

ABSTRACT

Communication between fellow convoy members is very important to keep no member left behind, one way to communicate with fellow convoy members, such as being able to use walkie talkie or cellular phone, it's just that way feels less efficient, besides that using both of devices may be endanger for the safety of the rider while riding his motorcycle.

In this final project will use VLC technology (Visible Light Communication) as a medium in communication system between convoy motorcycles, using HC SR-04 proximity sensor with Arduino UNO as microcontroller, by adding some indicators like LCD 16x2, LED, and buzzer. The design of this project using fritzing software.

The output of this final project is the implementation of proximity sensors on convoy motorcycles used to keep fellow convoy members proven helpful, with a maximum measurable distance of 3 m but more effective at a distance of 2 m . In addition , for the distance of convoy motor < 50 cm, the LED indicator, Buzzer and LCD will light up. and for motor distance of convoy > 50 cm hence the indicator is not lit.

Keyword : VLC technology, LED for motorcycle, photodiode, HC SR-04 proximity sensor, Arduino UNO.