

**sdmay18-12: Pilot Biometrics - ECG waveform captures**

Week 1 Report

August 21 - September 8

**Team Members**Zachary Glanz — *Drivers Design/Embedded Systems*Andrew Jones — *Algorithm Design*David Kirpes — *Circuits Lead*Justin Bader — *PCB/Circuit/Embedded Systems*Kory Gray — *Operating System Lead*Ryan Gallus — *Communications Lead/Mechanical Design***Summary of Progress this Report**

This reporting period encompasses everything from the start of our project, through this week. To begin the project, we established a team of six people with varying experience. We received the project assignment Pilot Biometrics - ECG Waveform Captures from Rockwell Collins. We determined a communications lead (Ryan), who reached out to the point of contact at the company and contacted our faculty adviser. Next, the team determined times for regular meetings and set up a GroupMe for communication and a Google Drive folder for collaborative work. Finally, the team met with our point of contact at Rockwell Collins and discussed the project in depth, including the most important requirements (MIRs), descriptions of all the hardware components to be used, and a breakdown of different tasks. After the meeting, our team met to further discuss the project requirements and began individual research into the tasks. Our team also met to complete slides for the in-class lightning talks.

**Pending Issues**

We are currently awaiting a package from Rockwell Collins with two necessary pieces of hardware: an ARM M7 circuit card and a TI sensor. Both are currently being shipped. While we wait for the hardware to arrive, the team is researching one of our first tasks, which is to install a UNIX distribution onto the microprocessor card.

**Plans for Upcoming Reporting Period**

For the upcoming reporting period, we will be researching several topics as we await the hardware. First, we will be finding a free UNIX distribution which we can install and use on the ARM M7 card. Other team members will be researching the TI sensor and begin considering the overall design of a device driver. Finally, the team will also be researching how ECG waveform captures work, what best practices exist for measuring heart waveforms, and how we can incorporate these into our project to achieve a high degree of fidelity.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Zachary Glanz	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and	5	5

	completed team tasks such as the lightning talks prep.		
Andrew Jones	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and completed team tasks such as the lightning talks prep.	5	5
David Kirpes	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and completed team tasks such as the lightning talks prep.	5	5
Justin Bader	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and completed team tasks such as the lightning talks prep.	5	5
Kory Gray	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and completed team tasks such as the lightning talks prep.	5	5
Ryan Gallus	For this first reporting period, the team collaborated on nearly all work. All team members met with our point of contact at Rockwell Collins, participated in discussions and research about the project, and completed team tasks such as the lightning talks prep.	5	5

