## ABSTRACT

Motorized vehicles are a means of transportation used by the majority of people, because by motorized vehicles long trips can be reached in a short time. With the large number of motor vehicles, a system was made. The system is a collection of devices that are regularly interrelated with one another to form new functions. A system is very important to be applied in various things so that with the system we can supervise and control a certain situation.

The system that regulates motorized vehicles is the Vehicle Traffic Control System, it aims to make motorists more orderly especially when at a crossroads, but there are still many people who still break them, causing the risk of accidents. With these problems, this system research is conducted so that motorized motorists become more orderly and careful when they are at a crossroads thus reducing the risk of accidents.

Making a monitoring and warning system motor vehicle at crossroads using a prototype, the camera will be installed as if it were above the crossroads then the camera results will be processed using image processing methods to detect motor vehicles that cross the red light stop which will then there is a warning when a vehicle crosses the red light stop. By implementing this system at the crossroads it is hoped that motorists can be more careful in driving so as to reduce the number of accidents.

Keywords — monitoring and warning systems, motorized vehicles, image processing, computer vision