

## Senior Design Weekly Status Report; Fall 2022

Team Name: sdmay23-09

Team Members:

- 1) Shayla Lunn
- 2) Erica Hollander
- 3) David Bone
- 4) Hanan Zahid
- 5) Kaili Lawson
- 6) Lakin Jenkins

Report Period: Oct 22th - Oct 28th

### Summary of Progress in this Period

- Erica
  - Work on architecture to future support Android and Apple development.
  - Research ways to use the Swift API with a ReactNative application
- Shayla
  - Continued going through the Mobile knowledge training videos.
  - Used Mobile Knowledge hardware to test the application.
  - Learned about the communication between UART and puTTY
- David
  - Successfully connected Mobile Knowledge to the debug board and stepped through the our application to detect a UWB device within 200cm
  - Learned more about UART and puTTY to send bits and receive bits from UART
- Hanan
  - Researched different development environments
  - Learned more about nearby interactions and connecting mobile application to UWB Module
- Kaili
  - Went through the Mobile Knowledge training videos and created an API for our application that detects a UWB device and sends a UART message if a device is within 200cm
  - Tested this application using the Mobile Knowledge hardware
  - Created UART standards and outlined these in a document
- Lakin
  - Continued working with swift
  - Researched different development tools to include android
  - Fixed all of the wireframe to what we want the final application to look like
- Entire Team
  - Met with our client to update on progress and get feedback

- Continued development of design document

## Pending Issues

### Current Sprint Board

The screenshot displays a Jira sprint board with the following structure:

- Backlog:**
  - RL-63 190037 Initial Release: 5 / 5
  - RL-71 MK AnchorTag Firmware: 6 / 6
- Pending:**
  - RL-69 Mobile Phone App: 13 / 13
  - RL-70 IO Module Software: 6 / 6
- In Progress:**
  - RL-63 190037 Initial Release: 1
  - RL-71 MK AnchorTag Firmware: 2
  - RL-69 Mobile Phone App: 3
  - RL-70 IO Module Software: 1
- In Verification:**
  - RL-63 190037 Initial Release: 1
  - RL-69 Mobile Phone App: 2
  - RL-70 IO Module Software: 0
- Done:**
  - RL-63 190037 Initial Release: 3
  - RL-71 MK AnchorTag Firmware: 0
  - RL-69 Mobile Phone App: 4
  - RL-70 IO Module Software: 3

Individual issues shown include:

- BG-640:** MK Code Enters UART Handler (New)
- BG-649:** MK Code Sends UART Message to PuTTY (In Progress)
- BG-618:** SPIKE: Watch UWB Kit Training Videos (In Progress)
- BG-651:** MK Code Detects Tag in Unlock Zone & Sends UART Message (Closed)
- BG-650:** MK Code Debugs & Hits Breakpoint (Closed)
- BG-626:** Transfer MK Code to GitLab (Closed)
- BG-645:** Phone display distance via UWB (On Hold)
- BG-648:** BLE pairing (Pending)
- BG-644:** Add Nearby Interactions (In Progress)
- BG-632:** Mobile App Mockup (In Verification)
- BG-638:** Mobile Application Requirements (Closed)
- BG-623:** Mobile App Clickable Button (New)
- BG-646:** Notify when phone is in BLE range (Pending)
- BG-621:** SPIKE: Look into Swift Unit Testing (In Progress)
- BG-614:** SPIKE: Look Into Swift for Nearby Interactions (In Verification)
- BG-622:** Mobile App Displays TriMark Logo (Closed)
- BG-623:** Mobile App Clickable Button (New)
- BG-646:** Notify when phone is in BLE range (Pending)
- BG-621:** SPIKE: Look into Swift Unit Testing (In Progress)
- BG-614:** SPIKE: Look Into Swift for Nearby Interactions (In Verification)
- BG-622:** Mobile App Displays TriMark Logo (Closed)
- BG-620:** Mobile App Displays "Hello World" (Closed)
- BG-616:** Equipment list for ISU (Closed)
- BG-642:** SPIKE: Look into how digital key will be stored (New)
- BG-612:** Print "Hello World" To UWB UART (In Progress)
- BG-625:** MK PC Shell Running (Closed)
- BG-641:** TriMark Code Receives From UART 2 (New)
- BG-633:** Debug TriMark Code (Closed)
- BG-627:** Compile & Push TriMark Code to Git (Closed)

## Plans for Upcoming Reporting Period

- Test the sending/receiving of UART messages on the UWB module
- Create UWB API on TriMark's codebase and implement UART communication
- Connect the Apple Sample App with the UWB MK Kit