**RAMCO INSTITUTE OF TECHNOLOGY , RAJAPALAYAM – 626 117**

**Department of Electronics and Communication Engineering**

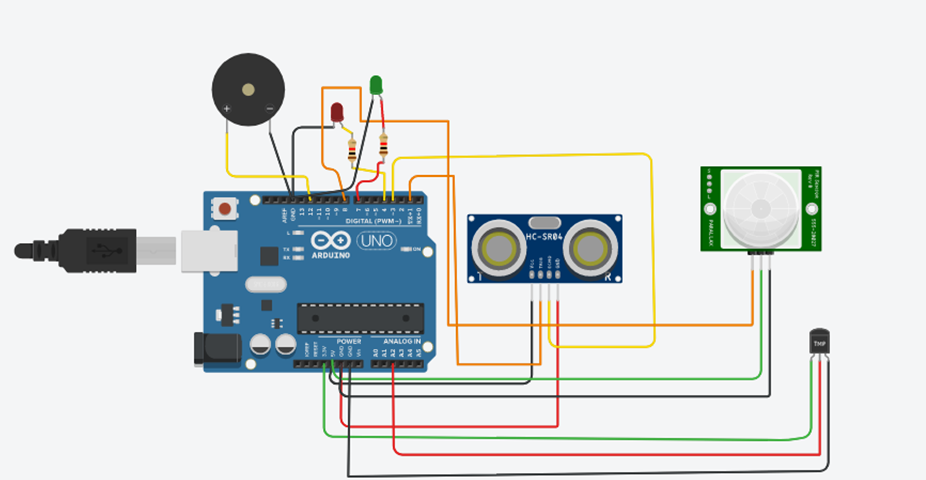
**IOT ASSIGNMENT**

**TOPIC : Build a smart home in tinkercad use atleast 2 Sensors, Led , Buzzer in a circuit . Simulate in a single code**

**NAME : HARINI . U**

**CODE :**  
int trig = 1;  
int echo = 3;  
void setup()  
{  
  pinMode(trig, OUTPUT);  
  pinMode(echo, INPUT);  
  Serial.begin(9600);  
  pinMode(8,INPUT);  
  pinMode(12,OUTPUT);  
}  
  
void loop()  
{  
  //ultrasonic sensor  
  digitalWrite(trig,LOW);  
  digitalWrite(echo,HIGH);  
  delayMicroseconds(10);  
  digitalWrite(trig,LOW);  
  float dur = pulseIn(echo,HIGH);  
  float dist = (dur\*0.0343)/2;  
  Serial.print("distance:");  
  Serial.println(dist);  
   
  //led  
  if(dist>=100)  
  {  
    digitalWrite(4,HIGH);  
  }  
  else  
  {  
    digitalWrite(4,LOW);  
  }  
   
  //motion sensor  
  int m=digitalRead(8);  
  Serial.print("motion detected:");  
  Serial.println(m);  
  if(m==1)  
  {  
    Serial.println("yes");  
  }  
  else  
  {  
    Serial.println("no");  
  }  
   
  //buzzer  
   if(m==1)  
  {  
    digitalWrite(12,HIGH);  
  }  
  else  
  {  
    digitalWrite(12,LOW);  
  }  
  //temperature sensor  
  double a= analogRead(A2);  
  double t=(((a/1024)\*5)-0.5)\*100;  
  Serial.print("Temp Value: ");  
  Serial.println(t);  
  delay(1000);  
   
  //led  
  if(t>=100)  
  {  
    digitalWrite(7,HIGH);  
  }  
  else  
  {  
    digitalWrite(7,LOW);  
  }  
   
  
   
}

**SIMULATION :**



**OUTPUT :**

