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**Prospectus**

**Proposed Project Title**: Blind spot detection system on Mobile Device

**Problem**

Car is the one of the main ways of transporting in US. One of the problem for car drivers is checking for cars approaching from blind spot area. Some modern cars, especially self-driving car, have already fixed this problem by integrating the detection system into the car itself. However, many old models or cheaper models still don’t have this system yet. The goal of this project is to create a system for detecting approaching car in blind spot area and alert the users with sound for smartphone with emphasis on reliability and usability. The mobile device should be able to connect with the sensor using wireless technology reliably and be able to start up the system on its own without much effort from user.

**Tasks:**

* Survey current wireless technology to select an appropriate one.
* Surveying the sensors that are in market to find one that is cheap, accurate, and reliable.
* Build the app
  + Detecting car in blind spot
* Mechanism to start up the app automatically
* Improve usability and interface

**Challenge (Risk):**

Challenge for this project includes finding good wireless technology and sensors, designing an algorithm for detecting car using the sensor, designing the interface of the app, and, finally, improving the usability and reliability of the system.

**End Result (MVP):**

The MVP would be a working version of the app, which includes detecting object in blind spot area and alerting the user with sound. The MVP should also contains a detailed technical documentation for future improvement.

Some advance functionalities, that might be included but not required for MVP, are beautiful UI and sound, auto startup of the app.