Relay module

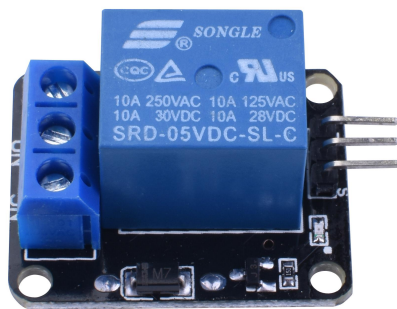**Overview**

In this lesson, you will learn how to use a relay.

Component Required:

1 x Mega2560 R3

1 x relay module

**Component Introduction**

Relay:

A relay is an electrically operated switch. Many relays use an electromagnet to mechanically operate a switch, but other operating principles are also used as in solid-state relays. Relays are used where it is necessary to control a circuit by a low- power signal (with complete electrical isolation between control and controlled circuits), or where several circuits must be controlled by one signal. The first relays were used in long-distance telegraph circuits as amplifiers. They repeated the signal coming in from one circuit and re-transmitted it on another circuit. Relays were used extensively in telephone exchanges and early computers to perform logical operations.

 A type of relay that can handle the high power required to directly control an electric motor or other loads is called a contactor. Solid-state relays control power circuits with no moving parts, instead using a semiconductor device to perform the switching. Relays with calibrated operating characteristics and sometimes multiple operating coils are used to protect electrical circuits from overload or faults. In modern electric power systems, these functions are performed by digital instruments called "protective relays".
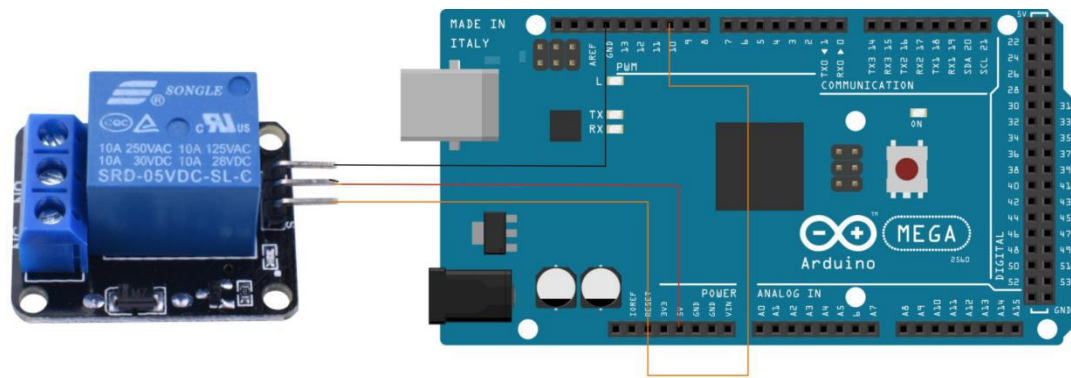
Below is the schematic of how to drive relay with Arduino

Connection

Schematic
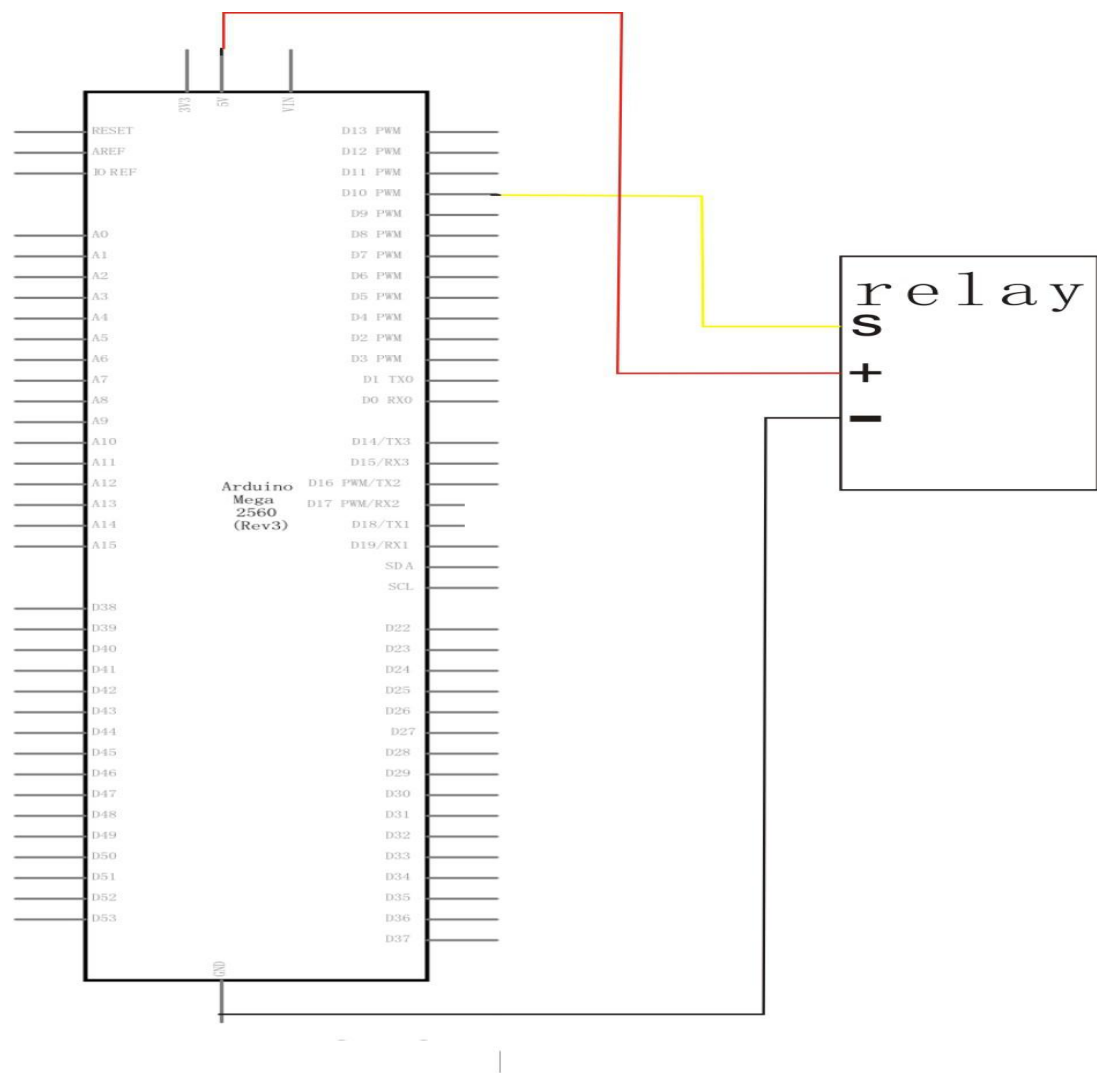
Wiring diagram

Code

After program loading, Led bright 5 seconds, extinguish 5