



VComp

Museum Audio Guide and Visitor Monitoring System

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Company Shareholders



- Halil Çağrı Bilgi - CEO
- Ömer Faruk Arslan - Software & Development
- Ali Belli - Hardware & Ergonomics
- Abdullah Bölükbaşı - Financial & Material Management
- Mehmet Kılıç - Test Process & Quality Control

Project Description

Design an indoor position tracking system and an audio guide for museums.

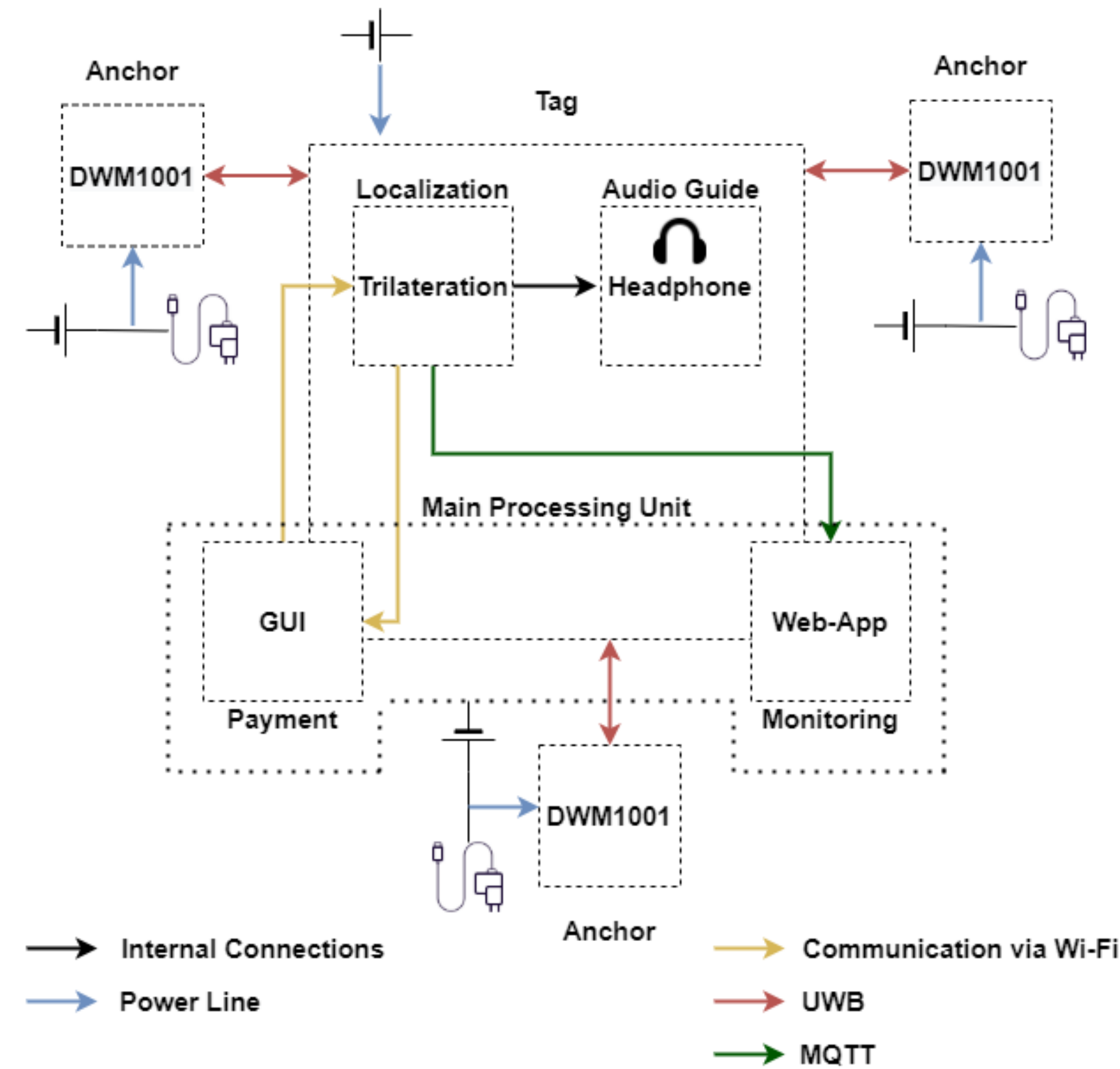
Project Requirements

- Accurate Indoor Positioning (< 50 cm)
- Fast System Response (1 Hz update rate)
- Audio Guide (informations and warnings)
- Long Battery Life (> 2 hours)
- Non-Bulky Design (< 300 grams)

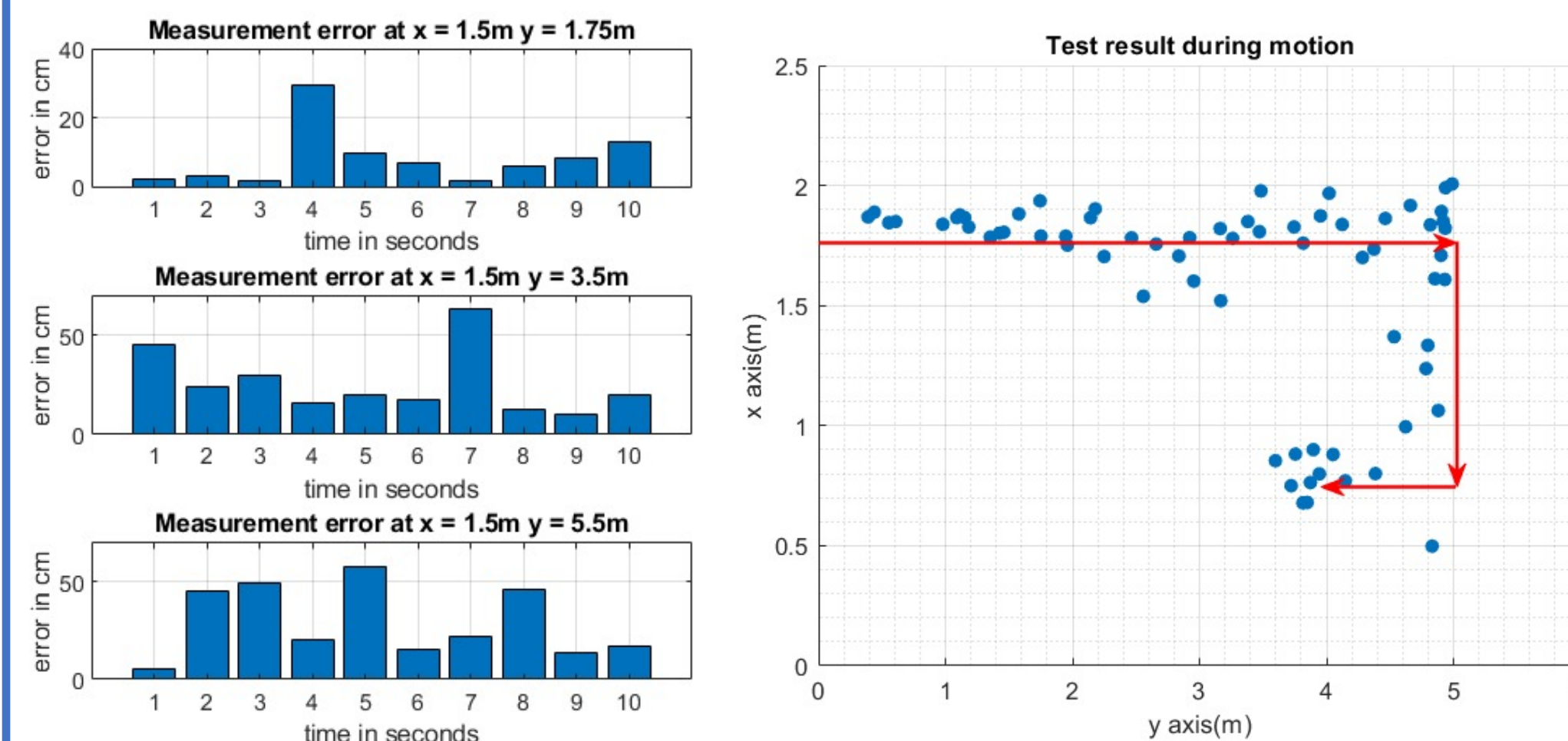
Features

- Web-App is accessible from any device in LAN
- Easy Visitor Registration
- Solid Communication Network
- Real-Time Monitoring
- Wide Indoor Area Coverage with Minimum Number of Hardware

Solution Approach

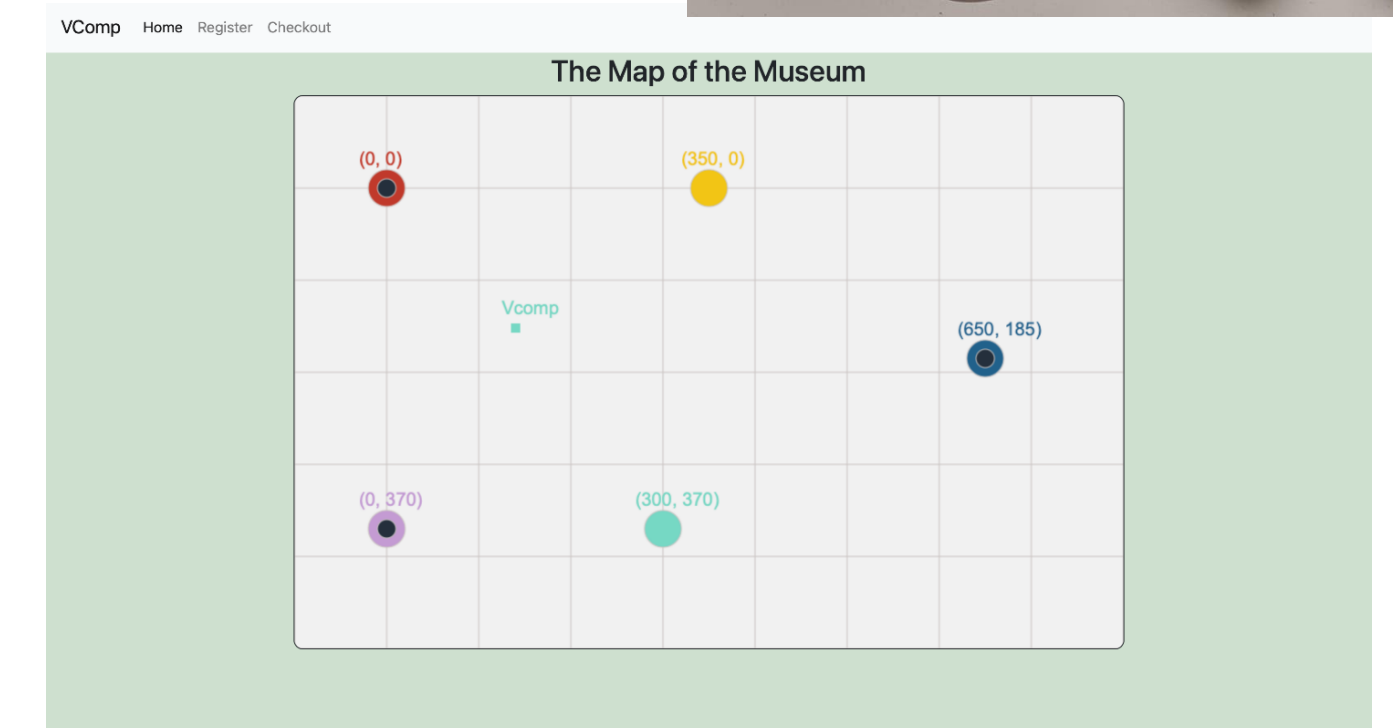


Test Results



Deliverables

- Handheld Device
- Stationary Devices
- Li-ion Battery x5 & Charger
- Main Processing Unit
- Powerbank
- User Manual and Warranty
- Monitoring Software



Cost Analysis

Components	Quantity	Total Cost (\$)
Raspberry Pi 4	1	45
Raspberry Pi zero w	1	10.6
LM2596	1	1.65
Li-ion Battery 2200 mAh	2	6.47
Li-ion Battery 850 mAh	3	8.65
Battery Charger	1	5.49
Battery Holder	1	0.55
Powerbank	1	5
DWM1001	4	72
3D Printed Parts	1	18.4
Additional Cost	-	2.5
Total Cost		176.31