

Blood Flow

Week –September 21, 2006 to September 28, 2006

Team Members : Jonathan Baran – Team Leader
Mark Yarmarkovich – Communications
Karen Chen – BSAC
William Stanford – BWIG

Client :

Christopher Green, M.D.
Dept. of Pediatrics
Phone: (608) 263-9608
Email: cggreen@wisc.edu

Advisor :

Walter F. Block
Associate Professor / Department of Biomedical Engineering
Phone: (608) 265-9686
Email: wfblock@wisc.edu

Problem Statement

Our group has not formally met with the client yet, so as of right now all we have is the project description.

This project involves optimizing non-invasive probe design with the following specific goals:

1. Find the best wavelength LED. The system will utilize the wavelength that provides the optimum signal to noise ratio and optimum signal stability. This is the primary goal.
2. Consider the best skin adhesive and optimize other materials.
3. Optimize the overall probe design for stability in children.
4. Integrate the probe with a previously designed system which assesses pulse transit time.

Last Week's Goals

- First meeting with the client to gain understanding of project
- Create a problem statement
- Understand the project and perform further research

Accomplishments

- Meet with client for first time to gain overview of the project
- Learned about past BME project with the same client
- Further researched to gain understanding of the project

This Week's Goals

- Meet with former BME student and discuss project
- Decide which direction to take the project
- Search patent office to be sure device does not already exist
- Work on PDS

Difficulties

- Knowing about already accomplished tasks

Activities/Accomplishments

Group Member	Weekly Accomplishments	Time (hrs)	Running Total (hrs)
Jonathan Baran	Class Time, Client Meeting	3	5
Mark Yarmarkovich	Class Time, Client Meeting	3	5
Karen Chen	Class Time, Client Meeting	3	5
William Stanford	Class Time, Client Meeting	3	5

Blood Flow

Week – October 5, 2006 to October 12, 2006

Team Members : Jonathan Baran – Team Leader
Mark Yarmarkovich – Communications
Karen Chen – BSAC
William Stanford – BWIG

Client :

Christopher Green, M.D.
Dept. of Pediatrics
Phone: (608) 263-9608
Email: cggreen@wisc.edu

Advisor :

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Problem Statement

This project involves optimizing non-invasive probe design with the following specific goals, we are still working to understand and chose the best option for the project, but some ideas are below:

1. Find the best wavelength LED. The system will utilize the wavelength that provides the optimum signal to noise ratio and optimum signal stability. This is the primary goal.
2. Consider the best skin adhesive and optimize other materials.
3. Optimize the overall probe design for stability in children.
4. Integrate the probe with a previously designed system which assesses pulse transit time.
5. Integrate a microprocessor into the circuit to allow a more “portable” device
6. Finalize the circuit and proceed to get a printed circuit
7. Debug the current LabView software

Last Week's Goals

- Gain further knowledge about already existing project
 - Understand circuits and see if they are ideal
- Look into lab which helped the Dose Compliance group with microprocessor for memory storage

- Install software and work with LabView to understand code
- Work on PDS and Mid-semester presentation/paper

Accomplishments

- Began work on mid semester presentation
- Worked to further understanding of project

This Week's Goals

- Finalize course deliverables
 - Mid-Semester paper
 - Mid-Semester presentation
 - PDS
- Continue to gain knowledge of existing project

Difficulties

- Understanding everything which has previously been done

Activities/Accomplishments

Group Member	Weekly Accomplishments	Time (hrs)	Running Total (hrs)
Jonathan Baran	Class Time, Client Meeting,	5	15
Mark Yarmarkovich	Class Time, Client Meeting, research/writing	5	13
Karen Chen	Class Time, Client Meeting, research/writing	5	13
William Stanford	Class Time, Client Meeting, research/writing	5	12

Blood Flow

Week – September 14, 2006 to September 21, 2006

Team Members : Jonathan Baran – Team Leader
Mark Yarmarkovich – Communications
Karen Chen – BSAC
William Stanford – BWIG

Client :

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Dept. of Pediatrics
Phone: (608) 263-9608
Email: cggreen@wisc.edu

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Problem Statement

Our group has not formally met with the client yet, so as of right now all we have is the project description.

This project involves optimizing non-invasive probe design with the following specific goals:

1. Find the best wavelength LED. The system will utilize the wavelength that provides the optimum signal to noise ratio and optimum signal stability. This is the primary goal.
2. Consider the best skin adhesive and optimize other materials.
3. Optimize the overall probe design for stability in children.
4. Integrate the probe with a previously designed system which assesses pulse transit time.

Last Week's Goals

- Obtain project
- Contact Client

Accomplishments

- Decided on group members and positions
- Decided on project #19 Blood Flow
- Established contact with client for meeting
- Researched general topic with information provided by client

This Week's Goals

- First meeting with the client to gain understanding of project
- Create a problem statement
- Understand the project and perform further research

Difficulties

- Understanding requirements of the project

Activities/Accomplishments

Group Member	Weekly Accomplishments	Time (hrs)	Running Total (hrs)
Jonathan Baran	Class Time	1	2
Mark Yarmarkovich	Class Time	1	2
Karen Chen	Class Time	1	2
William Stanford	Class Time	1	2