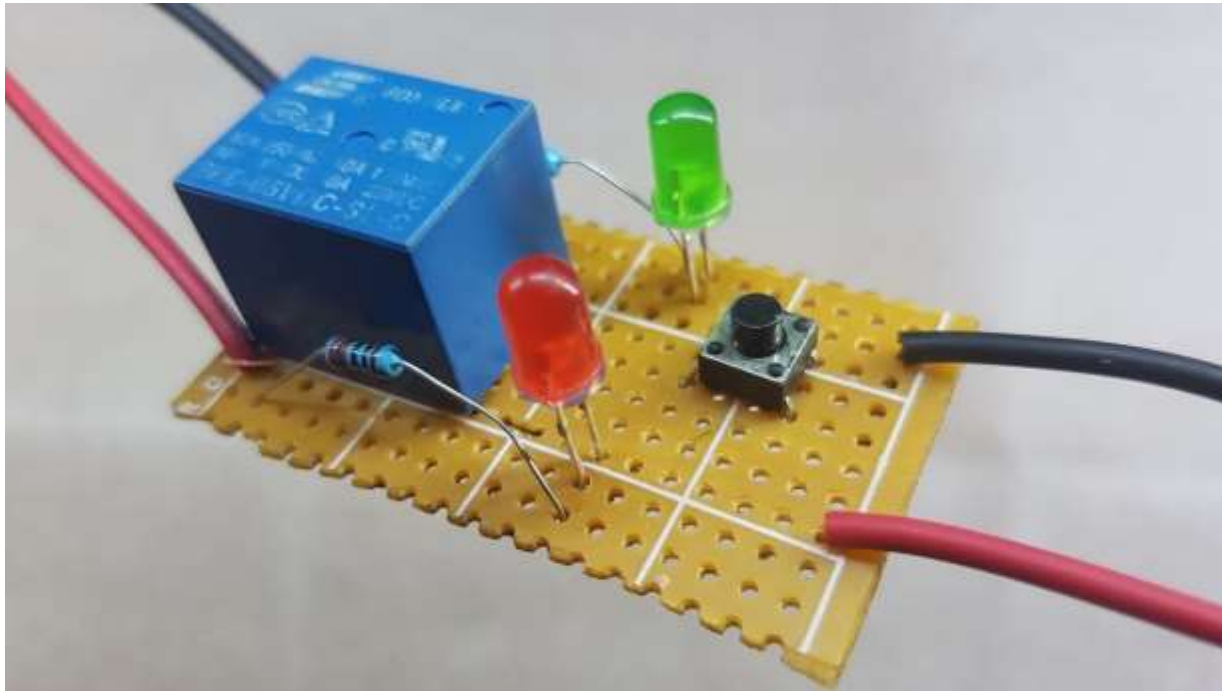


Short Circuit Protection Project



Relay

- A relay is classified into many types, a standard and generally used relay is made up of electromagnets which in general used as a switch.
- Relay means the act of passing something from one thing to another, the same meaning can be applied to this device because the signal received from one side of the device controls the switching operation on the other side.
- So relay is a switch which controls (open and close) circuits electromechanically.



Working principle of Relay

- The main operation of this device is to make or break contact with the help of a signal without any human involvement in order to switch it ON or OFF.
- It is mainly used to control a high powered circuit using a low power signal. Generally a DC signal is used to control circuit which is driven by high voltage like controlling AC home appliances with DC signals from microcontrollers.



Switch

- When the button is pressed, the **switches** turn **ON** and when the button is released, the **switches** turn **OFF**.
- A **switch** is a device whose operation is perceptible by touch. The click response of the button lets the user feel the response of the operation from the **switch**.



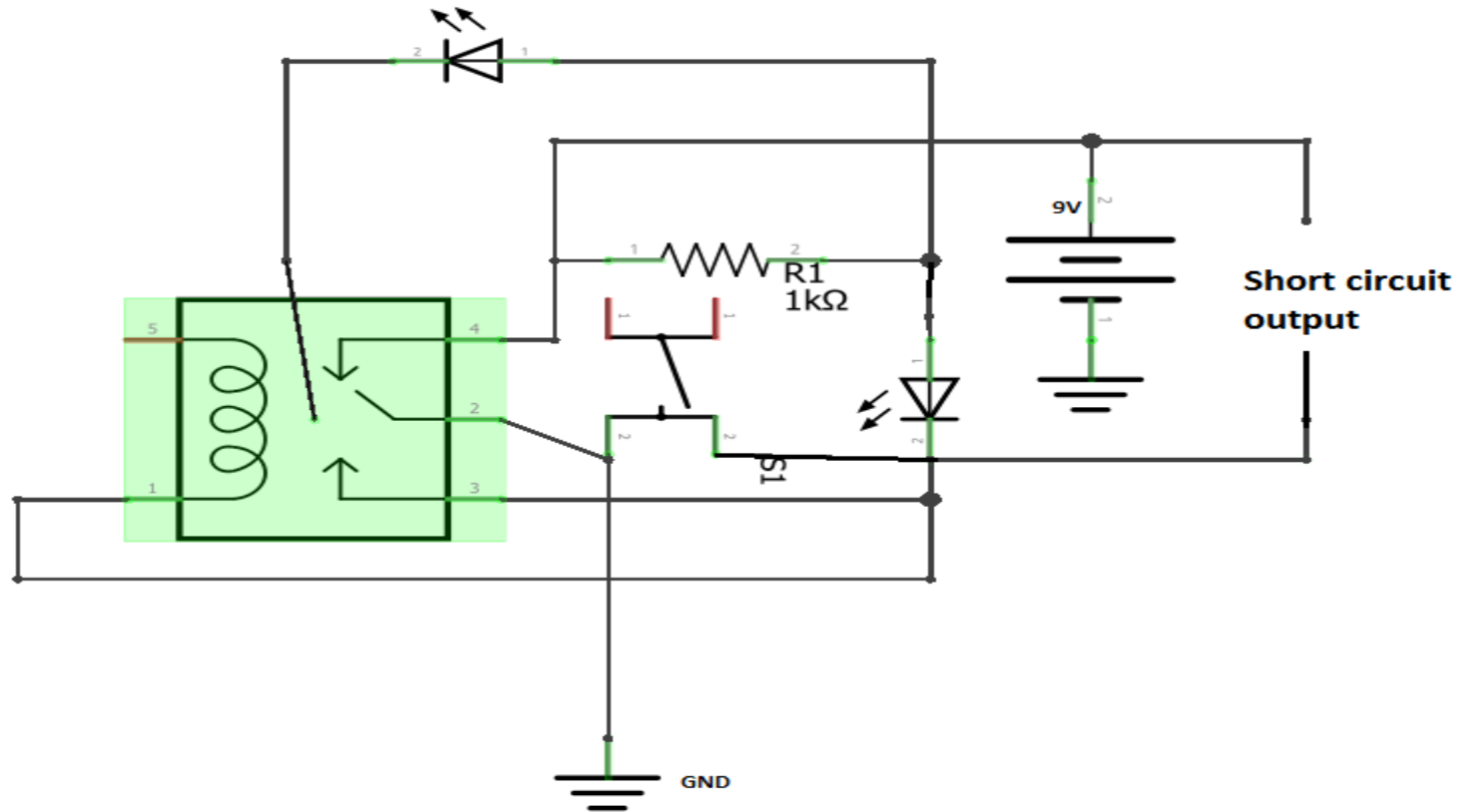
About Project

Short circuit protection is protection against excessive currents or current beyond the acceptable current rating of equipment and it operates instantly. As soon as an overcurrent is detected, the device trips and breaks the circuit.

Components Required

- Zero PCB
- Soldering Machine
- Soldering Wire
- Relay
- Switch
- LEDs
- Resistors(1kohm)
- Battery 9V
- Battery clap

Connection Diagram



Future Scope

Overload relays are used in a motor circuit to protect motors from damage caused by prolonged periods of overcurrent. Short circuit protection is protection against excessive currents or current beyond the acceptable current rating of equipment and it operates instantly.

Project Link : <https://youtu.be/BOQHUBTCY9I>