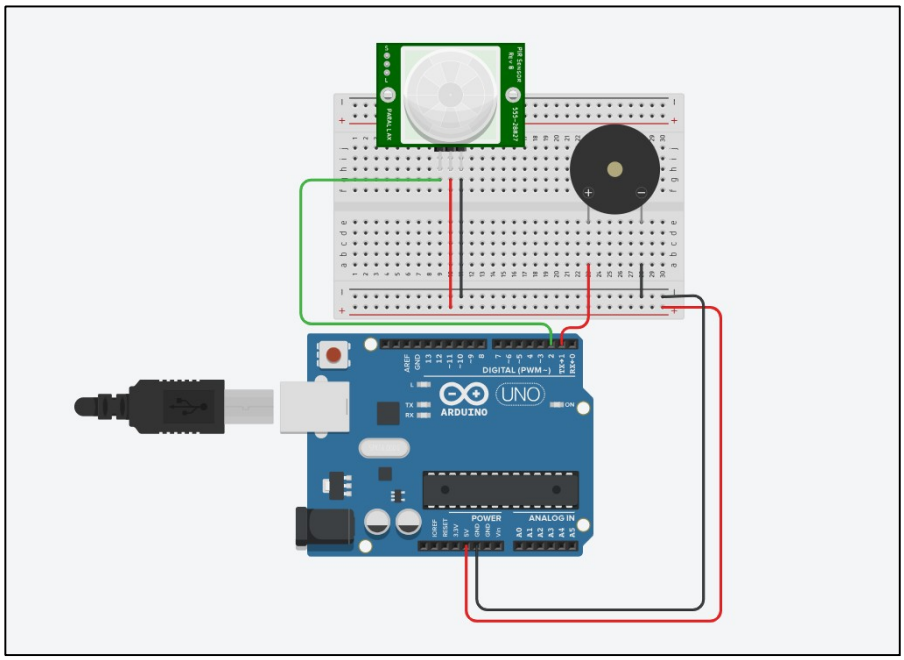
Experiment-3 Object Detection with PIR Sensor

Aim:- **Detect the presence of an object and trigger an LED using a PIR sensor.**

Apparatus:-



Software Code:-

```
int x;
void setup()
{
 pinMode(2, INPUT);
 pinMode(1, OUTPUT);
}
void loop()
{
 x =  digitalRead(2);
 if(x==HIGH){
 digitalWrite(1,HIGH);
 }
 else{
   digitalWrite(1,LOW);
 }
}
```

New Commands Used:-

i. **void setup() :** This function is called once when the program starts. It is used to initialize settings, such as pin modes and serial communication.

ii. **pinMode() :** This command configures the specified pin to behave either as an input or an output.

iii. **void loop() :** This function runs continuously after the setup() function. It contains the main logic of the program.

iv. **digitalWrite() :** This command sets the specified digital pin to either HIGH (turns on the LED) or LOW (turns off the LED).

v. **delay() :** This command pauses the program for the specified number of milliseconds (1000 ms = 1 second). It is used to create a delay between readings.

Conclusion:-

In this practical experiment, we successfully implemented a PIR (Passive Infrared) sensor to detect motion and trigger an LED as an indicator