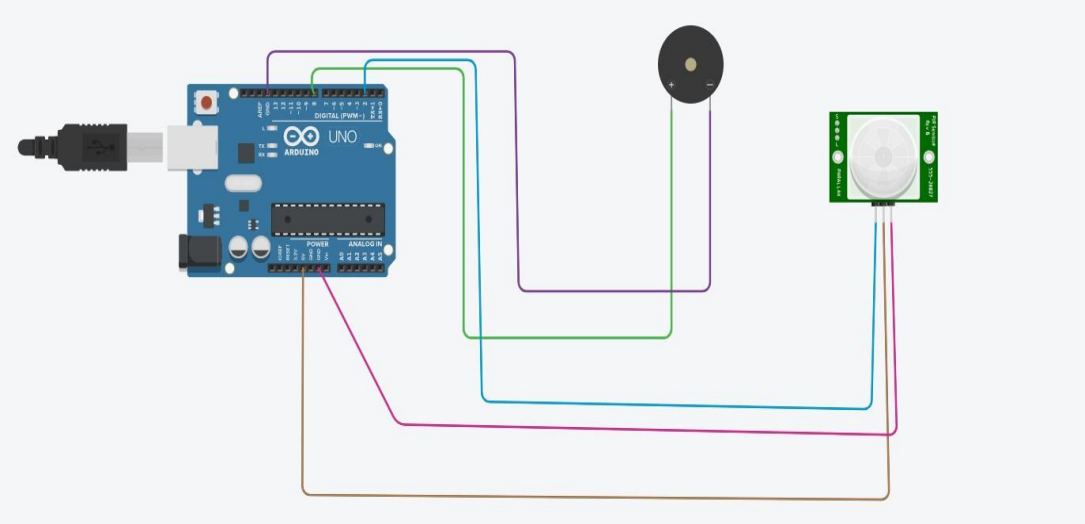
IOT Assignment

1. Alarm should give one sound when there is motion near PIR sensor.

Circuit diagram:



Coding:

```
void setup()
```

```
{
  Serial.begin(9600);
  pinMode(8,OUTPUT);
  pinMode(2,INPUT);
}
void loop()
{
  for(int freq=0; freq<=30000;freq++)
  {
    tone(8,freq);
    delay(1000);
    noTone(8);
    delay(500);
    int motion=digitalRead(2);
    Serial.print("Position is:");
    Serial.println(motion);
```

```
  }
}
```

Output:

Position is:0

Position is:0

Position is:0

Position is:1

Position is:1

Position is:1

Position is:0

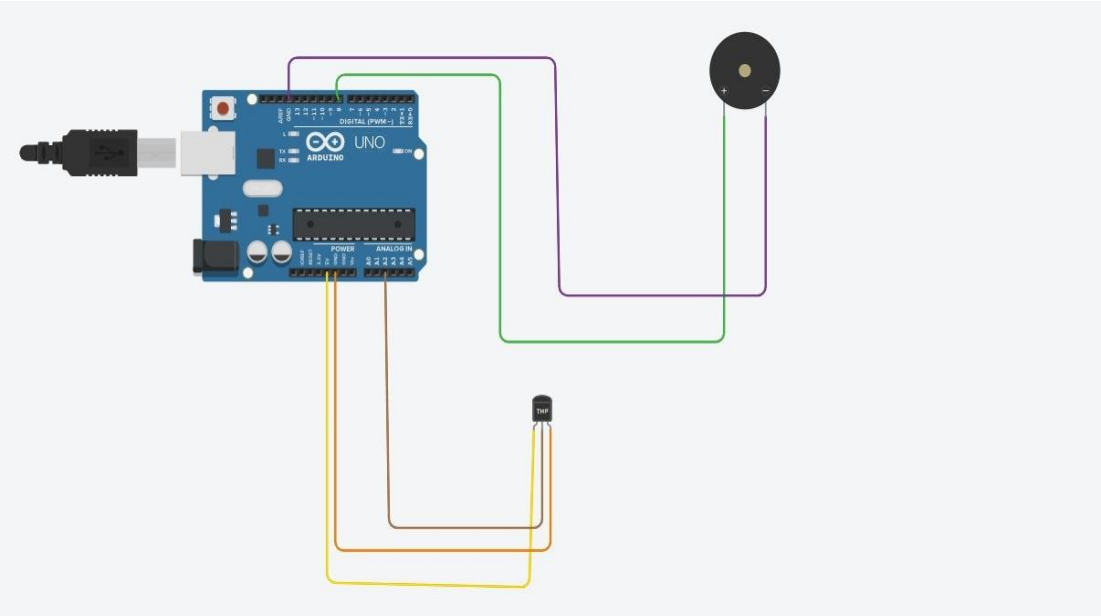
Position is:0

Position is:1

Position is:1

2.Alarm should give different sound when temperature is above 60 degree.

Circuit diagram:



Coding:

```
void setup()
{
  Serial.begin(9600);
  pinMode(8,OUTPUT);
}
void loop()
{
  for(int freq=0; freq<=30000;freq++)
  {
    tone(8,freq);
```

```
    delay(1000);
    noTone(8);
    delay(500);
    double data=analogRead(A2);
    double n=data/1024;
    Serial.print("Converted to analog
data:");
    Serial.println(n);
    double volt=n*5;
    Serial.print("Voltage data");
    Serial.print(volt);
    double off=volt-0.5;
    Serial.print("Serial off set data:");
    int sound=freq;
    sound=0.034*freq;
    if(sound>=60)
    {
```

```
      Serial.print("The Sound is High");
    }
    else
    {
      Serial.println("The Sound is Low");
    }
  }
}
```

Output:

data:0.15

Voltage data0.75Serial off set data:The Sound is Low

Converted to analog data:0.15

Voltage data0.75Serial off set data:The Sound is Low

Converted to analog data:0.15

Voltage data0.75Serial off set data:The Sound is Low

Converted to analog data:0.15

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Converted to analog data:0.15