



ROCHACARDOSO
Projects

Temperature Sensor

User's Manual

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1 Overview

The Temperature Sensor is a project developed using Arduino UNO. It has a temperature sensor TMP36, a LCD display, a Piezo speaker, a LED and a potentiometer connected. The sensor measures the temperature and the board displays the result on the LCD display. In case the temperature gets higher or equal than 25 °C, the Piezo speaker beeps and the red LED lights up. The board gets 10 results of temperature, every 20 milliseconds, and then it calculates the mean square for a final result.

In Figure 1.1 you can see the Arduino UNO and in Figure 1.2 you will see the connections in the breadboard and the final result.

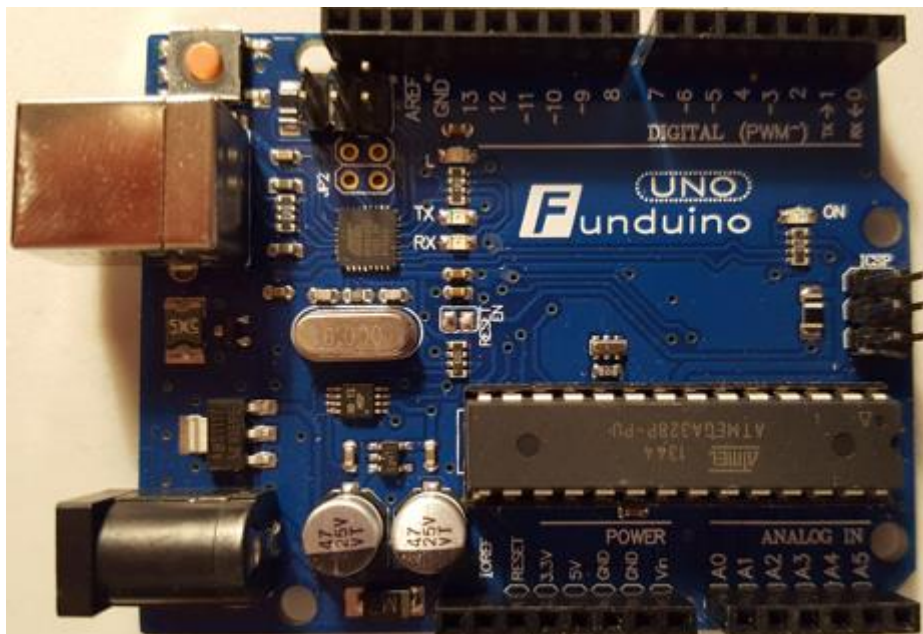


Figure 1.1 – Arduino UNO used in the project.

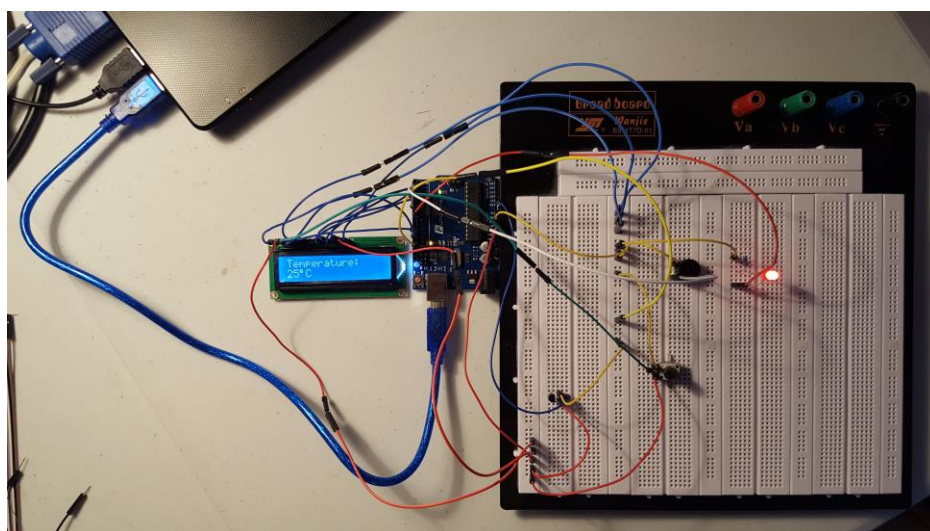


Figure 1.2 - Final result.

2 PIN Assignment and List of Material

The pin assignment was made as it follows:

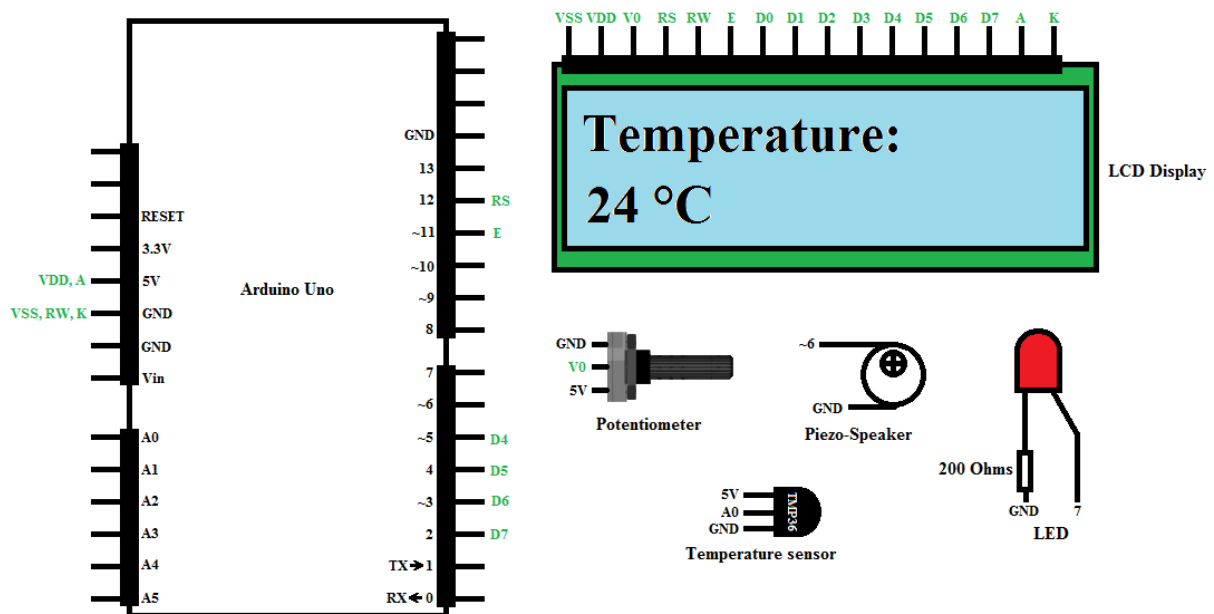


Figure 2.1 – PIN Assignment overview.

2.1 Components

The used components were:

- 1 x 200 Ω
- 1 x Red LED
- 1 x Piezo-Speaker
- 1 x LCD Display (16 characters, 2 lines)
- 1 x Potentiometer
- 1 x Temperature Sensor (TMP36)
- 1 x Arduino UNO

3 More Information

For more information you can visit our website <http://www.rochacardoso.de> or contact us:

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