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
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Client:
Daniel Muller, MD, PhD
Medicine (Rheumatology)
Institute on Aging, Mind-Body Center
2605 MSC
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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. Begin 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. Write Midterm paper
7. Create 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. Meet to discuss several aspects of design
2. Split into two groups to specialize in electrodes and amplifier
3. Continued background research

**Summary of Individual Accomplishment:**
1. Michele and Chris sent emails to electrode suppliers
2. Michele contacted Psych. Dept and Wiasman Center for EEG electrodes
3. Ashley checked out a few books on EEG
4. Everyone did an excellent job with research
5. Chris wrote progress report

**Statement of Team Goals:**
1. Develop a better sense of what type of device is feasible
2. Begin work on PDS
3. Begin brainstorming for design
4. Begin work on website

**Difficulties:**
We are having a bit of trouble deciding where to start on the project. We eventually split up hoping that in pairs/threesomes we would be able to better develop how we can put most of this together.

**Activities:**
- Ashley – team meetings 1.5 hr
  --background research 1 hr
- Chris – team meetings 1.5 hr
  --general research 1.5 hr
- Michele – team meetings 1.5 hr
  --electrode requests 1.5 hr
- Ryan – team meetings 1.5 hr
  --general research 3.0 hr
Shikha – team meetings 1.5 hr
--general research 1.5 hr

Team Total Hours for this week: 16
Cumulative Team Hours to date: 22