



## **Development of a Light Dependent Automatic- Off Timer for House Holds Electronics**

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### **Abstract**

This work was undertaken to design and construct a device that would be of use to persons who are in the habit of falling asleep while watching or listening to music. The scope of work ranges from the conceptualization of the idea and theories behind the operation of the device to the stage of packaging the design.

The unit provides automatic disconnection of the appliances from the alternating current (AC) mains supply upon the expiration of a pre-set time delay period. The system works by detecting a transition from light to darkness in a room, which triggers the device into a time-out mode. During the time delay period, the appliance e.g. CD (Compact Disk) player is connected to the mains supply. Disconnection occurs after the pre-set time delay period elapses.

### **Keywords**

Automatic; Timer; Switching; Schmitt trigger; Relay; Oscillator.

### **Introduction**

A switch can simply be defined as a device operated to turn electric current ON or OFF. Switches are important devices in electrical and electronics circuit design. They are