Assignment -1

Arduino

Assignment Date	18 September 2022
Student Name	Selvaraj V
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Maximum Marks	2 Marks

Question:

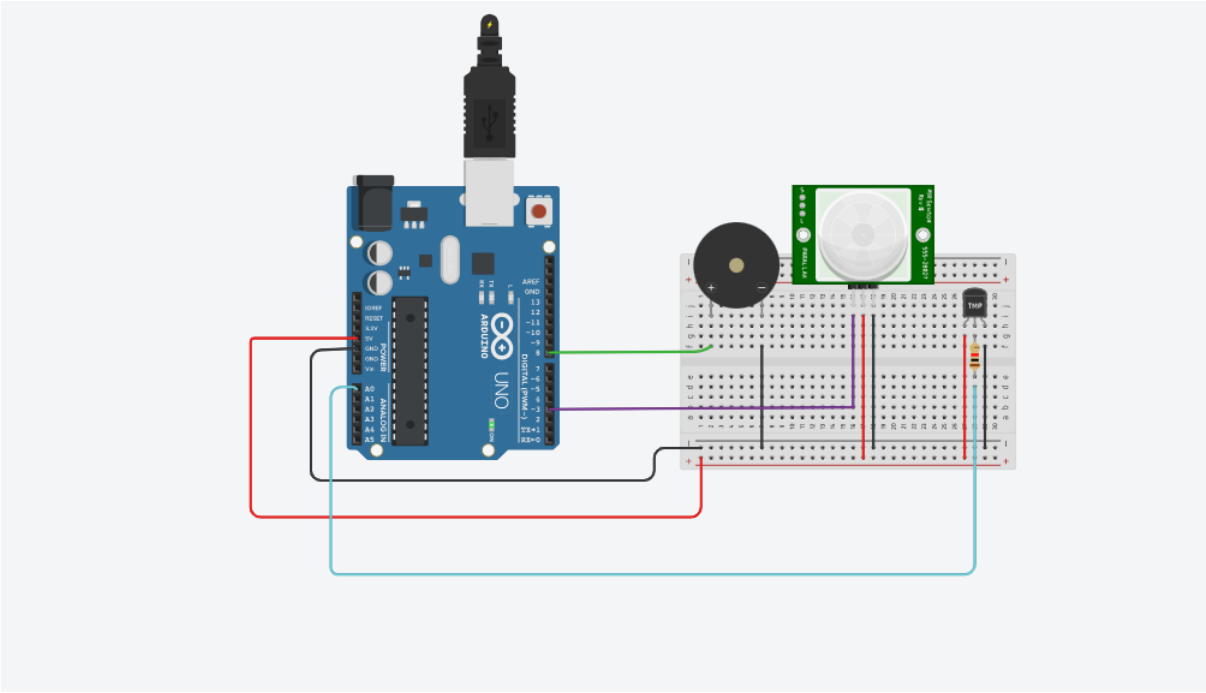
Using PIR sensor and tmp36(Temperature sensor), piezo alarm, Create a circuit with Arduino uno with below functionalities.

1. Alarm should give one sound when there is a motion near PIR sensor
2. Alarm should sound with different sound when the temperature is above 60 degrees.

Software Used:

- Tinkercad

Circuit:



Tinkercad simulation link:

https://www.tinkercad.com/things/iSwfUOJtiOG?sharecode=plU62asx_Q7YhmSoeXUJ5Abqo4XM09O6MUHgNStNR2c

Arduino Code:

```
#define temp A0
#define pir 3
#define buzzer 8
int motion =0;
double t;
void setup()
{
 pinMode(buzzer, OUTPUT);
 pinMode(temp, INPUT);
 pinMode(pir, INPUT);
 Serial.begin(9600);
}
void loop()
{
 motion = digitalRead(pir);
 int reading = analogRead(temp);
 t = (double)reading / 1024;
t = t * 5;
t = t-0.5;
t = t * 100;
 Serial.println("motion not detected");
 Serial.println("Temperature: ");
 Serial.println(t);
 if (motion == 1)
 {
 Serial.println("Motion Detected!!!");
 digitalWrite(buzzer,HIGH);
 delay(1000);
 digitalWrite(buzzer,LOW);
 delay(10);
 }
```

```
 else if(t > 60)
 {
 Serial.println("High Temperature Detected!!!");
 for(int i=0;i<3;i++)
 {
 digitalWrite(buzzer,HIGH);
 delay(1500);
 digitalWrite(buzzer,LOW);
 delay(500);
 i++;
 }
 }
 delay(1000);
}
```