitate quadriplegics' use of computer keyboard

Team Members:
Liz Thottakara (Team Leader)
Dan Hartman (BWIG)
Yim (Cindy) Chan (Communications)
Emily Putzer (BSAC)

Client:

Prof. John Doyle
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University of Wisconsin
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Steve Christianson
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Reporting Period:
Mar.19 -Apr. 2

Problem Statement:

To design a device that will allow quadriplegics to more easily depress keys on a computer keyboard without causing the wearing or chipping of the teeth caused by the current mouth stick design.

Restatement of Team Goals:

- Put together sections of report written by each team member into one paper
- Create more detailed sketches of design to include in presentation
- Talk to materials science engineering professor/researcher about plastics for mouthpiece.
- Make appointment to meet with Dr. Doyle to discuss progress of project thus far

Summary of Accomplishments:

- Met with Dr. Doyle and received input from him about how we should modify our design to include a mouthpiece that was more fitted to the teeth and would distribute force more equally
- In addition to Dr. Doyle's ideas for modification we also came up with a modification idea that would use only one sliding track instead of the two that are shown in our design picture in the mid-semester presentation.
- Discussed tasks for remainder of semester
  -AutoCAD drawings
  -Finding materials for stick portion of device
  -Working with dental lab to make mouthpiece
  -Building prototype
- Asked Mr. Christianson if he could have dental impressions made so they would be readily available if we decide to use them.

Statement of Team Goals:

- Make appointment to visit dental lab this week
- Determine how much of the mouthpiece can be made at the dental lab
- Get started on autocad drawings

Project Schedule:

Week	Date	Activities
1	25 January	form teams, select project, contact client
2	1 February	literature search
3	8 February	Meet with client; develop understanding of project; develop PDS
4	15 February	Brainstorm, revise PDS
5	22 February	brainstorm; evaluate designs; meet with Steve Christianson at his home
6	1 March	Revise PDS, evaluate designs, decide on final design
7	8 March	work on design, work on presentation
8	15 March	Mid-semester presentation hand in written report; advisor review of design notebooks
9	22 March	Meet with Dr. Doyle
10	29 March	SPRING BREAK
11	5 April	Visit dental lab; work on design
12	12 April	work on design
13	19 April	work on design
14	26 April	work on design
15	3 May	prepare poster
16	10 May	Final Poster Presentation Hand in final report and notebook to advisor
17	13-17 May	final meetings with advisors

Difficulties:

- We all have very little or no experience with autoCAD programs

- We are not sure if we'll need to use the machine shop (dependant on how much we can get made in the dental lab) or when we would have to sign-up to use it.

Activities:

Meeting with Dr. Doyle (3/22/02): 1 hour
Meeting at Wendt Library (4/1/02): 1 hour

Liz :

- Emails & progress report (1 hr.)

Cindy:

- Call Steve to make appointment with Monica
- Call the dental lab to make appointment for this week

Dan:

- Updating webpage (45 min)
- Practicing presentation (30 min)

Emily:

- 1.25 hours teaching myself IronCAD and drawing a rough sketch.
- ran into some problems when the program shut down on me twice.

Running Time (since mid-semester presentation): 2 hours