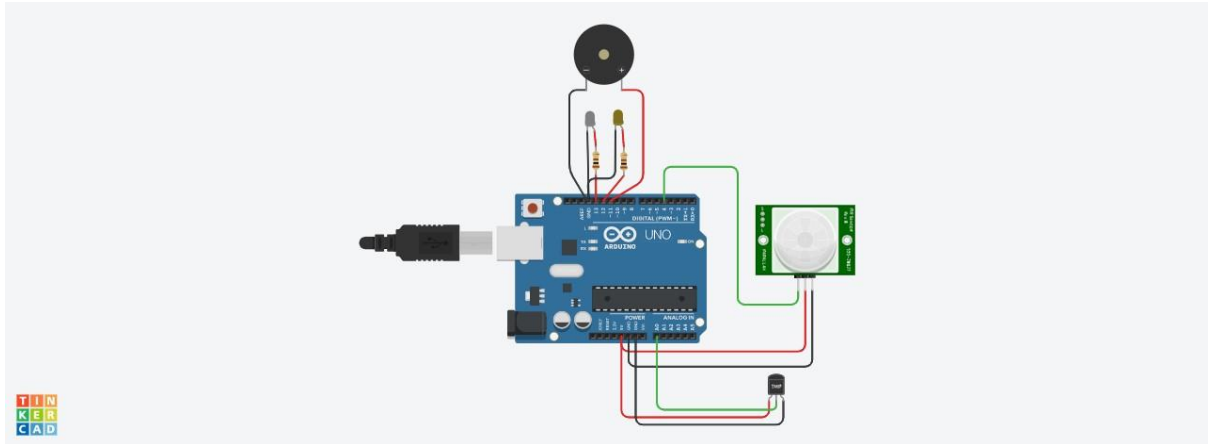


IBM -ASSIGNMENT -1 HOME AUTOMATION

(SMART KITCHEN)

CIRCUIT DIAGRAM:



CODE:

```
void setup()
{
  pinMode(4,INPUT);
  pinMode(13,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(11,OUTPUT);
  Serial.begin(1000);
}

void loop()
{
  int a=digitalRead(4);//Sense the motion inside the kitchen.
  double T=analogRead(A0);//sense temperature in the kitchen.
  double t=map(T,20,358,-40,125);//map the temp value. //-----
  -----
```

```

if(t>40&&t<50)
{
    digitalWrite(12,HIGH);//if temperature is between 40 to 50
//yellow light glows.
    Serial.println("\n\nthreshold temperature reached in kitchen");
}
else if (t>50)
{
    tone(11,200);//If temperature goes above 50
    //the buzzer is set on.
    Serial.println("\n\nvery high temperature...evacuate kitchen");
}
else
{
    Serial.println("\n\nnormal temperature in kitchen");
digitalWrite(12,LOW);  noTone(11);
}
//-----
if(a)
{
    digitalWrite(13,HIGH);
    //if moment is detected the light will glow for 5 minutes.
    delay(5000);//5 minutes is taken as 5 seconds.
    Serial.println("\n\nmotion in kitchen,lights are ON");
}
else
{
    digitalWrite(13,LOW);
    //if there is no motion after 5 minutes the light turns off .

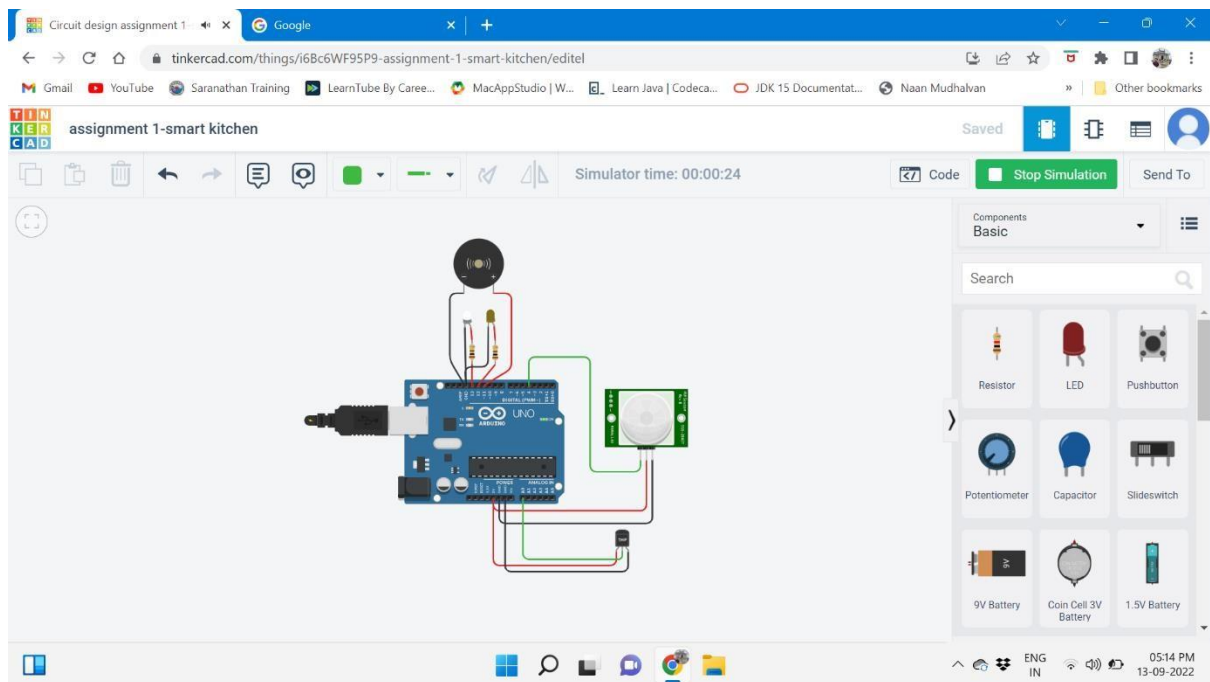
```

```
Serial.println("\n\nNo motion in kitchen,lights are OFF");  
}  
}
```

TINKERCAD LINK:

<https://www.tinkercad.com/things/i6Bc6WF95P9-assignment-1-smart-kitchen/editel?sharecode=i8fy7XXxKtk9PhwZOcHV6q1yuOYAkVQXrFHjPgdaAGE>

OUTPUT:



TEAM LEADER: SANTHOSH KUMAR M

TEAM MEMBERS:

MANOJ KUMAR M

YOGESH S

MOHAMED RIYAS A B