

ANTI-COLLISION SYSTEM FOR VEHICLES

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“I declare that this report entitled “*Anti-collision System for Vehicles*” is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.”

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## ABSTRACT

Additional visual and audio assistance to drivers could help to avoid accidents. Thus this device is created to help drivers to estimate safe distance between vehicles and provide alert signal once the speed limit is exceeded. Hence, this electronic device used to provide the driver the measurement of the distance between the car and the car in front and monitor the car speed limit without distracting the attention of the driver.

The circuit was equipped with two ultrasonic sensors, LCD display, red LED, two buzzers and the pushbutton and its operation based on the distance measurement reading and the relationship between engine's RPM and speed. Ultrasonic sensor is used to measure the distance between the vehicle that we drive and the vehicle in front of by putting the sensor at both sides in front of our vehicle. The LCD display provides the reading measured by both of the sensors. The buzzer will be activated when the distance measured between two car captured by the either two sensors is less than one metre.

For the speed limit device, the LED will blink once per second and the buzzer will starting to beep when the speed limit is reached. Through the combination of these two features, it can help to reduce accidents and may saving more lives as well as improves safety.

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