

## ABSTRACT

Driver often having a difficulty when he want to park the vehicles on to narrow places ,it caused park location has decreased. Some driver crashed electricity pole, crashed wall, and more serious the driver crashed other vehicles its cause disadvantages for vehicles owner and other people.

Purpose this final project is to design prototype of parking car using censored ultrasonic based on microcontroller. The system using microcontroller as principal system control. As distance detector using ultrasonic sensor module made in by PARRALAX that consist of transmitter and receiver. For system output using LCD for distance displayed, led and buzzer for sound indicator.

The result from design parking car prototype based on microcontroller is the device can measuring parking distance. Distance has measured will displayed to the LCD in centimeter unit as well as with the status if distance has measured more than 30 centimeter so status "SAFETY" will able displayed in to LCD and green LED will be a glow as sign in safety condition. If distance has measured is 29 cm till 20 cm so status "HATI-HATI" will able displayed in to LCD, green led turn off and change yellow led will be a glow, and if distance has measured is 19 cm til 0 cm so status "STOP" will able displayed in to LCD, yellow led turn off, and change red led on as well as sound off buzzer.

**Key words :** *Ultrasonic sensor, Microcontroller, Buzzer, LED, LCD*