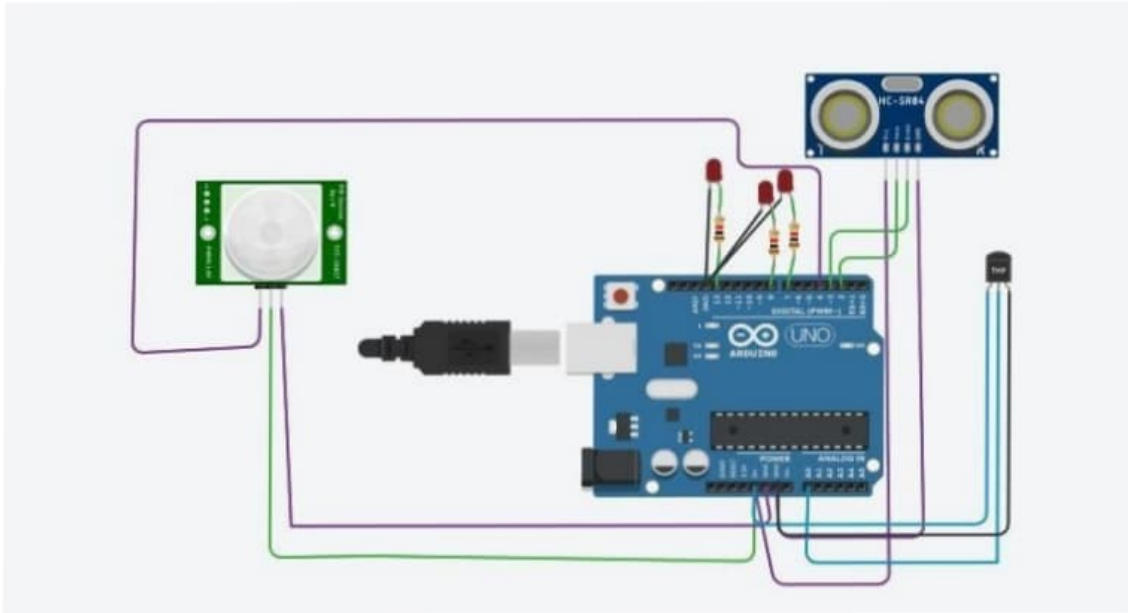


Assignment 1



Code for the circuit:

```
int t=2;

int e=3;

int l=13;

void setup()

{

  pinMode(t,OUTPUT);
  pinMode(8,OUTPUT);
  pinMode(7,OUTPUT);
  pinMode(e,INPUT);
  pinMode(l,OUTPUT);
  Serial.begin(9600);
}

void loop()

{
```

```
digitalWrite(8,0); int
a=digitalRead(4);
Serial.println(a);
if(a==1)
{
digitalWrite(8,1);
Serial.println("Motion detected!!!");
}

delay(1000);

digitalWrite(t,0);

digitalWrite(t,1);
delayMicroseconds(10);
digitalWrite(t,0); float
dur=pulseIn(e,HIGH); int
dis=(dur*0.0343)/2;
analogWrite(l,map(dis,2,320,255,0));

double b=analogRead(A0);

double t=(((b/1024)*5)-0.5)*100;
Serial.print("temperature value: ");
Serial.println(t); if(t>100)
digitalWrite(7,1); else
```

```
digitalWrite(7,0); delay(1000);
```

```
delay(1000);
```

```
}
```