Assignment -1

Arduino

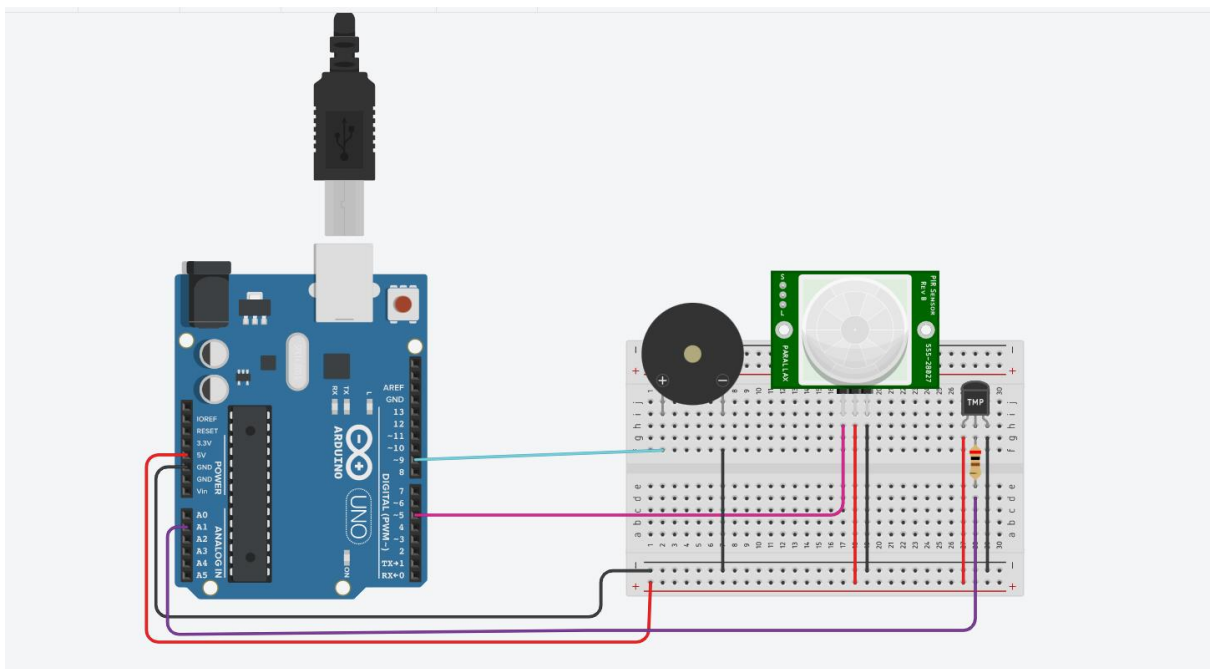| Assignment Date	18 September 2022
Student Name	Rajadurai S
Student Roll Number	727619bec034
Maximum Marks	2 Marks

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/iuaQU62I7aW?sharecode=fqRnHCpdccc-Nt3dydK5R55DOQv7zR7-oXBddLM9aXc

Arduino Code:

```
#define temp A1
#define pir 5
#define buzzer 9
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("movement unidentified");
  Serial.println("Temperature: ");
  Serial.println(t);
  if (motion == 1)
  {
    Serial.println("Movement identified!!!");
```

```
       digitalWrite(buzzer,HIGH);
       delay(1000);
       digitalWrite(buzzer,LOW);
       delay(10);
     }
     else if(t > 60)
     {
       Serial.println(" WARNING: High Temperature!!!!");
       for(int i=0;i<4;i++)
       {
       digitalWrite(buzzer,HIGH);
       delay(1500);
       digitalWrite(buzzer,LOW);
       delay(500);
         i++;
       }
     }
    delay(1000);
    }
```