

## **ABSTRACT**

Resident, boarding houses, apartments, hotels and etc often carelessly with the electricity and even forget to turn off the electricity when leaving home. This kind of habit will make the electricity fee swelled and make detriments to its owners.

The purpose of this final project is to make an automatic switch breaker with stopwatch based on microcontroller that has already digitized, the main system of this tool uses microcontroller as its main controller. To disconnect and connect the line or the electronic wires to the electronic tool, it uses solid state relay (switch replacement).

The results obtained from the design and testing, this product can turn non and turn off the electronic device automatically in a residential community that is connected with this product as a burden. Tools are made also has the same accuracy with the precision stopwatch application contained in mobile phones, so the tool is set up time will work in accordance with the actual time. In testing the accuracy of the time performed for 60 seconds, the result accuracy of 100%, which means working in microcontroller stopwatch that there is no delay with a stopwatch phone.

**Keywords** : Microcontroller, LCD, Solid State Relay, Stopwatch