

VEHICLE BLIND SPOT DETECTOR

Prepared by: Chen Vui Fung

ABSTRACT

In this project, a system is built which able to monitor the vehicle blind spots area and alert the driver when other vehicles are present. It is controlled by a PIC16F876A microcontroller, which has 28 pins.

A PING Ultrasonic Range Finder sensor builds up a system which is capable of detect and measure the distance (in mm unit) of the closest object in front of the sensor. It works by transmitting an ultrasonic burst and providing an output pulse that corresponds to the time required for the burst echo to return to the sensor.

The ultrasonic sensors continuously monitor the presence, direction, and velocity of vehicles in the lane. The control module alerts the driver by lightning the warning indicator, which are LED when any vehicle moves into the blind spots area. The alert indication will be a yellow or red light. A yellow LED gives the warning of to be caution while red LED gives the warning of danger. The PING Ultrasonic sensor, it is like a digital measuring tape where I point the sensor to an object, press the read button and the LCD will display the distance of the object in millimeter unit.

***Keywords:** PING Ultrasonic sensors, LED, LCD, PIC16F876A