

ABSTRACT

Television is one of the most popular entertainment media. However, people never aware of the power that used to turn on a television. Sometimes people let their television stay on even though no one is watching television. This Final Project entitled “*Perancangan dan Realisasi Sistem Televisi Otomatis Berbasis Mikrokontroler AT89S51*” try to conserve power used to turn on a television, by utilizing the PIR sensor to detect body’s temperature and motion from the people, so TV will automatically turn off if there’s no people detected in front of television.

The principle working of this tool is an automatic on-off television with PIR sensor. PIR detection system of this sensor is used to detected human in a room, so the microcontroller will turn on the system when the PIR detects the presence of someone in the area of sensor coverage. The system is a microcontroller that already programmed by assembly language to turn on the relay which will connect the power supply of remote. The remote specially use to transmit the infrared to one point of the receiver infrared of television, so television can turn on or turn off automatically according to a program that has been set in the microcontroller. Beside that, this tool will protect the condition of the area while the television is turn on.

Keywords: *Microcontroller AT89S51, Assembly Language, PIR Sensor.*