Group 5

MEETING AGENDA

Meeting Time: 10:30 AM	Location: AQ, SFU Burnaby	Date: 20/06/2019

Meeting called by	Jerry
Kind of Meeting	Doc planning,
Facilitator	Jerry
Note Taker	Jeff
Time Management	N/A
Attendees:	Keith, Scott, Ryne, Jeffery, Jerry

Topics

Time	Discussion Topic	Presenter	Deadline
10:30 AM	Introduction	All	
10:40 AM	Design Doc	Jerry	
11:40 AM	System Arch	Jerry	
12:00 PM	Testing	All	

Notes:

MEETING MINUTES

DPU - Server/rPi

1. Introduction (5min)
2. Design Documentation (50min)
    a. System Overview - **Jerry**
        i. High-level
        ii. System State Diagram
        iii. Physics RF, multipath, etc. **(Keith)**
        iv. Math - Trilateration **(Keith)**
            1. ToF
            2. RSSI
    b. System Design (Focused on Final model) **- Ryne**
        i. Communication Protocol
            1. Beacon -> ID Tag **(Keith)**
            2. Beacon -> Server **(Jerry)**
        ii. Beacon design
            1. Hardware State Machines
            2. Mockup Shell **(Jerry)**
            3. Technical design **(Jerry)**
        iii. ID tag design
            1. Hardware State Machines
            2. Mockup Shell - Done
            3. Technical desiDPUn - Done
        iv. Data Processor - R-Pi
            1. Description
            2. 3 > 2
    c. Hardware Design **- Keith**
        i. Use of each Chip
            1. ESPs
            2. DPU
            3. Decawave 1000
    d. Electrical Design - **Ryne**
        i. Power consumption
        ii. RF harvester (optional)
        iii. Power Mode
            1. Beacon
            2. ID Tag
            3. Server
    e. Software Design - **Scott**
        i. Overall
            1. Libraries/Packages/Frameworks
            2. Software Stack
                a. High-Level
                b. MVC
            3. Threading
        ii. Client Browser
        iii. Web Server
        iv. Manager
        v. Beacon Communication Protocols

vi. Database Implementation
vii. Models
viii. Controllers
ix. Security

f. Appendix
g. Test Plans **- Jeff**
    i. PoC
        1. System Integration
        2. Measuring RSSI
        3. Setups
    ii. Prototype
        1. System Integration - High Level
            a. High Level Test Cases
        2. Usability test cases (UI)
        3. Component
            a. ToF
    iii. Final
        1. System Level Testing
        2. Component/Regression
        3. Software
            a. Automated
            b. Security Test Cases
            c. UI Test Cases
    iv. Usability Testing
h. UI Appearance Appendix (complete)

3. System Architecture (35min)
4. Testing (30min)

Action Items	Person Responsible	Deadline
Bring 10ft cable	Jeff	25/06/2019
Bring power bank	Keith	25/06/2019
