

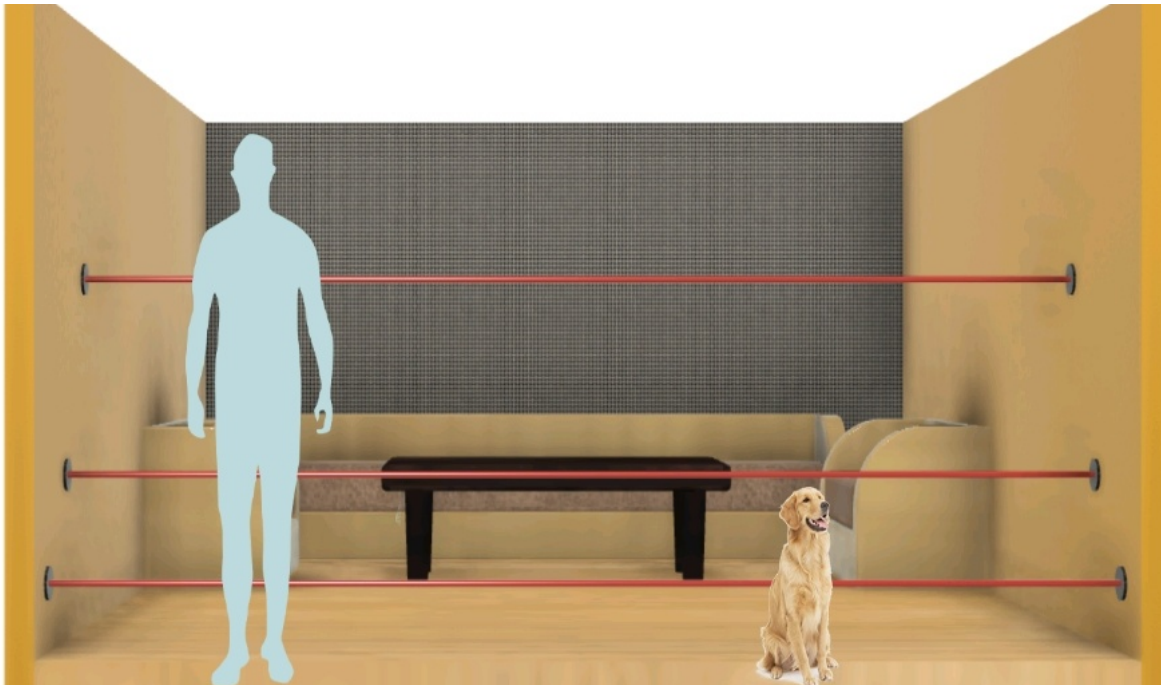
HOME SECURITY SYSTEM USING ARDUINO

ABSTRACT:

A light sensitive diode is placed in the line of sight of laser in a room across the entrance. The diode is connected to the Arduino. Till the light from the laser is falling on the photo sensitive diode, the circuit will be complete.

Upon intrusion through door or window, the intruder will step in the path of the laser, hence opening the circuit. This will trigger a response from the Arduino. (lights and alarms)

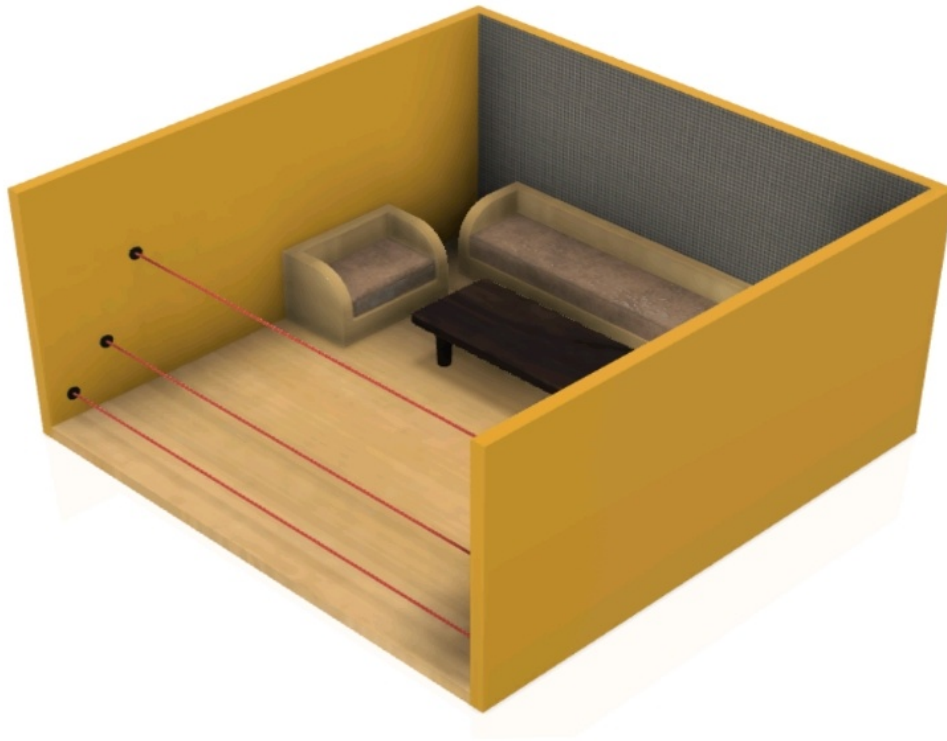
To increase the efficacy of the system multiple laser lights and diode could be set up. Sequentially activated Laser placed at different heights rule out the possibility of a pet or a falling object accidentally triggering a response as well as increase the chances of detection of an intruder.



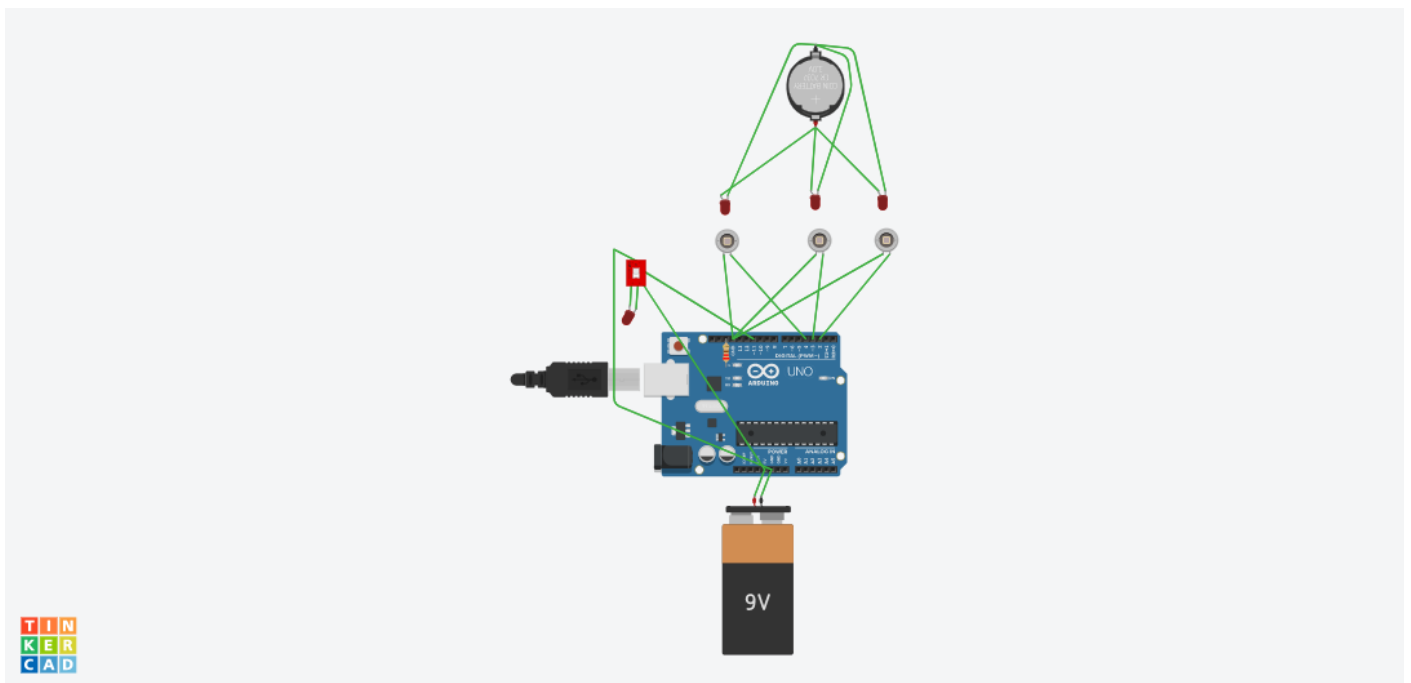
Since an Intruder will effectively cross in front of all the laser placed at different height, we can be more sure of a trespassing rather than a pet or any small object accidentally triggering response.

Different responses can be programmed at each level of detection, starting from just lights and alarms being turned on, to calling the owner and local law enforcement for help.

Due to use of an Arduino, we can benefit from its modular design to incorporate various other sensors, such as to detect temperature and water level change, to further caution the owner of a fire or flood.



CIRCUIT DESIGN:



ARDUINO CODE:

```
#define sensor1 2
#define sensor2 3
#define sensor3 4
#define switch 11
int s1,s2,s3;
void setup()
{
  Serial.begin(9600);
```

```

pinMode(sensor1,INPUT);
pinMode(sensor2,INPUT);
pinMode(sensor3,INPUT);
pinMode(switch,OUTPUT);
digitalWrite(sensor1,LOW);
digitalWrite(sensor2,LOW);
digitalWrite(sensor3,LOW);
digitalWrite(switch,LOW);
}
void sensorRead()
{
  s1=digitalRead(sensor1);
  s2=digitalRead(sensor2);
  s3=digitalRead(sensor3); //s1 s2 and s3 are three sensors at different heights arranged to predict
the height of the obstacle or person
}
void loop()
{
  sensorRead();
  if(s1==HIGH && s2==HIGH && s3==HIGH)
  {
    digitalWrite(switch,HIGH);
    Serial.println("OK");
    delay(2000);
    Serial.println("ATD+91*****;"); //your phone number
    delay(150000);
    Serial.println("ATH");
    digitalWrite(switch,LOW);
    delay(500);
  }
}

```