

Progress Report 09

Team: Physiologic Metronome (Group 6)

Team Members:

Ben Fleming, *Communicator*
Cole Drifka, *BWIG*
Jeff Theisen, *BSAC*
Adam Pala, *Team Leader*

Week: November 6, 2009 – November 12, 2009 (Week 10)

Client: Dr. Bill Fahl

Department of Oncology
UW School of Medicine and Public Health
fahl@oncology.wisc.edu

Advisor: Dr. Paul Thompson

Department of Biomedical Engineering
UW College of Engineering
pdthompson@wisc.edu

Problem Statement

The purpose of this design project is to develop a metronome device which will maintain a constant, adjustable tempo for the practicing musician. A key feature that the client requires is that the device's tempo-maintaining mechanism be inaudible. Such a feature allows the musician to practice and improve musical performance using a more intuitive approach—one that does not distract the musician while playing music (i.e. audible ticks, as used in conventional metronomes).

Goals from Last Week

- To build and test the circuit
- To get the circuit able to drive the solenoid effectively

Accomplishments

- The circuit was built and tested on a bread board
- The values of voltage and current required to drive the solenoid were determined

Goals for This Week

- To find a way to modify the circuit so that it can provide sufficient output to drive the solenoid
- To begin construction on the mode of attachment to the ear
- To begin soldering the circuit onto the perf-board

Difficulties

- Several midterms approaching for the team-members
- Adam may have to withdraw from this semester

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- We are having trouble getting the circuit to work as desired, and our understanding of how the solenoid works may be lacking

Team Contributions

<i>Team Member</i>	<i>Task(s) Accomplished</i>	<i>Time Spent (Hours)</i>	<i>Cumulative Time Spent (Hours)</i>
Ben Fleming	Group meeting to construct the design	5.0	26.0
Cole Drifka	Group meeting to construct the design	5.0	26.0
Jeff Theisen	Group meeting to construct the design	5.0	26.0
Adam Pala	Although at home to recover, did some research for the design	2.0	23.0

Tentative Project Timeline

		<i>September</i>			<i>October</i>					<i>November</i>			<i>December</i>		
		11	18	25	2	9	16	23	30	6	13	20	4	11	
<i>Product Research and Development</i>	Preliminary Research														
	Brainstorm														
	Decision Matrix														
	Final Design														
	Building of Prototype														
	Testing of Prototype														
<i>Due</i>	PDS														
	Presentations														
	Reports							21							

Current Expenses

- \$61.57 – miscellaneous electronics parts, solenoids