

Impedance Cardiography

Clients:

Prof. John Webster

Elena S. Bezrukova

Team Members:

Kim Safarik (Leader)

Jacob Meyer (Communicator)

Terra Gahlman (BSAC)

David Schreier (BWIG)

Dec 4th to Dec 10th

Project Statement:

Impedance cardiography is a medical procedure utilized in order to noninvasively analyze and depict the flow of blood through the body. Traditionally, four electrodes are attached to the body, two on the neck and two on the chest, which take beat by beat measurements of blood volume and velocity changes in the aorta. However, this system suffers from degrees of inaccuracy, possibly due to the fact that the electrodes are placed too far from the heart. As a result, it is our collective goal to design an accurate, reusable, and spatially specific impedance cardiograph system that ensures accurate and reliable readings.

Current Design Goals:

- Finalize notebooks and paper
- Discuss and recap on the project with Professor Webster

Project Status Summary:

Last Friday was the poster presentation at which point our team presented a semesters worth of work to our professors and peers. However, this week of design our team focused on preparing a design report as well as fully updating our design notebooks. We hope to discuss with Professor Webster how to continue on with this project in the next semester.

Future Design Expectations:

- Begin working on ventricle detection aspect of the project

- Begin looking into better filter options
- Rethink elastic strap attachment

Work Hours:

Name	Work Performed	No. of Hours/Task	Total Hours
Kim Safarik	Writing Paper	3 hrs	6 1/2 hrs
	Editing paper	1/2 hr	
	Notebook updating	2 hrs	
	Progress Report	1hr	
Terra Gahlman	Compiling paper	4 hrs	7 hrs
	Editing paper	3 hrs	
Jacob Meyer	Communication	1/2 hr	5 1/2 hrs
	Notebook Updating	2 hrs	
	Writing paper	1 hr	
	Editing Paper	2 hrs	
David Schreier	Website updates	1/2 hr	6 hrs
	Writing Paper	3 hrs	
	Notebook Updates	2 hrs	
	Editing Paper	1/2 hr	
Team			25 hrs