

E-POLICE FOR MODERN CITY TRAFFIC

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ABSTRACT

Unemployment, mounting debts, layoffs, and bankruptcy are few of the many causes of recession. Recession has always been a perfect motive for crimes. As the crime rate increases, the duties of the law enforcers are never-ending and very exhausting. Not many are willing to take up the challenge of upholding the law while putting their own lives on the line. This project “E-Police for Modern City Traffic” was designed to enlighten the tasks of police officers by substituting machines to replace them. This was designed to compensate the lack of numbers of the police force. Trivial matters such as red light violation and speeding should not require the presence of a police officer in the future, robotics and machines would be sufficient.

This project is divided into 2 parts which is controlled by a PIC 16f877A micro controller. It has 44 pins and is suitable for this project because this project requires 2 different systems interfaced together. The first part would be the speed sensor. This speed sensor would act as a Doppler sensor that regular police officers use to detect speeding vehicles. A singular ultrasonic sensor would be used to calculate the vehicle velocity. By programming the ultrasonic sensor, it would be possible to calculate the speed of the vehicle moving in a straight line. The second part would be the traffic light detection. Two LED’s will be used to simulate a real traffic light. Infrared sensors will be used to detect if a vehicle is crossing when the traffic light is red.