Bus Tracker

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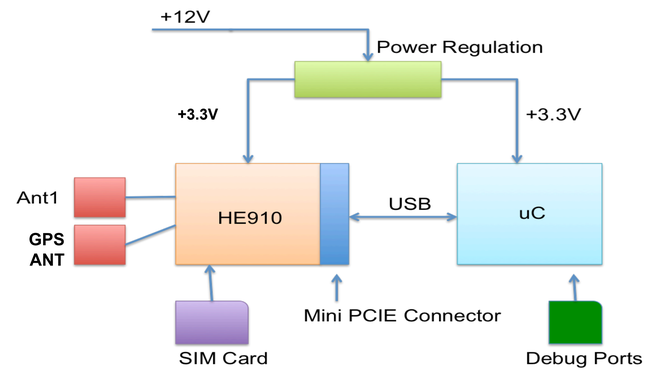
Problem Statement

Public transportation is an essential part of many people's lives, and though route schedules are important and useful, mass transit can benefit from live information and improved customer service. Riders' experience with buses hinges on their ability to actually ride a bus and be on time to their destination. Buses can fall behind schedule, which can cause riders to be late, and standing around a bus stop for an extended amount of time is not ideal. Our senior design project aims to reduce the inherent uncertainty associated with public transportation with Internet of Things technology.

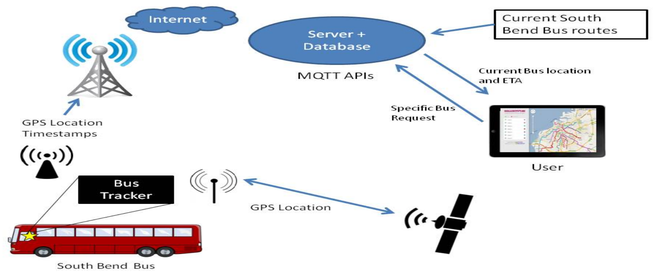
Proposed System Block Diagram



Proposed Design

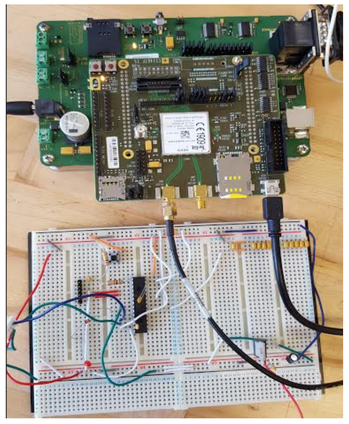
Build a bus tracking module that incorporates GPS tracking and a mobile application

- Module will track GPS location of bus
- Users can choose their bus stop on mobile application
- Mobile application will display live arrival time of bus

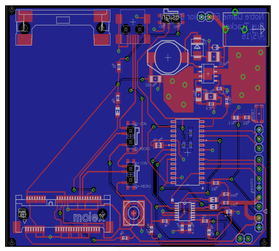


Prototyping and Development

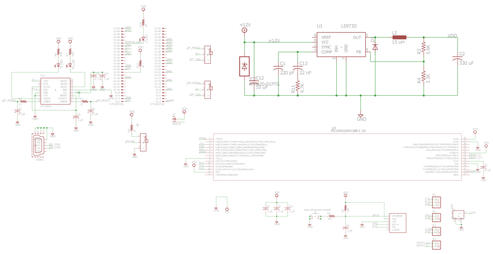
Utilized HE910 Telit Evaluation Kit and PIC32 microcontroller to design and test our design



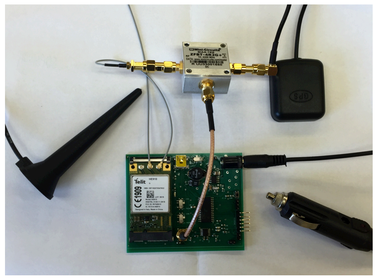
Final Design



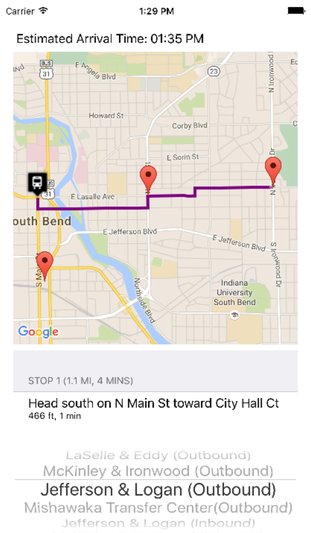
Final Board Layout



Board Schematic



Board With and Without Antenna Connections



Final App