

IOT Assignment

By:

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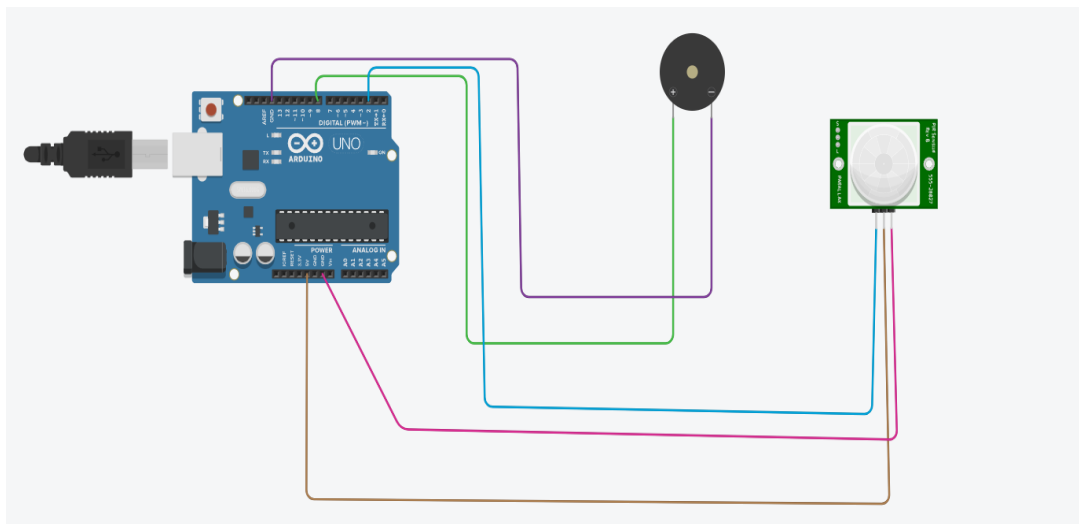
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1. Alarm should give one sound when there is motion near PIR sensor.

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

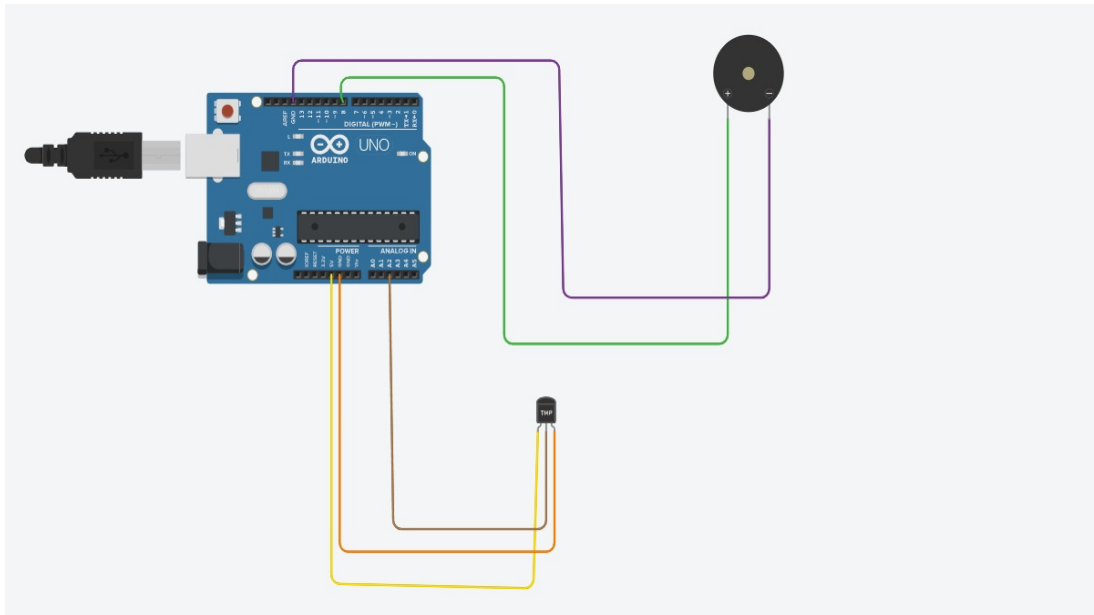
Position is:0

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

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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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