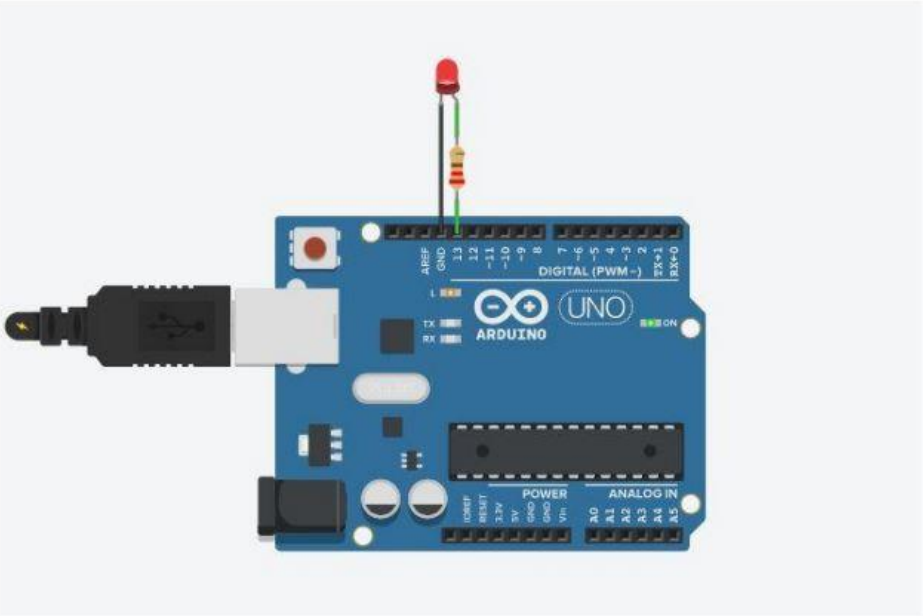
Exp 1

Circuit Diagram:



Theory :

Concept Used:

Various concept used in this experiment as listed:

1. The code used for Arduino Uno
2. p-n Junction.
3. Connection of Led with Arduino Uno

The code used for Arduino Uno:

The code is the instruction on the basis of which micro controller works. In this experiment we code for the blinking of LED.

p-n junction:

A p-n junction diode is one of the simplest semiconductor devices around, and which has the characteristics of passing current in only one direction. By applying a negative voltage (reverse bias) results in the free charges being pulled away from the junction resulting in the depletion layer width being increased.

Connection of LED with Arduino Uno:

The LED's p terminal is connected to the output digital pin of Arduino Uno board and n terminal of LED is connected with the ground pin of the Arduino board.

Learning and Observations:

In this experiment we learnt about:

1. P terminal and n terminal of LED.
2. Code used in Arduino Uno board.
3. Connection of LED with Arduino uno board..

Observation:

1. If we change the delay value, it directly effect the blinking speed of LED.
2. If we connect p terminal of LED to the ground pin then LED doesn't glow.

Precautions:

1. Connections should be proper.
2. N terminal of LED should be connected to the ground of the Arduino Uno board.

Learning outcomes:

From this experiment we learn and acquire skills about:

1. Basic code of Arduino Uno used for blinking of LED.
2. Digital pin provide 5V voltage.
3. Application of Digital pins of Arduino Uno Board.
4. Proper orientation of LED with Arduino Uno Board.