Experiment 8

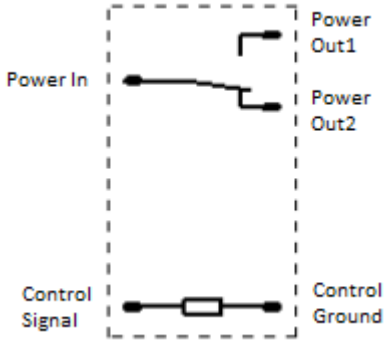
Relay

Outline

In this experiment, it is expected from you to,

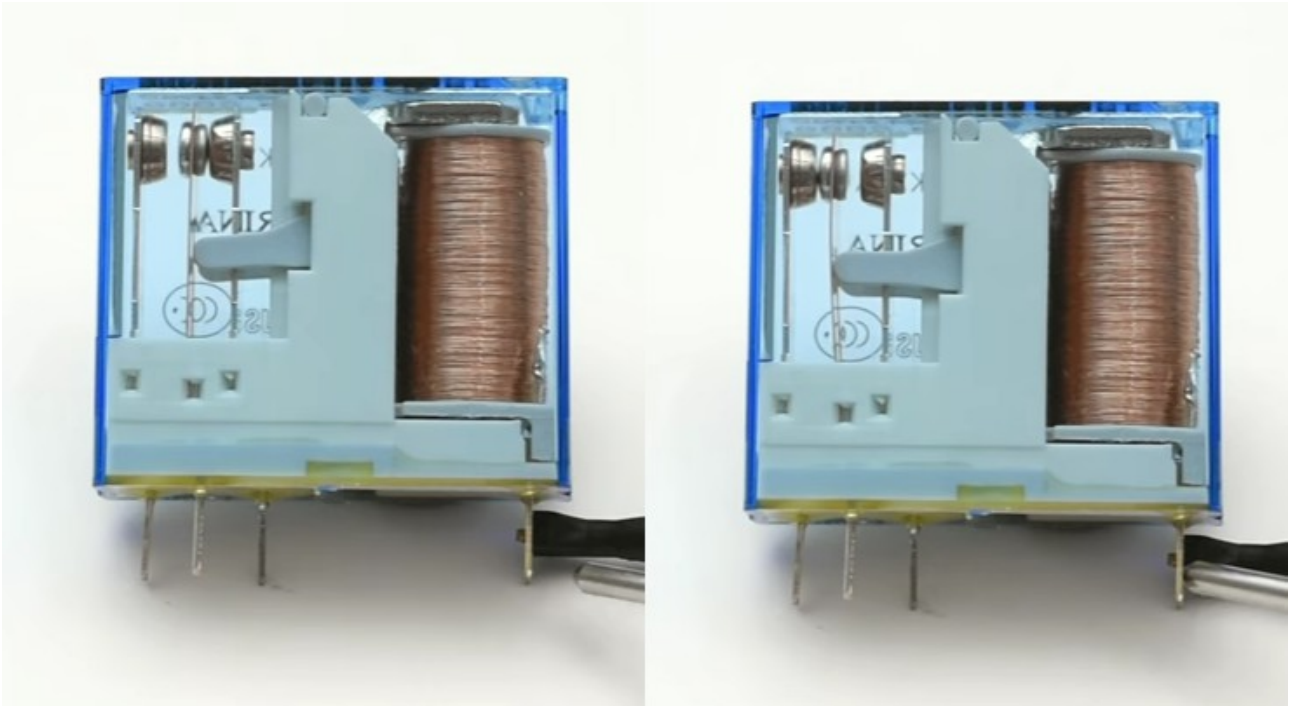
1. Learn the relay structure and usage
2. Assemble and test the relay circuit
3. Modification

1. Relay



Structure of 5-Pin SPDT Relay

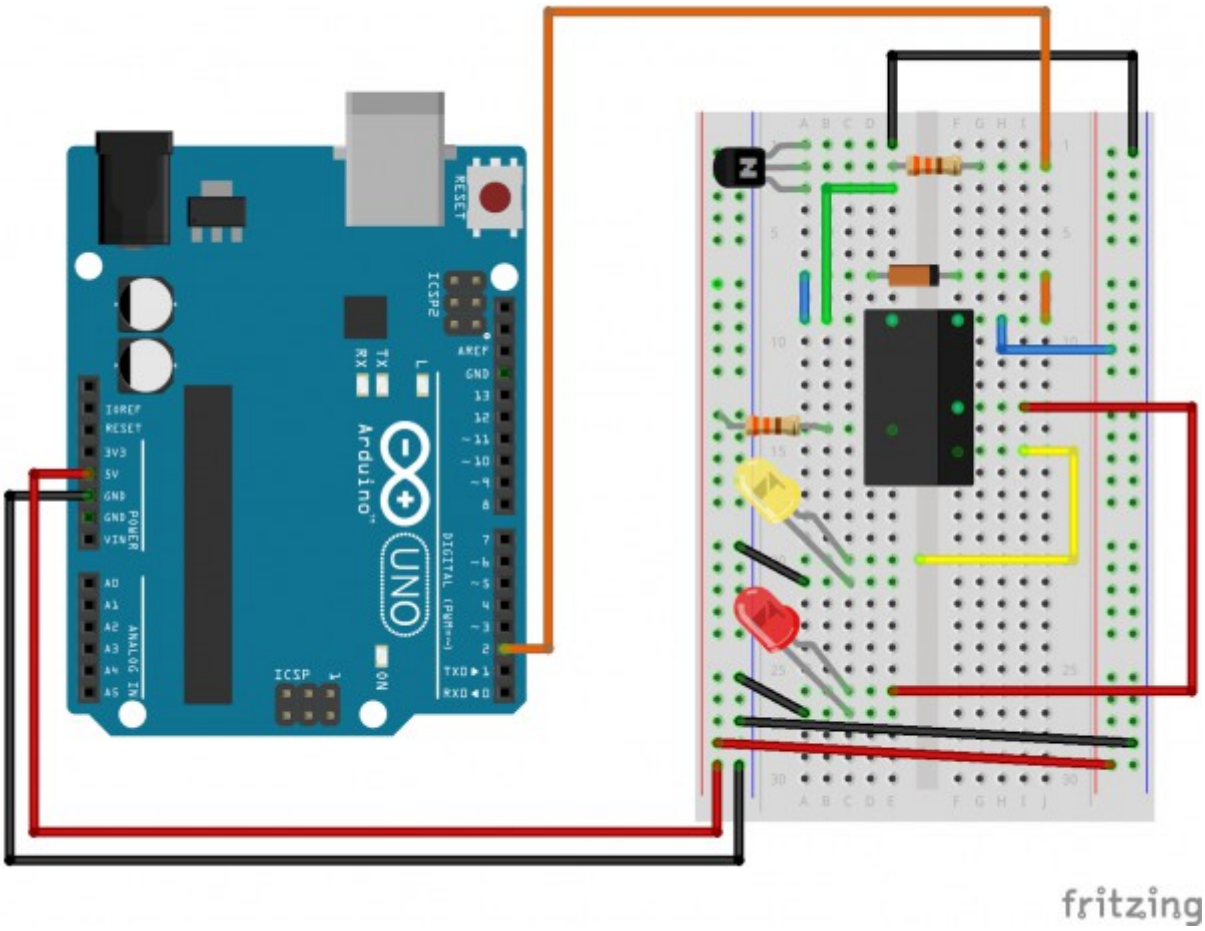
Relays are electrically operated/controlled switches. Control signal(s) decides the position of the contact terminal(s).



Cutaway View of 5-pin SPDT Relay

2. Assembling the Relay Circuit

Required Parts



Fritzing Diagram of the Circuit

1. Select your resistor (330 Ω) by using the color code table
2. Connect your components as shown in the diagram
3. Verify and upload your code to the arduino board
4. Observe the result and compare it with the expected outcome

Expected Outcome: LEDs should turn on and off in order and you should hear the relay's clicks.

3. Testing The Relay Circuit

1. Try to find the direction of your diode that let the current flow.
    - To do that you can use a multimeter to check the resistance posed in each direction
    - If you do not have a multimeter, you can assemble a simple LED circuit and try each direction of your diode

Modification

Use a relay, a LED and a photoresistor, as follows

1. When photoresistor exposed to the light turn off the LED
2. Turn the LED on otherwise