RPi-Temperature-Display

https://github.com/karoltomaszewski/RPi-Temperature-Display

Hardware:

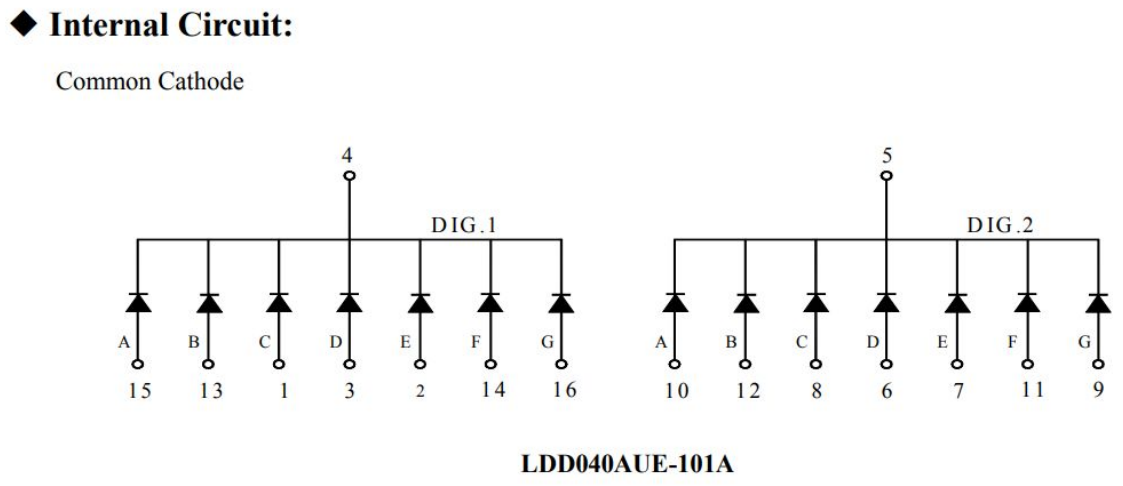
You need:

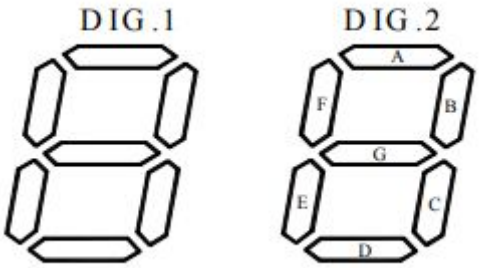
- Raspberry Pi (I'm using a Raspberry Pi 4 Model B 8GB)
- 7-segment display x2 - 10mm red - common cathode (link)
- Temperature sensor DS18B20 - digital 1-wire THT (link)
- Connecting cables male-female
- Some resistors (I'm using 100Ω)
- Resistor 4700Ω
- Breadboard

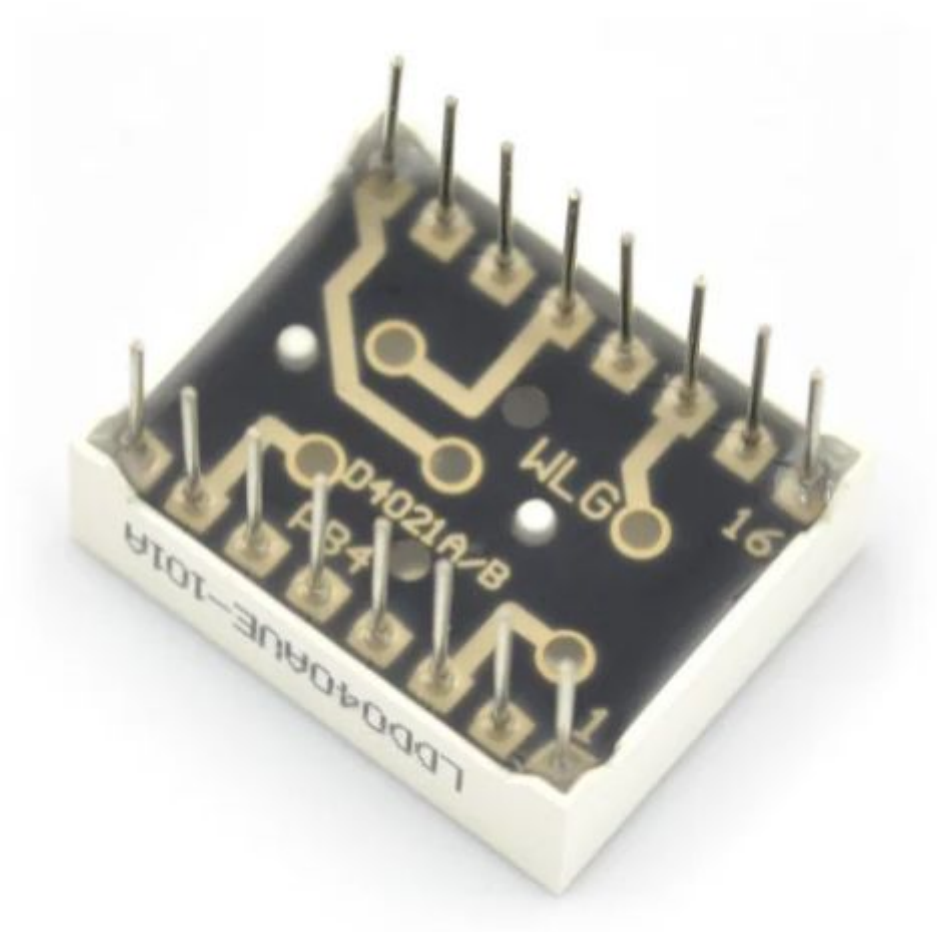
To use the program safely, use exactly the same hardware.

Display connection:

To understand the structure of the display, analyze the graphics from the official documentation:







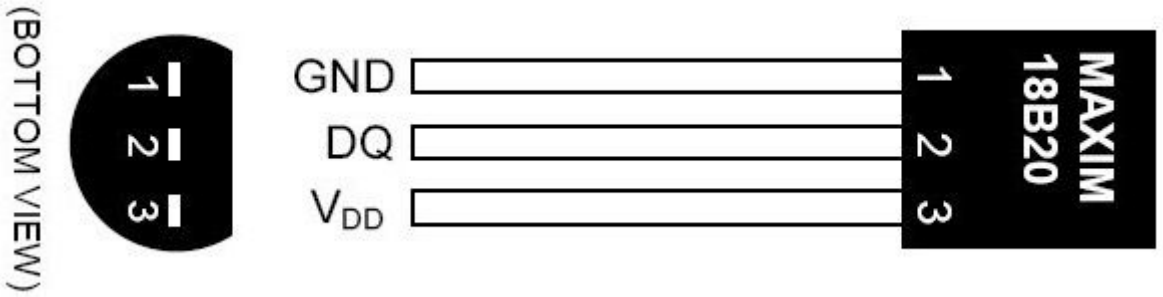
Source of graphics, there is also a link to documentation on the website: https://botland.store/segment-displays-matrices/6281-7-segment-display-x2-10mm-red-common-cathode.html

In my case, I made such a connection. If you want to do something else, you need to modify the **LED_id** array in the app.js file.

ID of the display pin	GPIO
1	17
2	27
3	18
4 (Cathode)	GROUND
5 (Cathode)	GROUND
6	6
7	13
8	5
9	19
10	12
11	26
12	16
13	25
14	23
15	24
16	22

Use resistors (100Ω) between the display and connecting cables.

Temperature sensor connection:



Graphics source:
https://botland.store/digital-temperature-sensors/165-temperature-sensor-ds18b20-digital-1-wire-tht.html

ID of temperature sensor pin	GPIO
1 (GND)	GROUND
2 (DQ)	4
3 (VDD)	3V3 POWER

Use a 4700 Ω resistor between DQ and VDD.

You must use GPIO 4 for connection. This is the dedicated pin for 1-Wire GPIO sensing.