

Team Name: sdmay23-17

Team Members:

- Rian Lamarque
- David Wolfe
- Joseph Hunter
- Elijah Hanson
- Thomas Ruminski

Report Period: 2/4 - 2/18

Summary of Progress

- **IoT Infrastructure**
 - Set up, configured, and extensively debugged sensors
 - Set up, configured, and extensively debugged a prototype basestation
 - Add devices and gateways to The Things Stack
 - Create an integration from The Things Stack to AWS IoT Core
 - **AWS Architecture**
 - Added connection to app for sensor data, user data and more
 - Configured s3 bucket access using Cognito User IDs
 - Set up roles and policies for infrastructure
 - **Mobile App Development**
 - Added profile page for users
 - Added forms to reset password, change email, change username
 - Added form for adding new sensors to accounts
 - Added listing section for sensors attached to accounts
 - Added filtering feature for sensor readings
 - Modified graph display
 - Modified timeline layout
 - Refactored code into components
 - **System Wide**
 - Round trip communication implemented
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Pending Issues

- **IoT Infrastructure**
 - Contact IT Services to debug the basestation not being able to have a consistent connection to university WiFi
- **AWS Architecture**
 - Need to finalize process for tying sensors to accounts
- **Mobile App Development**
 - Finalize the ability to change username, email, and password with AWS

Plans for upcoming report period

- **IoT Infrastructure**
 - Swap out concentrator chips on the base station
 - Set up webhooks on the network server to allow for remote changes to data collection intervals
 - Potentially order additional parts to expand the system
 - **AWS Architecture**
 - Need to finalize process for tying sensors to accounts
 - Transfer s3 data store to relational database
 - Begin research into elasticsearch stack
 - **Mobile App Development**
 - Condense code to make it more modular and component based
 - Finalize all features on app
 - Start testing Application for performance, reliability, and security
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Contributions by person

- Tom Ruminski
 - Team Role: IoT Infrastructure
 - Contributions: Debugged and implemented sensor, basestation, and network server
 - Hours: 30
- David Wolfe
 - Team Role: IoT/Mobile App Development.
 - Contributions: connecting front end functionality to lambdas inside of AWS
 - Hours: 20
- Rian Lamarque
 - Team Role: AWS Infrastructure
 - Contributions: Setting up infrastructure and relevant permissions, connection to Application
 - Hours: 15
- Elijah Hanson
 - Team Role: AWS Infrastructure
 - Contributions: Worked on Lambdas for sending data to app and API gateway permissions
 - Hours: 12
- Joe Hunter
 - Team Role: Mobile App Development
 - Contributions: Added major functionality for the mobile app.
 - Hours: 20