

### Assignment -1

#### Circuit

Assignment Date	27 September 2022
Student Name	Nivash B
Student Roll Number	922519205072
Maximum Marks	2 Marks

#### Question-1:

Create circuit with Piezo alarm, PIR sensor, Temperature sensor with along sound in one manner if the temperature is above 60 C. Alarm should sound with another frequency if motion is detected in PIR sensor

#### Solution:

```
int baselineTemp = 0;
int celsius = 0;
int fahrenheit = 0;
void setup()
{
  pinMode(A0, INPUT);
  Serial.begin(9600);
  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(7, OUTPUT);
}
void loop()
{
  baselineTemp = 40;
  celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);
  fahrenheit = ((celsius * 9) / 5 + 32);
  Serial.print(celsius);
  Serial.print(" C, ");
  Serial.print(fahrenheit);
  Serial.println(" F");
  if (celsius < baselineTemp) {
    digitalWrite(2, LOW);
```

```
digitalWrite(3, LOW);
digitalWrite(4, LOW);
}
if (celsius >= baselineTemp && celsius < baselineTemp + 10) {
    digitalWrite(2, HIGH);
    digitalWrite(3, LOW);
    digitalWrite(4, LOW);
}
if (celsius >= baselineTemp + 10 && celsius < baselineTemp + 20) {
    digitalWrite(2, HIGH);
    digitalWrite(3, HIGH);
    digitalWrite(4, LOW);
}
if (celsius >= baselineTemp + 20 && celsius < baselineTemp + 30) {
    digitalWrite(2, HIGH);
    digitalWrite(3, HIGH);
    digitalWrite(4, HIGH);
    tone(7, 220, 100);
    delay(100);
}
if (celsius >= baselineTemp + 30) {
    digitalWrite(2, HIGH);
    digitalWrite(3, HIGH);
    digitalWrite(4, HIGH);
    tone(7, 220, 100);
    delay(100);
}
delay(1000);
}
```

**Output:**

