Assignment -1

Arduino

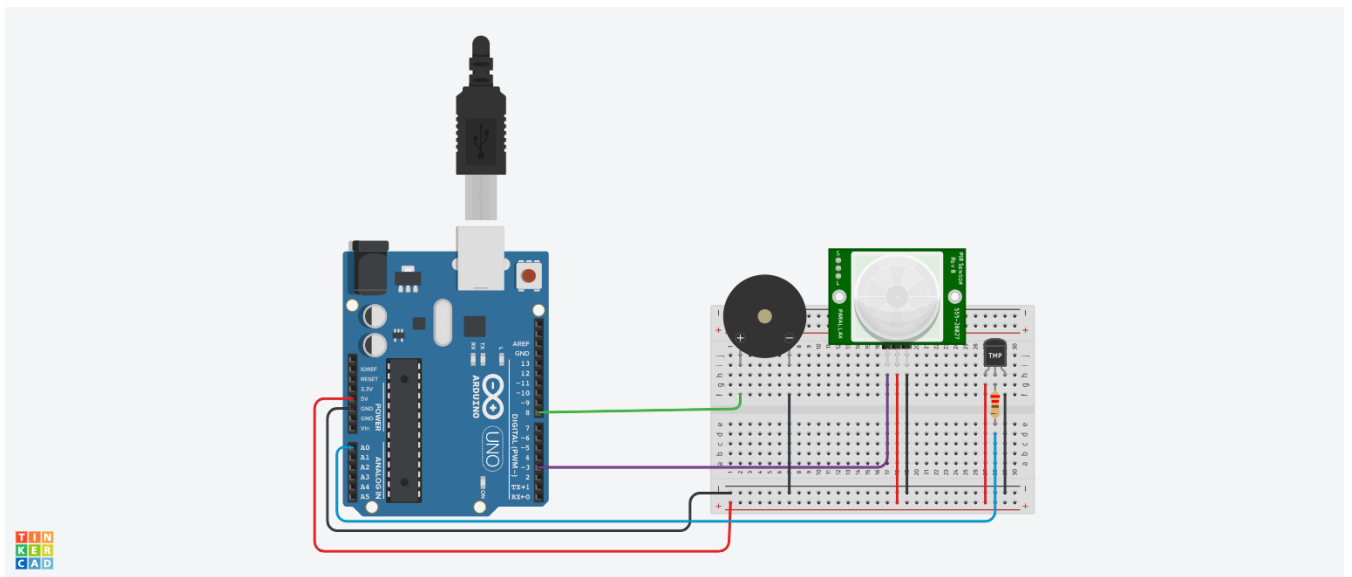| Assignment Date	18 September 2022
Student Name	Karthikeyan S
Student Roll Number	727619bec018
Maximum Marks	2 Marks

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/iGXuWxgKJtp?sharecode=CJikOk_bhyhzsijBPW9P-0Bcp35n5hNGMV8LImNJv4s

Arduino Code:

```arduino
#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);
}
```