Project Title: EEG Biofeedback Device

Team Members:
Ashley Anderson, Team Leader aandersoniii@wisc.edu
Chris Wegener, Co-Leader cjwegener@wisc.edu
Michele Lorenz, Communicator lorenz@wisc.edu
Ryan Thome, BWIG thome@wisc.edu
Shikha, BSAC shikha@wisc.edu

Client:
Daniel Muller, MD, PhD
Medicine (Rheumatology)
Institute on Aging, Mind-Body Center
2605 MSC
UW-Madison
265-2478 dmuller@wisc.edu

Advisor:
John Webster

Date: 09/16/05

Problem Statement:
(Project Description)
The goal of our project is to design and build an inexpensive, portable electroencephalogram (EEG - brain wave monitor) that teaches meditation practitioners to achieve optimal meditation by the presence of EEG alpha and theta waves.

Restatement of team goals:
1. Meet with client
2. Create Problem statement
3. Work on PDS
4. Begin research and design
   a) Research all possible background information.
   b) Research existing solutions
   c) Develop possible design solutions
5. Continue research, design, and testing
6. Begin writing Midterm paper
7. Begin with PowerPoint presentation
8. Discussed possible final design alternative
9. Finalize design
10. Build and test prototype
11. Present final design

**Project Schedule:**
- 09/02/05 – Choose team and project, set up meeting with client
- 09/09/05 – Meet with client, background research, discuss PDS
- 09/16/05 – 10/07/05 – Brainstorm, work on design
- 10/07/05 – Finalize oral presentation
- 10/14/05 – Oral presentations, written report, PDS, and notebooks are due
- 10/14/05 – 11/18/05 – Work on design
- 11/25/05 – Thanksgiving
- 12/02/05 – Final poster presentations
- 12/07/05 – Final written report, notebooks due
- 12/09/05 – Final meeting with advisor

**Summary of Team Accomplishments:**
1. Wrote the Product Design Specification report
2. Wrote the mid-term report.
3. Started with the power point representation
4. Continued background research

**Summary of Individual Accomplishment:**
1. Ashley came up with the circuit design for the amplifier.
2. Everyone did an excellent job with research
3. Shikha wrote the progress report

**Statement of Team Goals:**
1. Decide on several electrode designs and test them
2. Build an amplifier
3. Use sample electrodes to test for best head placement areas.
4. Begin to investigate analogue vs. digital
5. Finish the Power Point representation this week

**Difficulties:**
This week was very busy for each of us with the mid-terms. Therefore, we still could not resolve the trouble that we faced in getting a signal using the sample electrodes and amplifiers in Professor Webster’s lab. Also, we need to start build the amplifier now.

**Activities:**
Ashley – team meetings 1 hr
  --Circuit 1 hr
  --Mid term Paper .5 hr
Chris – team meetings .5 hr
  --Mid semester report 1 hr
Michele – team meetings .5 hr
  --electrode research 1.5 hr
Ryan – team meetings 1.5 hr
-- General research 1 hr
Shikha – team meetings 1.5 hr
-- paper .5 hr

Team Total Hours for this week: 10.5
Cumulative Team Hours to date: 59.5