

Indoor Positioning using Ultra-Wideband Ranging Systems

Progress Report #1
ENGO 500: Trilateration Nation

Team Members: Paul Gratton, Jamie Horrealt, Katherine Pexman, Jeffrey Plett
Supervisor: Dr. Kyle O'Keefe
January 15, 2019

Presentation Overview

1. Project Overview
2. Milestone Summary
3. Work Accomplished
 - Proof of Concept
 - Control Survey
 - Android Application
4. Changes to Work Plan
5. Lessons Learned

Project Overview

- Ultra-wideband ranging radios
- Real-time location system
- Android application



Decawave mdek1001 [1]

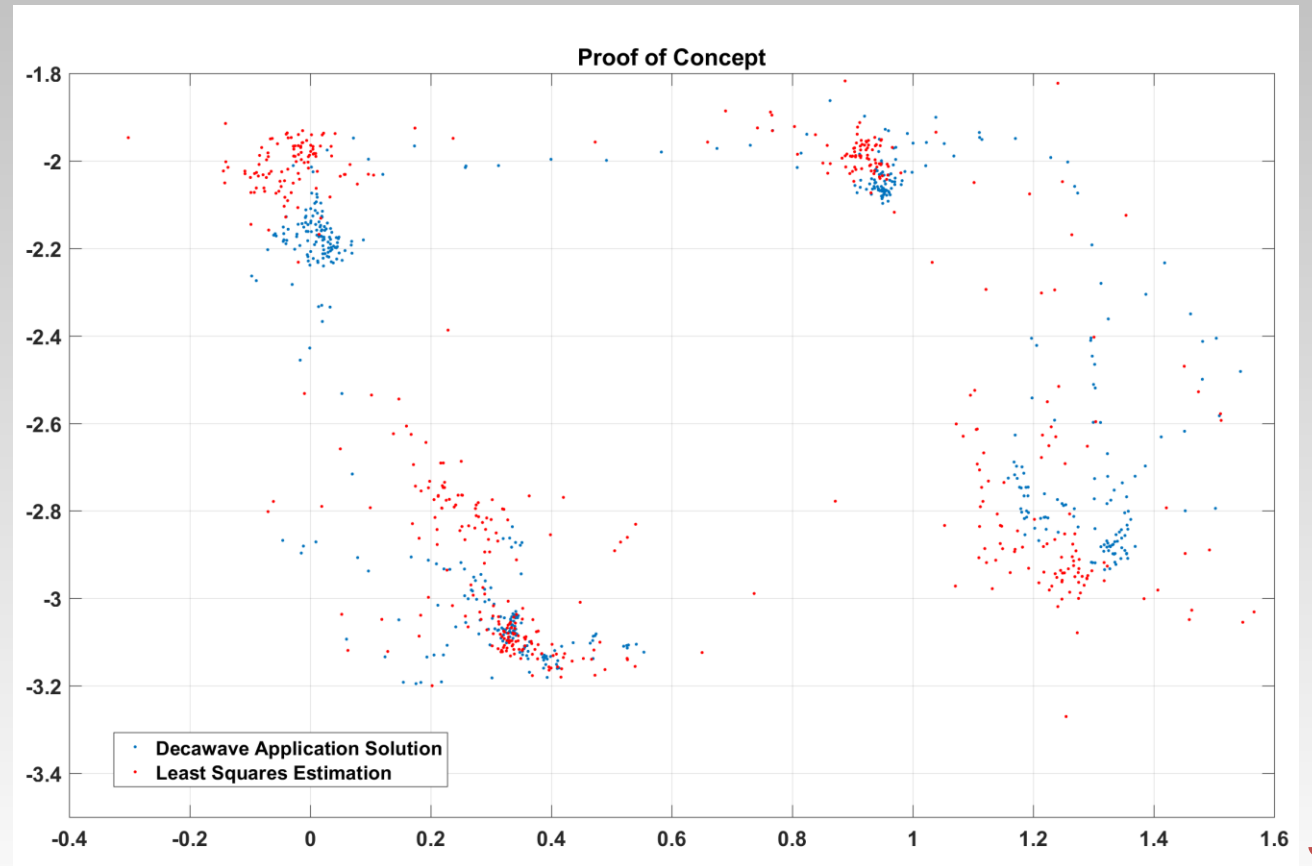
Milestone Summary

	Components	Planned Delivery Date	Actual Delivery Date
1	Project Proposal Presentation	2018-10-31	2018-10-31
2	Phase 1 Proof of Concept	2018-11-30	2018-11-30
3	Control Survey of Testing Environment*	2018-12-07	2018-12-10
4	Phase 2 Proof of Concept*	2019-01-15	In Progress
5	Basic App Documentation	2018-11-30*	In Progress
6	Data Stream Documentation	2019-01-31*	-
7	Data Stream Integration into Android App	2019-03-01	-

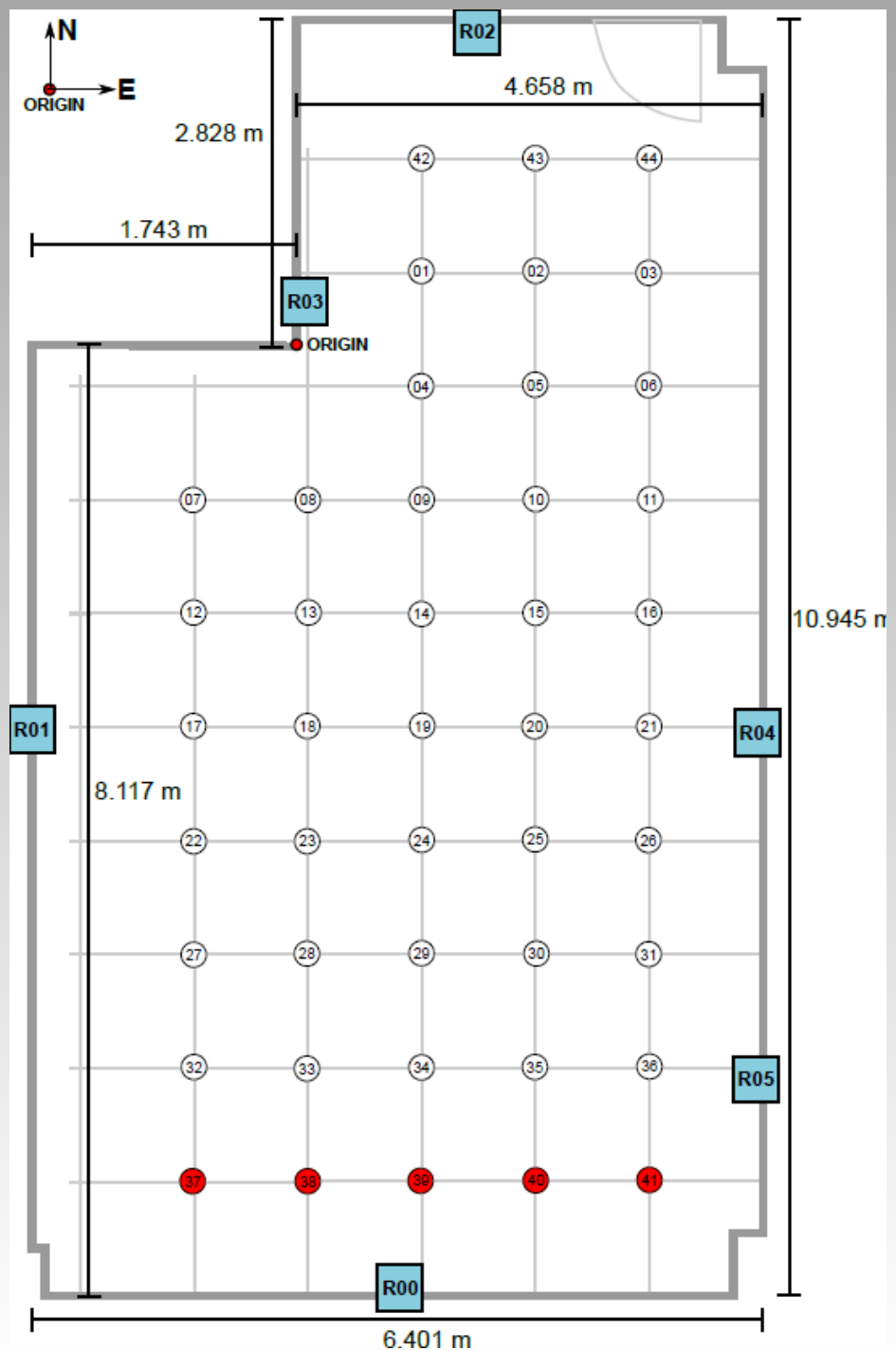
Work Accomplished: Proof of Concept

Position Estimation

- Post Processed least squares estimation
- Results
- Issues



Work Accomplished: Control Survey



Work Accomplished: Android Application

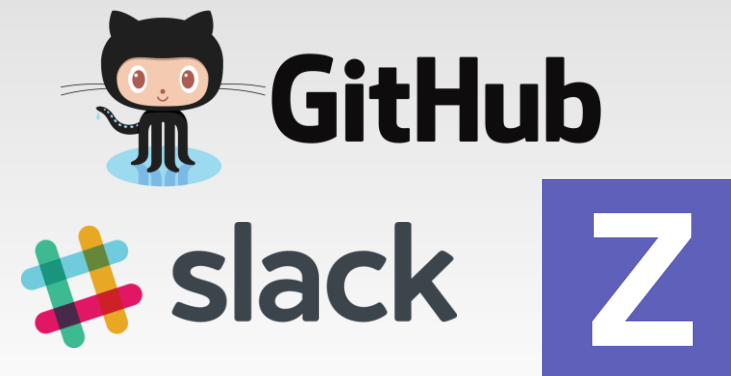
JEFF DO SOME SHIT

Changes to Work Plan

1. Control survey of testing environment milestone has been added
2. Phase 2 Proof of Concept has been added
3. Delivery date of basic app documentation has been changed
4. Delivery date of data stream documentation has been changed

Lessons Learned

- Communication
- Time Management
- Technical development and adaptation



References

[1] “MDEK1001 – decaWave”, decaWave.com, 2018. [Online].