Smart Transportation

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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.

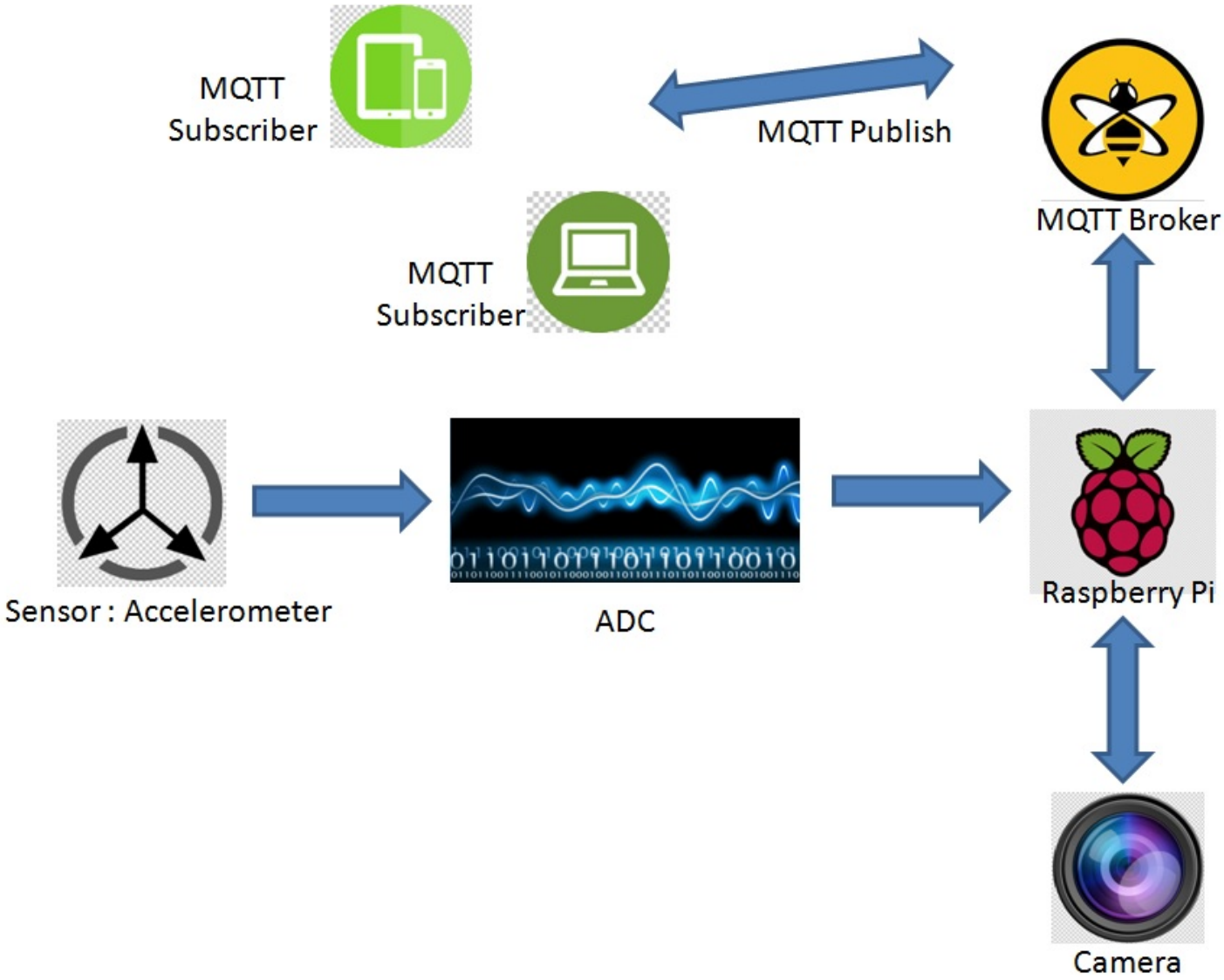
Impact

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

Sensors/Tools

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

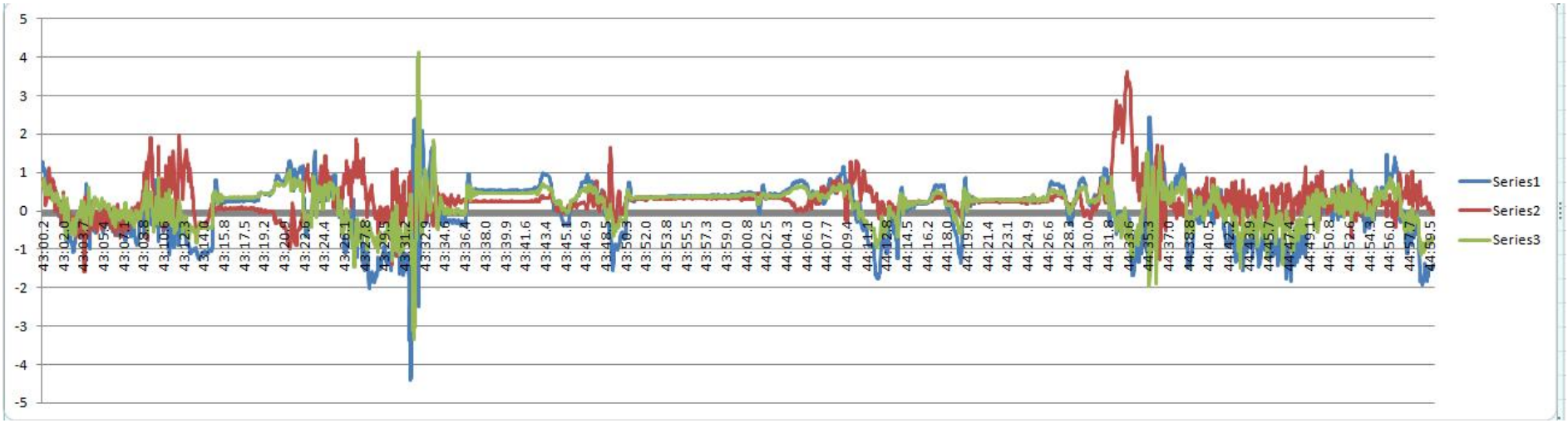
Architecture



Results

- 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
- Waiting time of the car in the trip
- Distance and Speed of the car in the trip

Snapshot



Future Work

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