Project Title: Sensory Substitution Device for Hearing Impairment

Team Members:
Ryan Thome, Co-Team Leader        thome@wisc.edu
Sarah Offutt, Co-Team Leader       offutt@wisc.edu
Amy Weaver, BSAC                    aweaver@wisc.edu
Laura Bagley, Communicator          lbagley@wisc.edu
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Client:
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Advisor:
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Date: 10/7/06 – 10/12/06

Problem Statement:
The goal is to design and develop an auditory substitution device that through the use of a
digital hearing aid and vibro- or electro-tactile stimulation can substitute for regional
frequency hearing loss.

Statement of Team Goals:
1. Meet with client
2. Create Problem statement
3. Begin work on PDS
4. Begin research and design
   a) Research all possible background information.
   b) Research existing solutions
   e) Develop possible design solutions
5. Continue research, design, and testing
6. Write Midterm paper
7. Create PowerPoint presentation
8. Discuss possible final design alternative
9. Finalize design
10. Build and test prototype
11. Present final design

**Project Schedule:**
9/8/06 – Choose team and project, meet with client
9/15/06 – Background research, preliminary design ideas
9/22/06 – Continue background research, develop PDS
9/29/06 – Brainstorm
10/6/06 – Decide on design alternatives
10/13/06 – Work on mid-semester presentation and report
10/20/06 – Give mid-semester presentation, finalize mid-semester report
10/27/06 – Decide on final design
11/3/06 – 11/24/06 – Work on final design
12/1/06 – Finalize design and final presentation, begin work on final paper
12/8/06 – Give final poster presentation, finalize paper
12/15/06 – Final meeting with advisor

**Summary of Team Accomplishments:**
1. Met with client to perform literature search
2. Met as a group to discuss mid-semester design ideas

**Summary of Individual Accomplishments:**
1. Jack updated the website with newest progress report
2. Each member completed individual research
3. Sarah wrote the progress report

**Upcoming Week’s Team Goals:**
1. Make final decisions on mid-semester design ideas
2. Meet to make mid-semester presentation
3. Practice mid-semester presentation
4. Begin work on mid-semester paper

**Difficulties:**
We have yet to encounter any major difficulties.

**Activities:**

Ryan – class meeting 1.0 hr
background research (electro vs vibro stimulation) and brainstorming 1.0 hr
meeting with client 3 hr
team meeting 1.0 hr

Sarah – background research (information to buzzer) and brainstorming 0.5 hr
team meeting 1.0 hr
progress report 0.5 hr
Amy - class meeting 1.0 hr
    background research (computer prog. for sound recognition)/ brainstorming 0.5 hr
    meeting with client 3 hr
    team meeting 1.0 hr

Laura - class meeting 1.0 hr
    background research (locations on body for stimulation) and brainstorming 0.5 hr
    meeting with client 3 hr
    team meeting 1.0 hr

Jack - class meeting 1.0 hr
    background research (frequencies) and brainstorming 1.0 hr
    meeting with client 3 hr
    team meeting 1.0 hr

**Team Total Hours for this week:** 25
**Cumulative Team Hours to date:** 86