EE / CprE / SE 492 - Team #15
Portable DAQ for Dogs
Bi-weekly Status Report #5
Client: Simon Lalflamme
Faculty Advisor: Nathan Neihart

Team Members:
Yan Jie Hui - Co-Team Lead
Rohan Yadlapati - Co-Team Lead
Daeyoo Kim - Hardware Lead
Rishab Kinnerkar - Web Developer
Matthew Faronbi - Communications Lead

Past Week Accomplishments

Yan:
Low power Arduino:
- Need to make the arduino sleep when it is not collecting any data

PCB design:
- Started working on the PCB design

Filter and Amplifier Circuit:
- Final design of filter and amplifier circuit done and tested.
- Need to implement with arduino

Boost converter circuit:
- Tried to find out why the feedback loop was not working properly on the IC, which made the voltage drop.

Rishab:
Web application:
- Implemented forms for users uploading DAQ data.
- Implemented basic social media functions such as posting and chatting for users

Matthew:
Power management
- Researched ways to design and implement a power switch
- Trying to find ways to implement a power save function in DAQ

Daeyoo:
PCB
- Talked with Lee in ETG and finally decided to use Multisim/Ultiboard software for PCB fabrication.
- Talked with Dr.Tuttle about how to stack 2 PCBs because we wanted to make our device as small as possible..
- Decided to use several header pins and bolts to connect between two boards.

Rohan:

Real-Time Clock
- Continued implementation into current code with interrupts
- Worked on implementation of code to collect data from .txt file
- Researched datetime.h library to possibly collect real-time from computer

Pending Issues
- Finish and implement power and battery management design
- Complete RTC method and implementation
- Finish signal conditioning board
- Finish Arduino Code
- Micro SD Card
- Finish Website
- Design PCB
- Order PCB and solder components to board

Individual Contributions

Team Members	Contribution	Weekly Hours	Total Hours
Yan Jie Hui	Tested final design of filter and amplifier circuit. Started working on how to make consume less power.	10	55
Rohan Yadlapati	Began making program more user friendly, so that non-technical audience will be able use DAQ with ease. Researched datetime.h library to possibly collect current date and time from computer. Worked on method to collect data from .txt file.	15	67
Daeyoo Kim	Visited professor and staff to get some ideas for the PCB design. Also researched some components for PCB connections.	10	42
Rishab Kinnerkar	Tested new website UI's for our project. Debugged issues which the website was giving.	15	59
Matthew Faronbi	Designing a switch and saving power and reduced size or arduino by removing unneeded components	8	59

Plans for Coming Week

Yan:
- Design Sd card Slot
- Rework Arduino Code with RTC

Rishab:
- Integrate file reader application on the web-server
- Debug the web-application social media aspects
- Test website with DAQ data using the newly implemented forms

Matthew:
- Implement power switch
- Reduce size of DAQ by removing unneeded component from Arduino

Daeyoo:
- Check all the final connection on the bread board.
- Work on designing two PCB layers with Multisim/Ultiboard software.
- Order additional components for the PCB connection.

Rohan:
- Continue work on RTC and overall arduino code to be more user-friendly for non-technical audience.
- Begin work and determine necessary information for Final report and Final Poster.