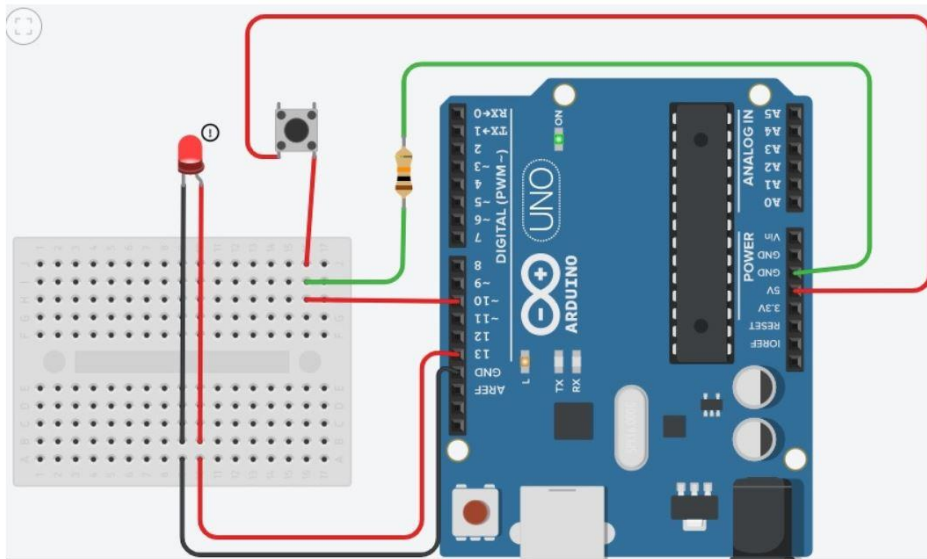


Exp 3

Circuit diagram:



Theory:

Concept used:

In this experiment we use various concepts as listed:

1. How to blink LED with the help of switch.
2. How ground provide proper connection in switch.
3. Programing in the Arduino UNO.
4. Connection of the switch, resistor and arduino.
5. Faradey's law of electromagnetic induction.

Learning and Observations:

In this experiment we learnt about:

1. New command in programming the Arduino Uno.
2. We learnt about the analog pins of the Arduino Uno.
3. We learnt about the input function of the digital pins.
4. How to blink LED with the help of switch.

Observations:

1. If we set the value of delay less than or equal to 50ms the change is not noticealbe.
2. If don't use resistance with ground still some current received by the pin number 13.

3. We can obtain different patterns which we can change with the help of switch.
4. If we change the delay time from 1000ms to 500ms, the blinking speed of LED becomes double.

Precautions:

1. LED's p terminal should be connected to Arduino digital pin and n terminal should be connected to the ground pin of the Arduino Uno.
2. Resistance of the Arduino Uno board should be less than the resistance which we used with the ground.
3. Connections should be tight.
4. Don't forget to set the pin mode of 13 as input pin.

Learning Outcomes:

From this experiment we learn and acquire skills about:

1. Programming the Arduino.
2. Importance of ground in switch branch.
3. Application of digital pin of Arduino Uno as input pin and output pin simultaneously.