Steven Tran IOT HW1

1. Intrusive: Require physical installation into road.  
   Non-Intrusive: Systems like cameras or radars that can be mounted on roadside.
2. VMS is measured by using a 3-axis magnetometer sensor (MAG) used to measure magnetic disturbance to the Earth’s magnetic field caused by an overpassing vehicle.
3. ULP systems switch between stop and run modes because it helps the device run for many years without needing a battery replacement.
   1. Assets: Lanes in the cities.
   2. Devices:
      1. 3-axis magnetometer sensor (MAG)
      2. 3-axis and accelerometer sensor (ACC)
      3. 32-bit Embedded Microcontroller
      4. Embedded GPS Module
      5. Power Management System
      6. Data Logging Unit
   3. Network:
      1. Wireless Sensor Network (WSN)
      2. sensor nodes (IoT-SNs)
      3. IoT cloud server
      4. cellular network
4. The solution is a case of Sensing.
5. The paper is identifying a problem and a proposed solution. However, it does not have any performance metrics. How well does the device perform in real life situations (how accurate the sensors are in collecting data). There are also no tests for its network. In a big city, is the network able to handle all the traffic. It should also compare to current technology and why this solution is better.