

Firefighter Monitoring Network

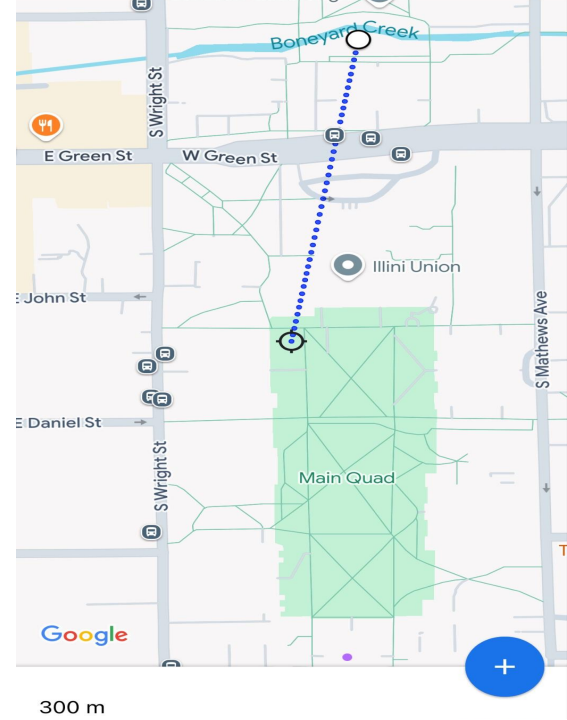
ECE 445 Team 17

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LoRa Range Test

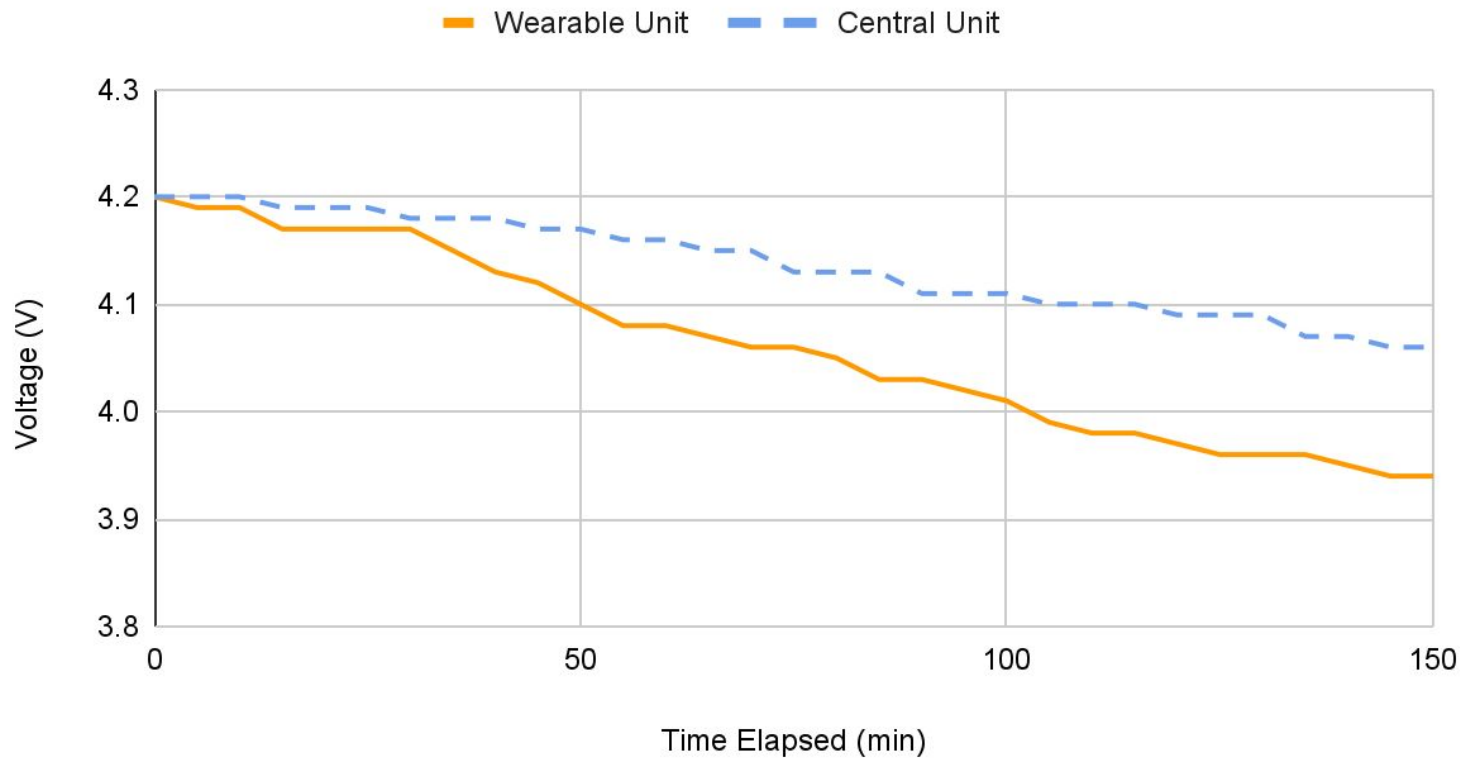
Central Unit Display & Distance From Wearable Unit

899 Feet = Approximately 275 Meters



Battery Life

Device Voltage vs Time



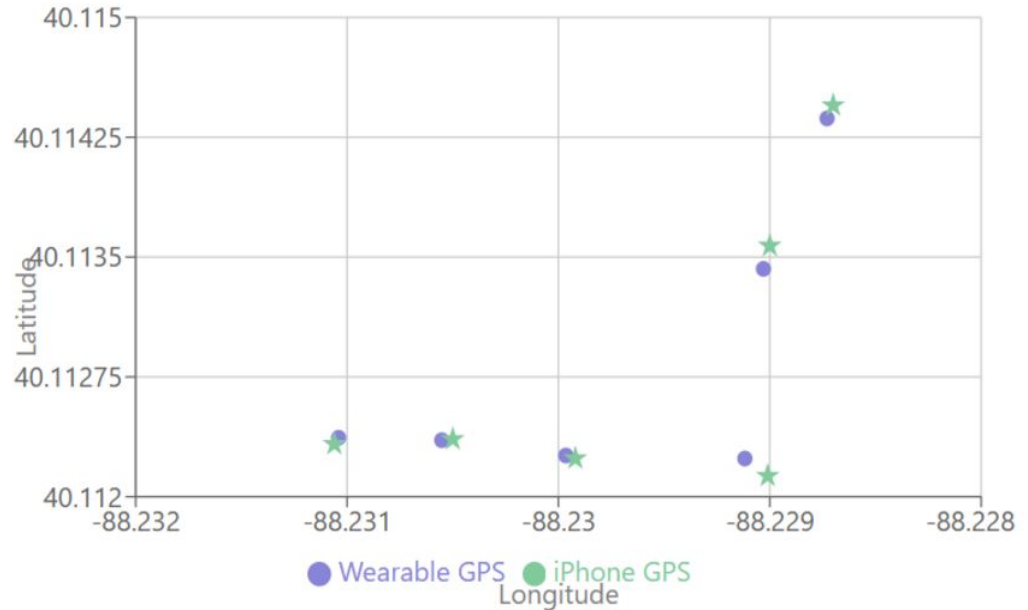
GPS Accuracy Test

Verification of Wearable Unit Coordinates



GPS Coordinate Comparison Analysis

Average Error: 0.000089 degrees



GPS Coordinate Error

Trial	Wearable Lat	Wearable Lon	iPhone Lat	iPhone Lon	Error (meters)
1	40.114368	-88.228729	40.11445	-88.2287	9.4
2	40.113426	-88.22903	40.11357	-88.229	16.2
3	40.112354	-88.230552	40.11236	-88.2305	4.5
4	40.112369	-88.23104	40.11233	-88.23106	4.7
5	40.112258	-88.229965	40.11224	-88.22992	4.3
6	40.112239	-88.229118	40.11213	-88.22901	15.2
				Average Error	9.05

Heartbeat Accuracy Test

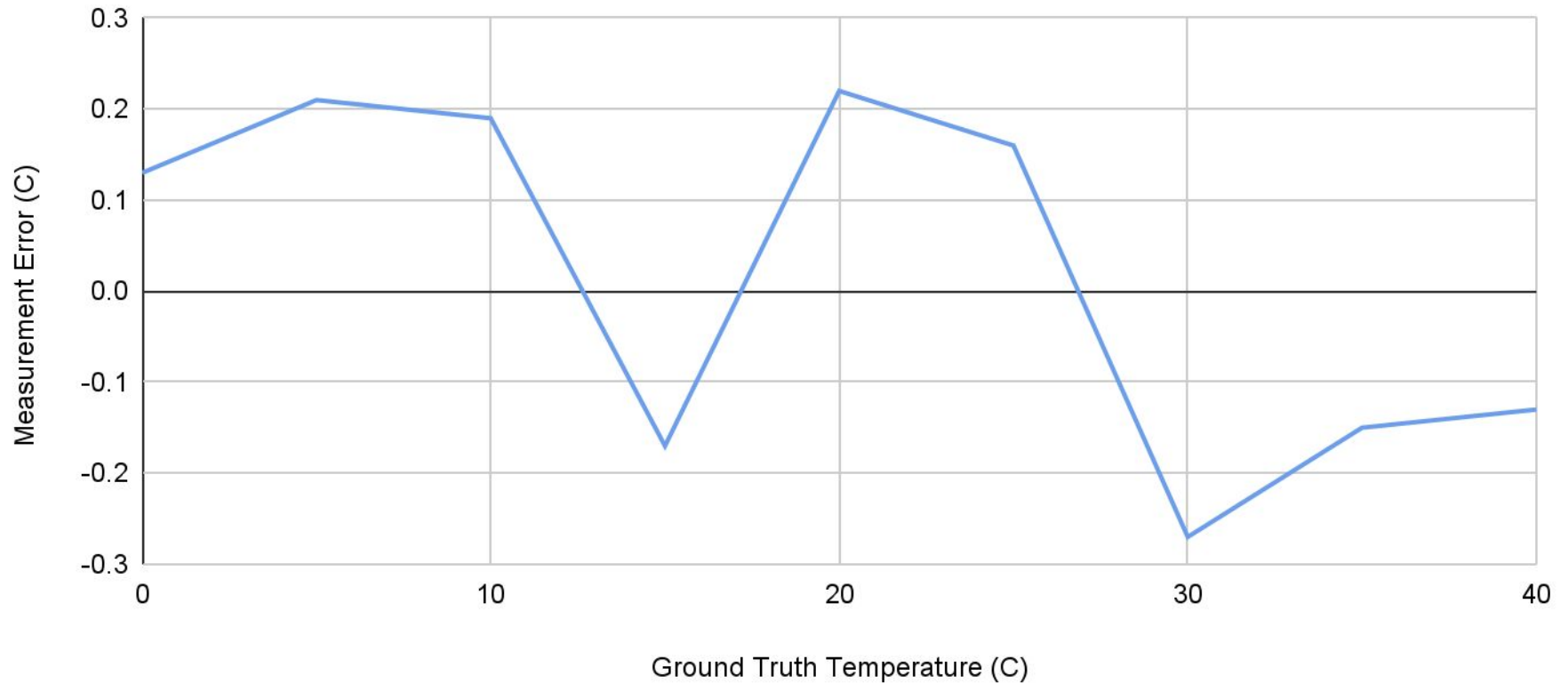
Heart rate beats per min error

Trial	Wearable HR (bpm)	Apple Watch HR (bpm)	Error (bpm)
1	61	61	0
2	57	54	3
3	80	76	4
4	86	89	3
5	99	102	3
6	107	109	2
		Average Error	2.5



Temperature Accuracy

Temperature Measurement Error vs Different Temperatures



Battery Low Power Alert

