ABSTRACT

Along with the rapid development of technology of course everyone is inclined to do everything with easy and practical. Traffic lights are lights that are used to regulate traffic movement at a crossroads. Because its functions are so important that traffic lights should be controlled by easy as possible. Most of the traffic light control while still using a timer and have lights at the time of the initial setting. It causes the operator is difficult to change the timing of traffic lights in each direction at all times. the usage of remote control to control the lights would be one practical application of the principles and flexible working, the usage of remote control to be one option to make it easier to control the traffic lights. Remote will emit infrared light (infrared) light which is having a high frequency that can not be seen by human vision. By using the infrared sensor infrared rays emitted by the remote control can be accepted for further processing into microcontroller. microcontroller use as the brain to control the lamp is the right choice. microcontroller programs written using assembler language is generally small and can be executed quickly by microcontroller. Real Time Clock (RTC) that is connected directly to the microcontroller for setting the timing reference automatically becomes the complement components in the design of the control device. With RTC timing setting traffic lights can be set easily in seconds using the remote control corresponding traffic conditions. Based on the measurements results of the distance from the remote control to the infrared sensor, at a distance of 1-4 meters, sensors still can receive data input from the remote control. However, at a distance of more than 4 meters, sensors can not accept data input from the remote control.

Keywords: Traffic Lights, Remote Control, Infrared Sensors, microcontroller, Real Time Clock.