Hit & Run Car Accident Surveillance and Battery Saving
Student: Milad Qazazi       Faculty Mentor: Dr. Lubna Alazzawi
Dept. of Electrical and Computer Engineering

Opportunity and Significance
• Incidents of hit and run have been increased by 16% since 2000, affecting many people and causing injuries.
• Hit and run accidents is 45% of all car crashes each year, making it the highest out of all car accidents.
• Many people have been victims of Lipo-battery explosion in their car’s dash cameras under very hot weather conditions.

Technical Objectives
• The objective of this project is to make sure you are covered for a hit and run car incident and allow for battery saving.
• Set of cameras can be installed around the car to capture footage when the car is hit by another motor vehicle.

Related Work and State of Practice
• Most of the cars being made by companies now days are designed to have multiple sensors around the car for several reasons.
• There are 24/7 surveillance camera around the car, which is not as efficient for the car battery.

Technical Approach, Accomplishments and Results

Diagram 1
• Shows the way the system will be communicating when a car is hit.

Diagram 2
• Shows a sample of a touch sensor that can be used for the system.

Diagram 3
• Shows the way the components will be connected to the Arduino.
• Diagram 1: Shows the way the system will be communicating when a car is hit.
• Diagram 2: Shows a sample of a touch sensor that can be used for the system.
• Diagram 3: Shows the way the components will be connected to the Arduino.

Next Steps for Development and Test
• Make the circuit for all the components.
• Make the prototype for the hardware.
• Test the system under different conditions.
• Start writing a manuscript based on the data collected.
• Collaborate with different faculties at Wayne State University to obtain feedback on how this project can be improved.
• How the system can be patented and be implemented in real vehicles for testing.

Commercialization Plan & Partners
• I am currently working with Dr. Lubna Alazzawi at the Electrical and Computer Engineering Department to further improve this product.
• I plan to introduce this product to insurance/car companies that will be able to implement this product to be installed in all cars.
• This product could be a little expensive to be added to the car since it will require Wi-Fi or radio frequency device to communicate with your phone.

Acknowledgement goes to my mentor, Dr. Lubna Alazzawi and to the Electrical and Computer Engineering Department.

References
"Dashcam Battery in Very Hot Climate? r/Dashcam." Reddit, www.reddit.com/r/Dashcam/comments/5oc76g/dashcam_batter y_in_very_hot_climate/
