Prince Dr. K. Vasudevan College of Engineering and Technology

ASSIGNMENT- 1

PROJECT TITLE	**Personal assistance for seniors who are self reliant**
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ASSIGNMENT 1: Built a smart home in tinkercad. Using at least 2 sensors, led, buzzer in a circuit. Stimulate in a single code.
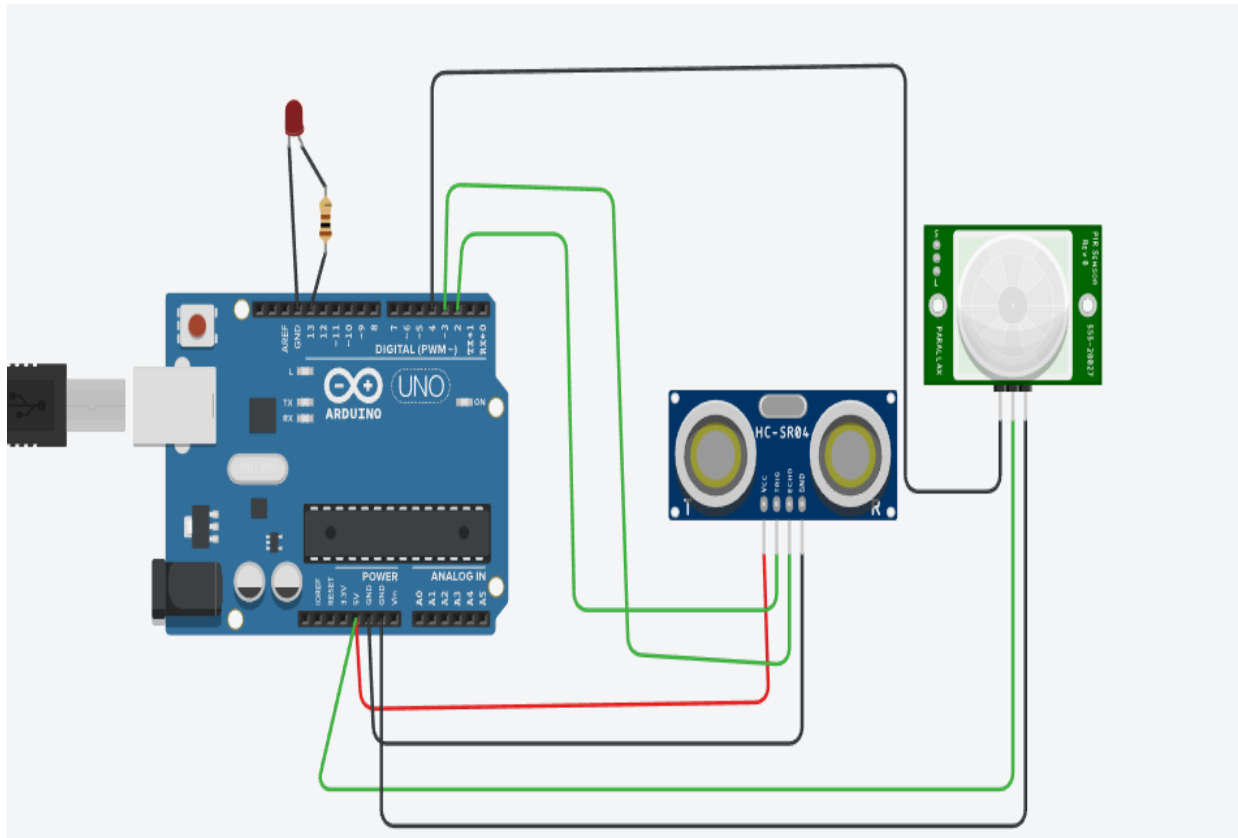
COMPONENT ARE USED :

• Arduino

• PIR

• LDR

• LM35

• DC Power source

• Relay Board of 2 Channel

CODE FOR THE CIRCUIT :

```
int trigger_pin=2;
int echo_pin=3;
int time;
int distance;
void setup()
{
  Serial.begin(9600);
  pinMode(trigger_pin,OUTPUT);
  pinMode(echo_pin,INPUT);
  pinMode(4,INPUT);
  pinMode(13,OUTPUT);
```

```cpp
}
void loop()
{
  digitalWrite(trigger_pin,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger_pin,LOW);
  time=pulseIn(echo_pin,HIGH);
  distance=(time*0.034)/2;
  if(distance<=10)
  {
   Serial.println("Door open");
   Serial.print("Distance=");
   Serial.println(distance);
   delay(500);
  }
  else{
   Serial.println("Door closed");
   Serial.print("Distance=");
   Serial.println(distance);
   delay(500);
   int p=digitalRead(4);
   if(p)
   {
    digitalWrite(13,HIGH);
    Serial.println("motion detected");
   }
   else
   {
    digitalWrite(13,LOW);
    Serial.println("not detected");
   }
  }
}
```

OUTPUT :

STIMULATION LINK:

https://www.tinkercad.com/things/hesL7row3n1-smart-home-1/editel.