EE/Cpre 492 - sdmay21-1
Interactive Secure Headset
6th Spring Semester Report

March 29th-April 12th
Client: Cornerstone Strategies, LLC
Faculty Advisor: Dr. Rover

Team Members:

Robert Barton - *Meeting Facilitator*
Morgan Ambourn - *Meeting Scribe*
Nathan Andersen - *Report Manager*
Ehren Fox - *Chief Software Engineer*
Asa Pauls - *Chief Electrical Engineer*
Zach Johnson - *Test Engineer*

Summary of Past Two Week:

Over the past two weeks, our team has been slowly shifting focus from implementation of new features to finishing what we have in the works and moving on to working on deliverables for the class. Notably we have finished work on implementing a VPN for the pi, along with fixing issues with the network connection at boot. We have also done work configuring the bootup process to remove unneeded information. The touchpad has been handed off to Ehren and work was done to design, model, and print out a housing for it that can attach it to the headset for use as a control. Also work has finished on encryption of wifi network passwords, and is currently going through final testing. In addition to this, team members have started work on reviewing what deliverables are required for upcoming due dates, and work has progressed on those documents.

Past 2 Week Accomplishments:

- Rob
  - Fixed a bug causing the headset to ask for network information when it didn't need to.
  - Installed anyconnect VPN and attempted to connect to ISU VPN
    - Implementation of MFA has broken this seemingly beyond repair
  - Ordered power switch for device
- Asa
  - Edits on Design Document
  - Looked into alternative ways to FBFT
- Morgan

- ○ Updated boot configurations for raspberry pi to avoid showing so many startup screens
  - ○ Determined how to include our own logo on boot screen instead of Raspberry Pi
  - ○ Researched vpn application and installed it on the raspberry pi (then passed it over to Rob to configure)
  - ○ Update final documentation (included more specific design decisions, updated our future iterations document, created an outline for our poster and final presentation, added notes to our final document checklists)
- ● Ehren
  - ○ Met with Nathan to discuss integration of touchpad into headset casing
  - ○ Designed and printed piece that allows touchpad to be attached to the head strap of the headset
- ● Nathan
  - ○ Met with Ehren to hand off hardware. Discussed ways to design a casing for it to mount it to the headset.
  - ○ Worked on documentation for final presentation
- ● Zach
  - ○ Finished WPA network password encryption code (still needs to be tested on our actual pi)
  - ○ Created an example test, explored ways to incorporate our new US MLE test data into a test

Pending Issues:

- ● Rob
  - ○ None
- ● Asa
  - ○ Pi with screens attached are slow, can't load Tao test
- ● Nathan
  - ○ None
- ● Ehren
  - ○ Integrate touchpad fully
- ● Zach
  - ○ Password encryption might not be working on the pi zero right now
- ● Morgan
  - ○

Individual Contributions:

Team Member	Contributions	Hours Worked	Total Hours (Sem. 2)
Robert Barton	Bug fix and VPN work	8	55
Morgan Ambourn	Configured bootup to clean it up and include a logo, researched/installed a vpn application, final documentation	8.5	41.5
Nathan Andersen	Handing off touchpad, documentation work	6	41
Ehren Fox	Touchpad integration with Headset	7	44
Asa Pauls	Edits to Design Document, looked at possible alternative ways to FBFT	4	30.5
Zach Johnson	Finished WPA network password encryption	7.5	38.5

Plan for Upcoming 2 Weeks:

- Rob
  - Help with documentation
- Morgan
  - Work on final presentation, poster and report
  - Make sure everything is up to date on our website
- Nathan
  - Hand off switch
  - Work on presentation slides
- Asa
  - Need to meet up with Ehren to integrate touchpad with Pi and move over the updated Pi to the headset
- Ehren
  - Meet with Asa to discuss touchpad integration with Pi
- Zach
  - Work out bugs in encryption code
  - Integrate US MLE test data into an example test