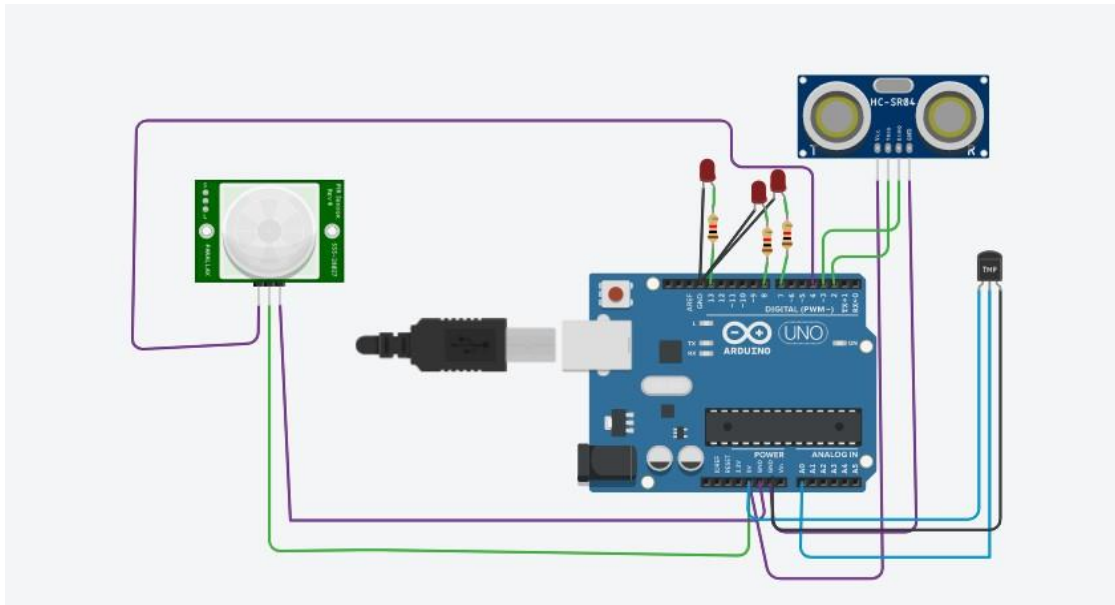


Assignment 1



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);
```

}

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