

Pulse Oximeter Team

Progress Report #3

2/6/09 – 2/12/09

Team Members

Bogdan Dzyubak – Communicator
Joe Helfenberger—BWIG
Jonathan Meyer—Leader
Matthew Parlato—BSAC

Clients

Amit Nimunkar
Jonathan Baran

Advisor

Dr. John Webster PhD.

Problem Statement

The purpose of this project is to develop a low-cost pulse oximeter for use in developing countries. It will be integrated with an innovative medical technology platform which uses a laptop to record and display patient data. The oximeter must be rugged, durable, inexpensive, and must deliver data to a laptop as an analog signal via a USB interface.

Team Goals

Previous goals for this week

- Finish preliminary research.
- Clarify which circuits are necessary in the final device (i.e. an LED driver circuit, etc.)
- Develop initial circuit draft.
- Begin brainstorming.
- Acquire the international standards for pulse oximeter performance: ISO 9919:2005 Medical electrical equipment - Particular requirements for the basic safety and essential performance of pulse oximeter equipment for medical use.

Goals for next week

- Finish the PDS.
- Finish brainstorming, explore design alternatives.

This week's accomplishments

- Finished research phase of design process.
- Clarified which circuit components are necessary in the final device.
- Began brainstorming.
- Jonathan Baran has requested that the university library purchase a copy of ISO 9919:2005 Medical electrical equipment - Particular requirements for the basic safety and essential performance of pulse oximeter equipment for medical use.

Project Schedule

The table below is a Gantt chart of the projected timeline. Dark colors are used for completed stages, and light colors for incomplete stages.

Tasks	January		February				March				April				May	
	23	30	6	13	20	27	6	13	20	27	3	13	17	24	1	8
Project Development																
Research																
Brainstorm																
Design																
Prototype																
Deliverables																
Progress reports																
Midsemester presentation																
Midsemester report																
Final presentation																
Final report																
Communication																
Advisor Meetings																
Client Meetings																
Website																

Difficulties

Each member of the team had at least one exam this week.

Activities

Date	Time	Team member(s)	Activities
2.6.09	3 h	Team	Discussed the project with Dr. Webster. Discussed the circuit design with Jonathan Baran.
2.8.09	0.5 h	Joe	Updating website
2.10.09	1 h	Bogdan	Research
2.12.09	4 h	Team	Attended EWH event on global engineering, discussed the project with Mary Doherty and Dr. Luke Fortney, discussed cost constraints with Amit Nimunkar and Jonathan Baran, identified circuit components to order,

Expenses

We have not yet accrued any expenses.