

# Smart Transportation

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June 25, 2016

# Motivation

- Address the Road safety issue using IoT as a technology
- Measure different observations of road condition, driving and behaviour of the driver.
- Measure sharp brakes, improper turns, trip time, waiting time, speed profile.

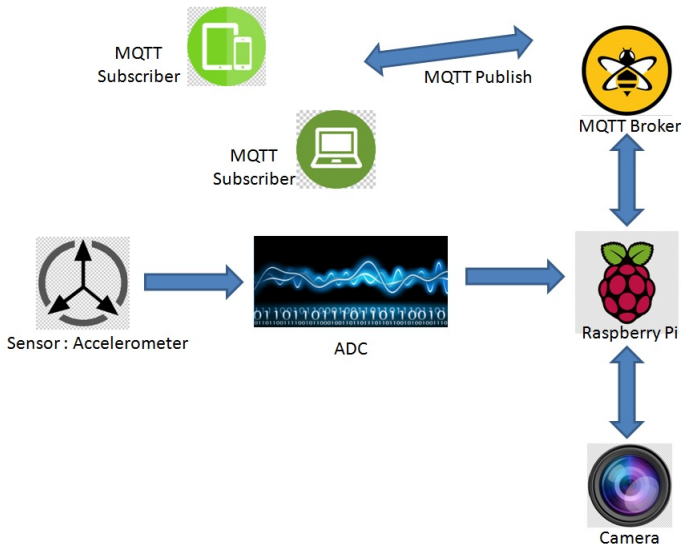


- Follow Trips
- Understand Road conditions
- Rate Driving skills without bias
- Predictive maintenance of the Car
- Customised car warranty packages.

- Accelerometer ADXL335
- ATMEGA32A
- Raspberry Pi 3
- Camera
- Capacitors



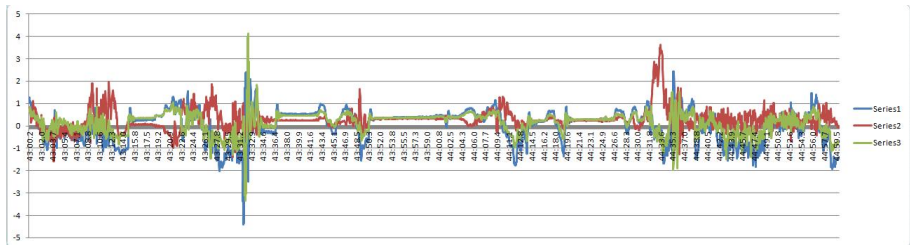
# Architecture



# Implementation

- Identified types of turns taken by the driver,i.e., left turn/right turn.
- Identified brakes applied by the driver.
- Differentiated between normal brakes and sudden brakes, proper and improper turns
- Publish an alert message to the MQTT broker and start the video recording as soon as sudden brakes are identified.
- Identify the finish of the trip, at the end of the trip, plot the time-series graph of speed.

# Snapshot



# Future Work

- Identify pot holes and Speed bumpers
- Detect accident events.