

ABSTRACT

Electricity was important in our lives. Every activity we do is helped by electricity, begin from lighting to setting the room temperature. Many people let live electronic equipment happen, especially at room lights. The burden of lighting in a room is usually manually operated by humans. With current technological advances, human intervention in operations is trying to be reduced. An automatic switch will facilitate operation. Effective and efficient to avoid the lights from running in vain without activity. Another goal is to avoid wasting electricity. This research took the topic of the use of temperature sensors and PIR motion sensors in a room. This automatic electric switch uses input in the form of a PIR motion sensor, including a pyroelectric sensor that has a response when there is a change in heat source heat and an MLX 90614 ESF sensor. The sensor will then activate a relay that will regulate the living or dead conditions of the lamp. The human body produces heat energy radiated with infrared. Sensors of human body heat will be received by the sensor for the response of PIR sensors and temperature sensors. In essence, this PIR and temperature sensor will be a detector. Detector that functions as an electronic switch that will disconnect and connect the load of the lighting.

Keywords: *PIR Sensor, MLX 90614 ESF Sensor, Relay*