DriveWise

Overview

Personal blackbox for your car

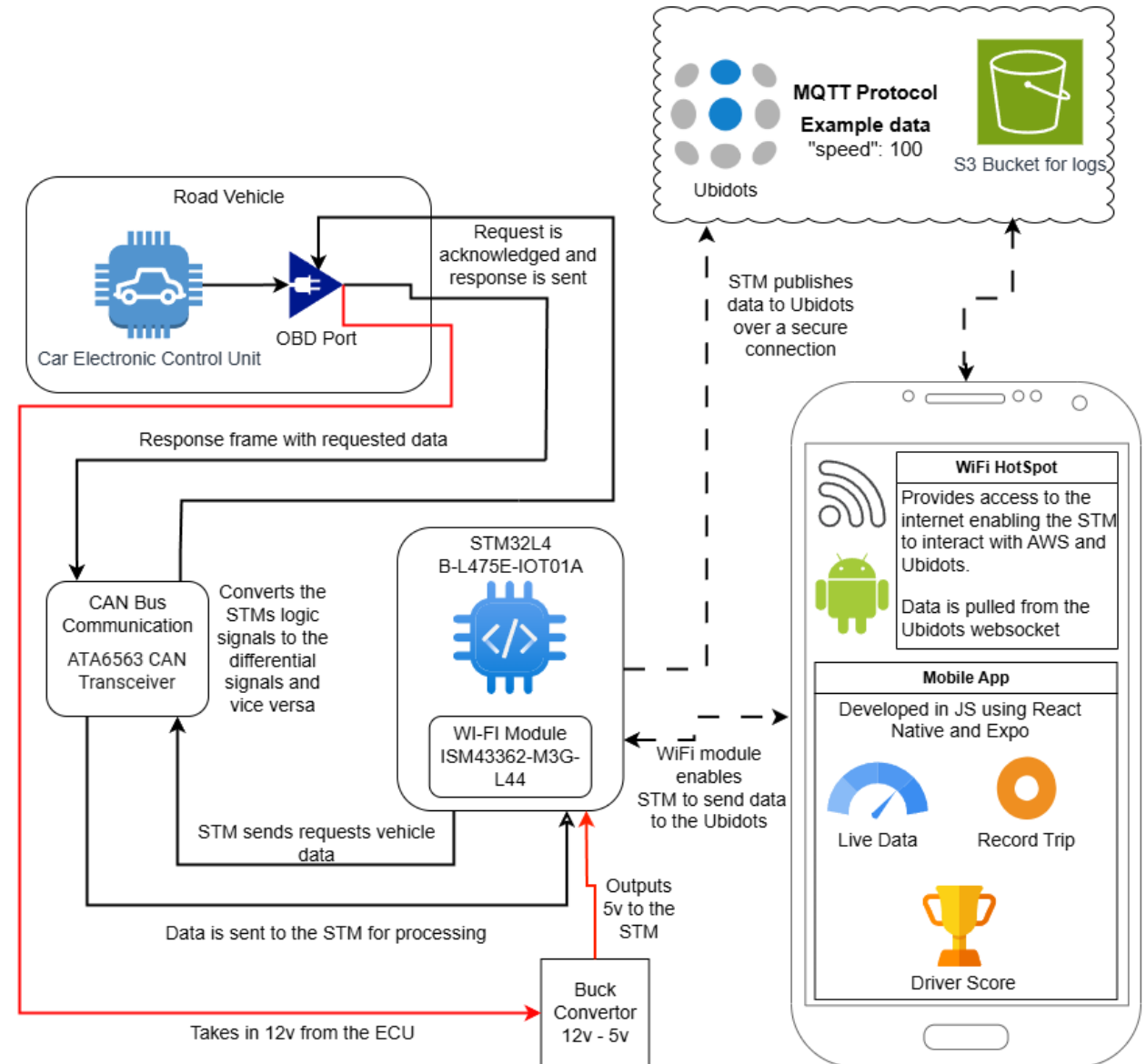Live data retrieved from ECU

Uploaded to Ubidots

Displayed on mobile app

Data is recorded and stored in S3

Logs are viewed in app

A driver score / feedback is calculated when requested

Project Demonstration (Car)

Research

AWS
S3
EC2
Concerns

Driver Feedback
Scoring
Advice
Processing
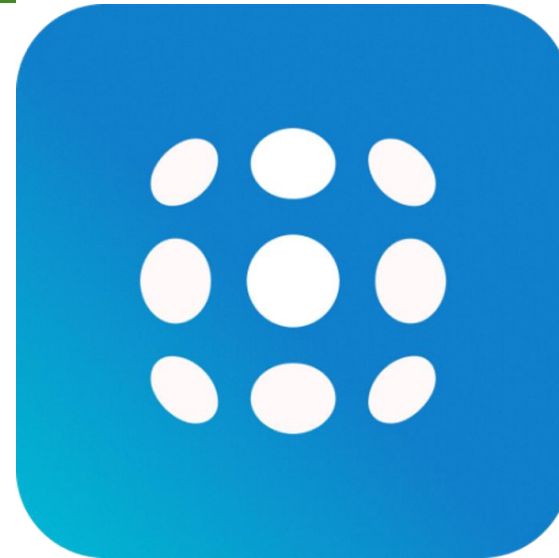
Mobile App
Expo
UI/UX

WebSockets
Ubidots
Data stream
Secure

TLS
Storing the cert
Connecting with TLS

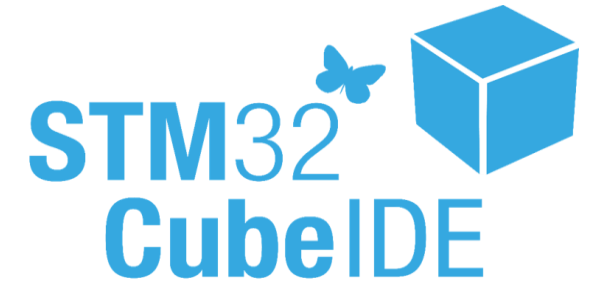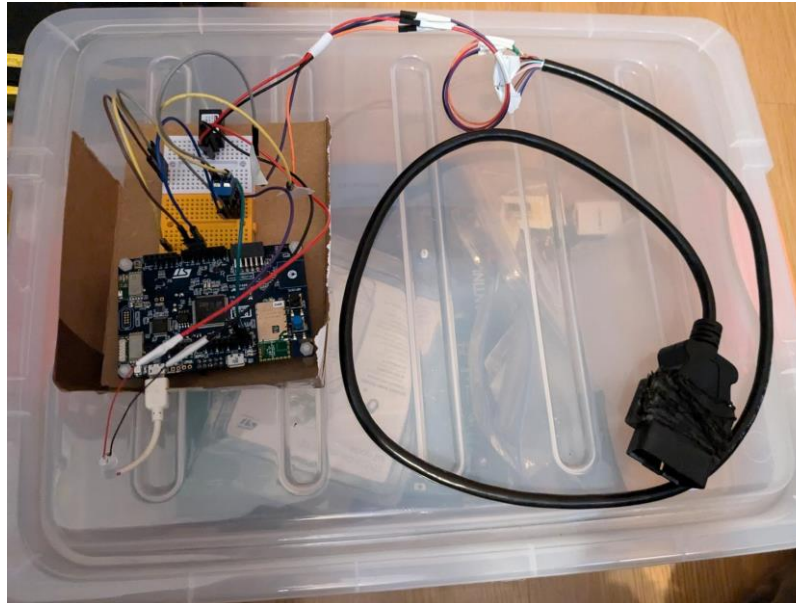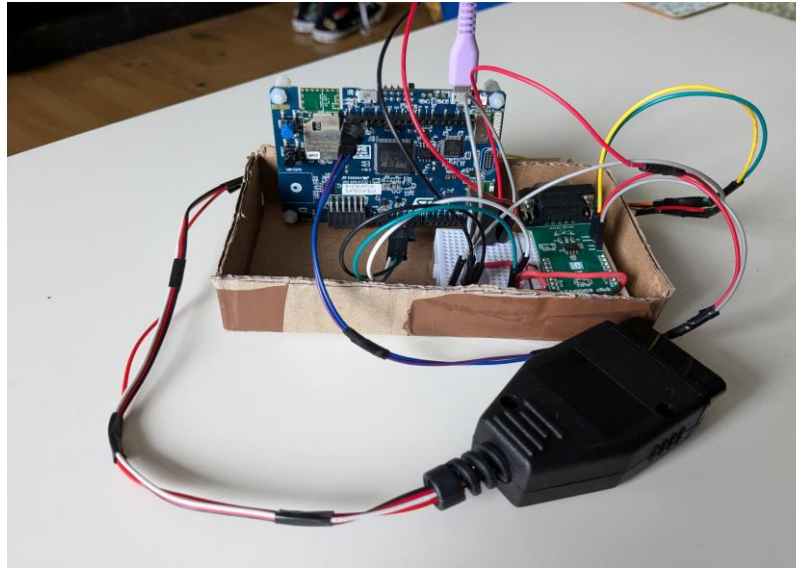∧ Expo

Technology/Skills

Hardware
STM32-L475E-IOT01A
OBD-II Connector
ATA6563 / SN65HVD230
DC-DC Buck Converter
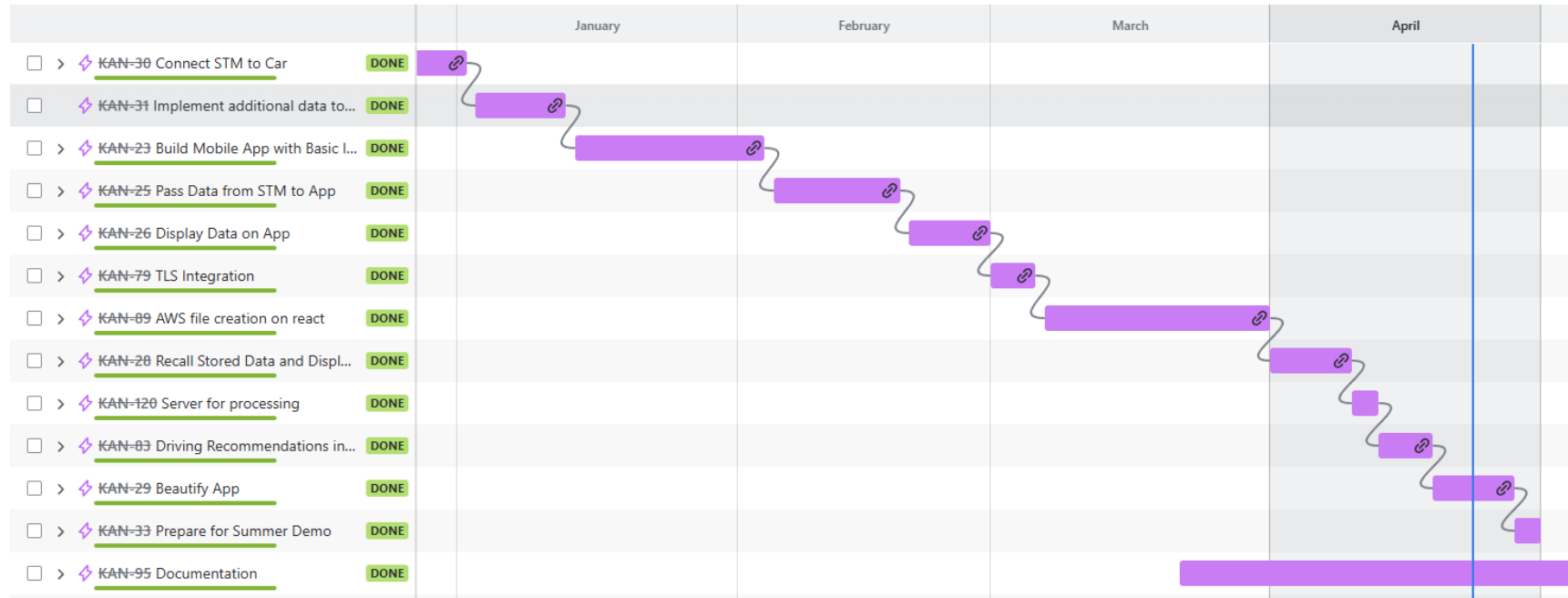OZEN ECU Multi Simulator

Software / Services
STM32CubeIDE
Ubidots (MQTT Broker)
PuTTY
Visual Studio Code
AWS S3/EC2 (Storage/Server)

Skills
C/JS
UI/UX
Prototyping
Debugging
Project Management
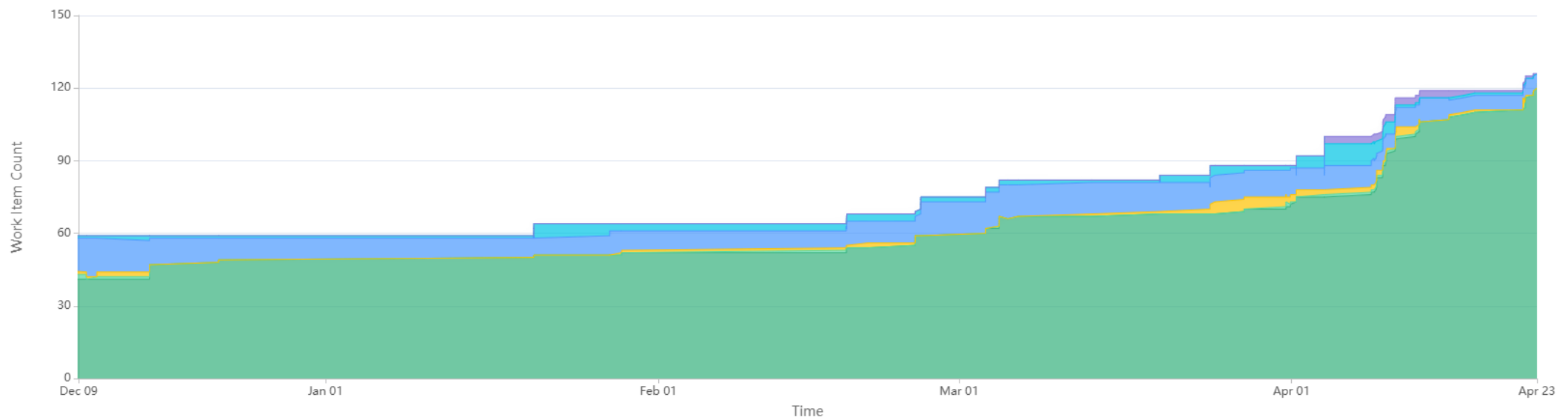
Project Management

Tool : JIRA

Methodology : Kanban

Cumulative Flow Diagram
- Documentation: Purple
- Backlog : Light Blue
- To Do : Dark Blue
- In Progress : Yellow
- Done : Green

Connection Demo