

## **ABSTRACT**

Excessive use of electronic devices are often happens unconsciously caused due to lack of awareness in using the electronic device as needed so do not extravagant. The impact of excessive use of electronic devices is the increase in electricity bills. That requires tools that can reduce or limit the use of electricity. The problems that arise in this case is how a device can operate in accordance with the desired time so as to limit and save electricity.

Product design of automatic timer switch breaker based on microcontroller is designed using a microcontroller, keypad, LCD, buzzer, RTC and relay. The microcontroller its use in the program as a central controller. Keypad and LCD function as input and output devices.. Buzzer serves as an indicator that the tool has been operate and as an. RTC serves as storage time so the time of tools and real time can be same. Relay functions as a switch that is set by the microcontroller which will operate according to the time.

The results obtained from the making of this final project is to help reduce the excessive use of electronic equipment with a switch that can be set with a timer for future periods as appropriate. By using the power triac which can be used up to 3250watt. Tool made have 100% accuracy that has been measured using a stopwatch to determine the wait time between the tool and the burden is on.

**Keywords:** Microcontroller, buzzer, LCD, RTC, relay, keypad