

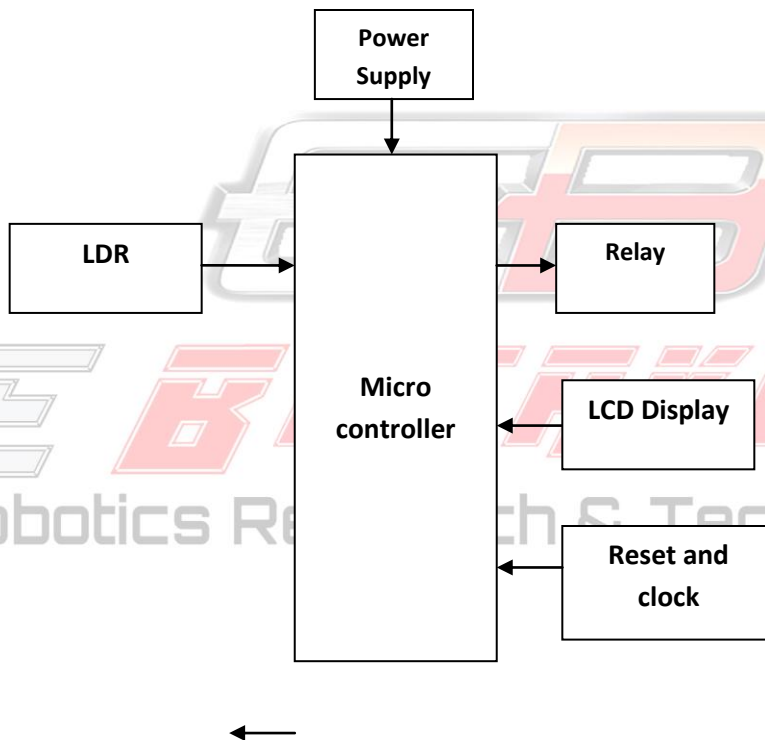
LIGHT OPERATED RELAY

Description:

A light-activated switch for operating switch-controlled computer software or communication devices has been developed. A light emitting diode is attached to the user. An array of photo-sensors is placed about six inches away. A switch is activated when the light beam is aimed at the photo-sensors. The light emitted by the transmitter is modulated at a frequency of 1 KHz and the receiver is tuned to that specific frequency. The system is therefore insensitive to other light sources or ambient light changes. The activation of the switch requires a small but controlled movement of the user such as a slight turn of the head. Unintentional motions are less likely to trigger the switch. The system has been used by an 8-year-old child with spastic cerebral palsy and has demonstrated a satisfactory performance. Thus, the light-activated switch provides improved specificity over contact or motion-sensing switches.

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Block diagram:



Hardware requirements:

1. Micro controller
2. LCD
3. LDR
4. Relay

Software requirements:

1. Keil software
2. Embedded c

