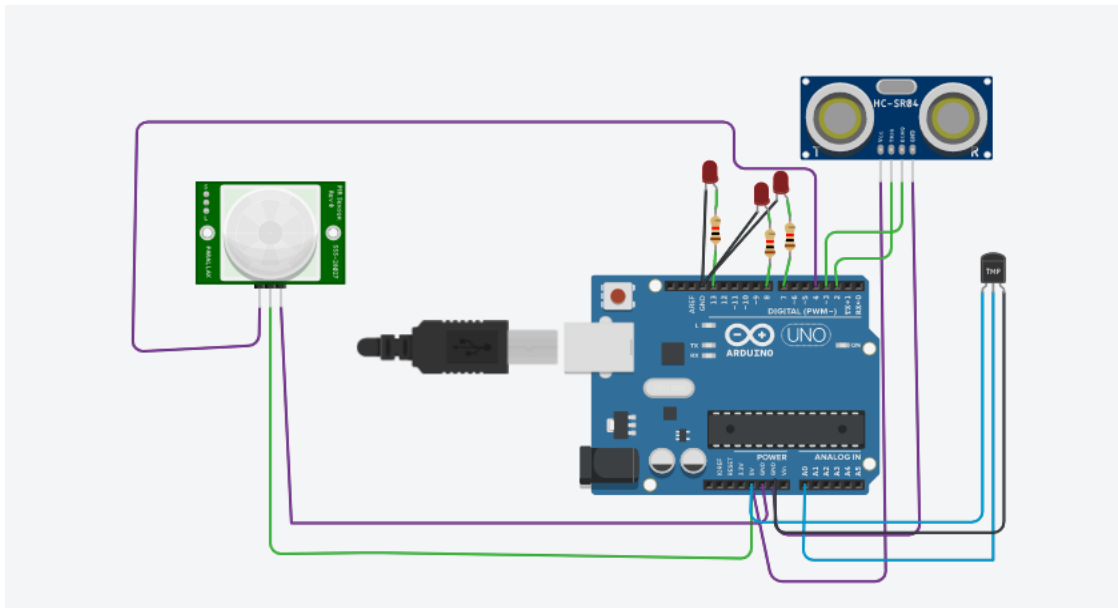# Assignment 1

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);
```

```cpp
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);
```

}

Team Members:

M.Nameera Nazinin

S.Siva Haritha

S.Devi Priya

N.Bhuvaneshwari