

Exercise 10_Make diodes light up depending on temperature.

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```
1  int val = 0;
2  float voltage = 0;
3  float celcius = 0;
4
5  void setup() {
6      Serial.begin(9600);
7      pinMode(2, OUTPUT);
8      pinMode(3, OUTPUT);
9      pinMode(4, OUTPUT);
10 }
11
12 void loop() {
13     val = analogRead(A0);
14     voltage = 5./1023.*val;
15     celcius = voltage * 100;
16
17     // print voltage and degrees
18     Serial.println(val);
19     Serial.print(voltage);
20     Serial.println("V");
21     Serial.print(celcius);
22     Serial.println("°C");
23
24     // turn on LEDs according to the temperature
25     if (celcius < 24){
26         digitalWrite(4, HIGH);
27         digitalWrite(2, LOW);
28         digitalWrite(3, LOW);
29     }
30
31     else if (celcius > 30){
32         digitalWrite(2, HIGH);
33         digitalWrite(3, LOW);
34         digitalWrite(4, LOW);
35     }
36     else {
37         digitalWrite(3, HIGH);
38         digitalWrite(2, LOW);
39         digitalWrite(4, LOW);
40     }
```

