

Code:

```
int baselineTemp = 0;

int celsius = 0;

int fahrenheit = 0;


void setup()
{
    pinMode(13, INPUT);
    pinMode(7, OUTPUT);
    pinMode(6, OUTPUT);
    pinMode(A0, INPUT);
    Serial.begin(9600);


    pinMode(2, OUTPUT);
    pinMode(3, OUTPUT);
    pinMode(4, OUTPUT);
}


void loop()
{
    digitalWrite(7,digitalRead(13));
    digitalWrite(6,digitalRead(13));
    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);  
    }  
    if (celsius >= baselineTemp + 30) {  
        digitalWrite(2, HIGH);  
        digitalWrite(3, HIGH);  
        digitalWrite(4, HIGH);  
    }
```

```
    delay(1000);
}
```

OUTPUT:

