

sdmay18-12: Pilot Biometrics - ECG waveform captures

Week 3 Report

September 15 - September 22

Team MembersZachary Glanz — *Driver Design Lead*Andrew Jones — *Algorithm Design Lead*David Kirpes — *Circuit Design Lead*Justin Bader — *PCB Design Lead*Kory Gray — *Operating Systems Lead*Ryan Gallus — *Communications Lead***Summary of Progress this Report**

This week, the team met with our point of contact at Rockwell Collins to get questions answered and give an update. With the new information, we found the version of linux we are going to use on our ARM M7 microcontroller. We continued our research on the filter design, and have decided to do all the necessary filtering in the software instead of including a hardware filter design. Although we still don't have the ECG sensors, we discovered plenty of sample waveform data we can use. We also updated the team website and put together our project plan, including a schedule with milestones, issue tracking system, and detailed requirements.

Pending Issues

Storage space on the microcontroller is limited, so we need to figure out how to store and process all of the ECG waveform data as it is coming in. We also still have lots of research to do on the device driver design.

Plans for Upcoming Reporting Period

We've settled on a version of micro C linux and will work on putting the OS onto the microcontroller board. Using the lab waveform generators, we will begin interfacing with the ADC.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Zachary Glanz	Researched getting embedded uClinux OS and worked on the team website.	3	10
Andrew Jones	Accessed team website. Researched coding language we are going to use for the device.	3	10
David Kirpes	Researched circuit components. Contributed to project plan and website.	3	11
Justin Bader	Researched ECG waveforms. Contributed to project plan and website.	3	10
Kory Gray	Researched micro C linux. Contributed to	3	10

	project plan and website.		
Ryan Gallus	Met with client, researched microcontroller board. Contributed to project plan and website.	3	12