



Collision Observant Detection System

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Motive and Goals

Motive

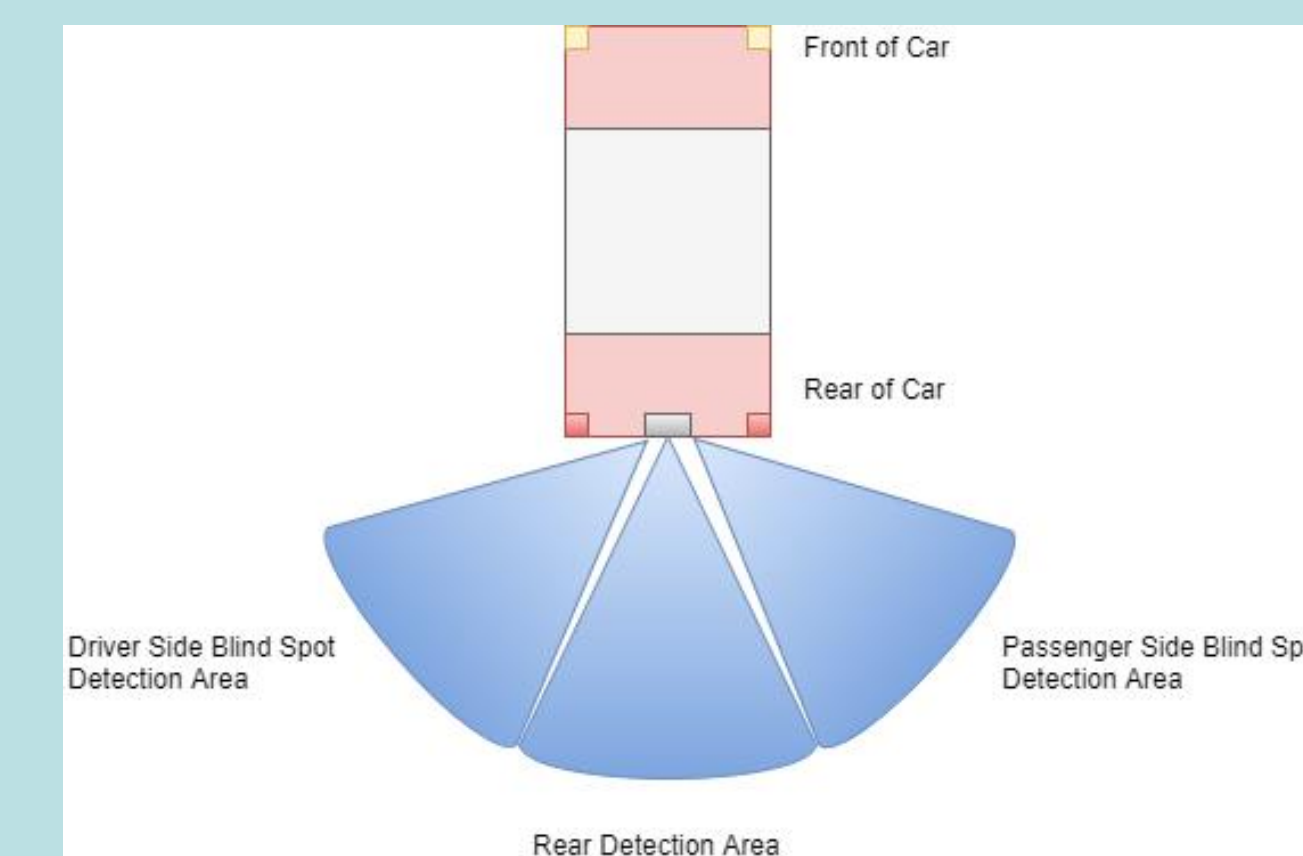
- Older vehicles out on the road do not have collision detection system unlike modern cars.
- Many aftermarket sensor systems are expensive and require lots of setup and do not have a user interface.

Goals

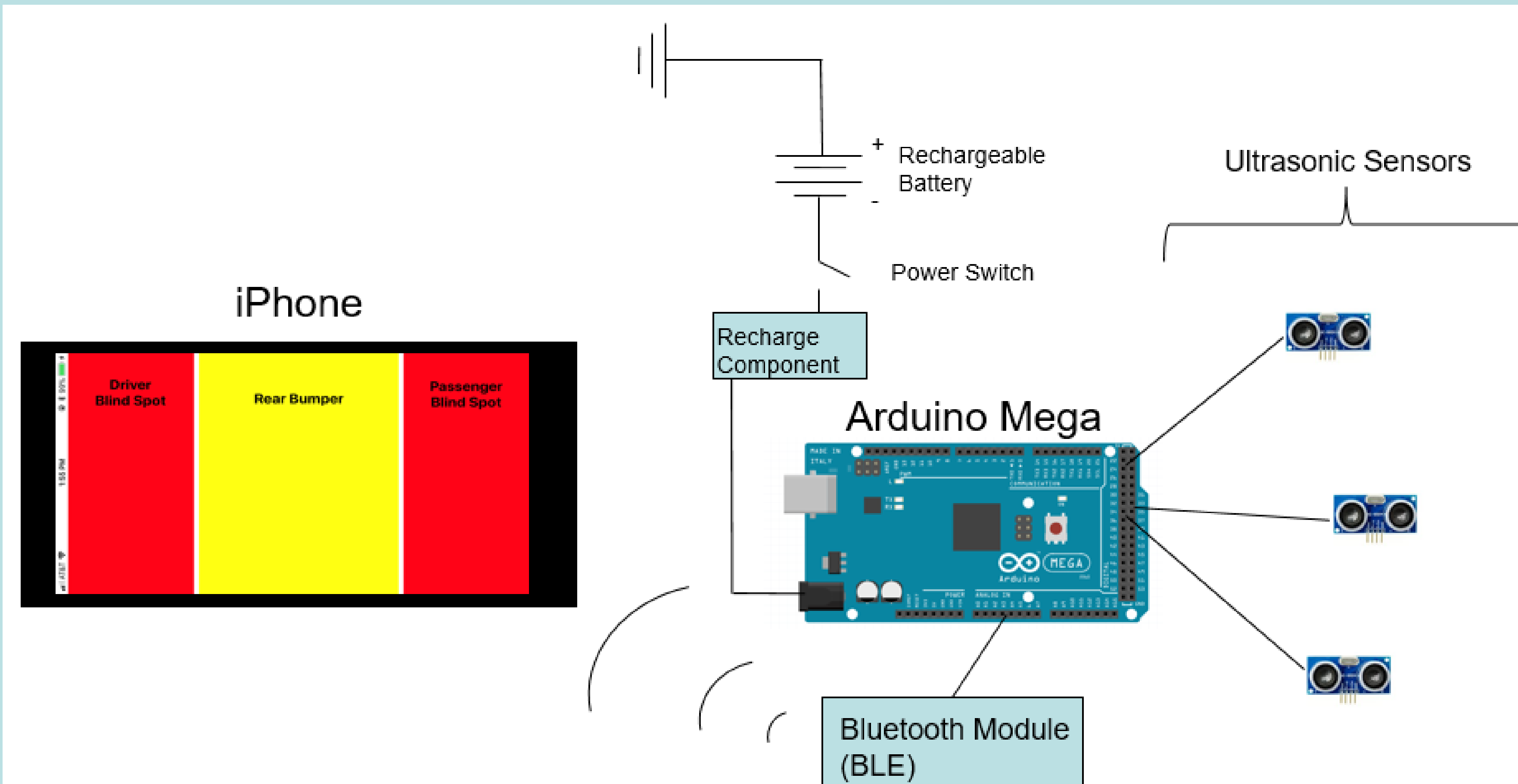
- Make an “aftermarket” system that can be hooked onto almost any vehicle and is cost efficient.
- Improve the quality of life for drivers who own vehicles without collision detection systems or cannot afford vehicles that have built in systems.

Overview and Design

- The system is designed to be attached on the rear bumper of a vehicle to detect objects in a vehicles blind spots and rear. As an object gets near any ultrasonic sensor, sensor information is sent to the phone over Bluetooth.
- The hardware consists of an Arduino Mega, three ultrasonic sensors, a Bluetooth module, and a rechargeable component that is powered by a rechargeable battery. The case for the system was designed and 3D printed to meet our purposes.
- The software consists of using a iPhone application that was implemented to interact with the hardware over the Bluetooth Module.



Implementation



Team Members

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