ABSTRACT

So many traffic accidents that began from speed limit violation. Currently the traffic police still using a conventional speed detector. It is base realized Vehicle speed measurement device using light detection and ranging (LiDAR). LiDAR system work to determines the speed of moving vehicles by using light which emitting infrared light constantly. When the infrared light detecting the target then it will trigger to sampling time and speed.

The circuit consisting of an 1st Infrared Transmitter, 2nd Infrared Transmitter, 1st Infrared Receiver, 2nd Infrared Receiver, microcontroller and LCD. The 1st Infrared Receiver is used a censor to trigger the start signal is turn on the timer function and 2nd Infrared Receiver as a censor to turn off the timer stop signal on the microcontroller. Start and stop censor is 25 cm. Time data obtained and processed microcontroller for calculating the vehicle speed censor-stop censor distance. Data displayed through the LCD.

In the final project the speed measuring only allows just one vehicle target on one path there is a difference average time value between timer of microcontroller with real time for 0.036 s.

Keywords: vehicle speed, infrared censors, microcontroller
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