

MCSD Project- Brewing Temperature Assistant

Name + Matriculation No. 1 + Module: Jan TOMSEJ, Fever Click

Name + Matriculation No. 2 + Module: Marek ANTONÍN, Oled C Click

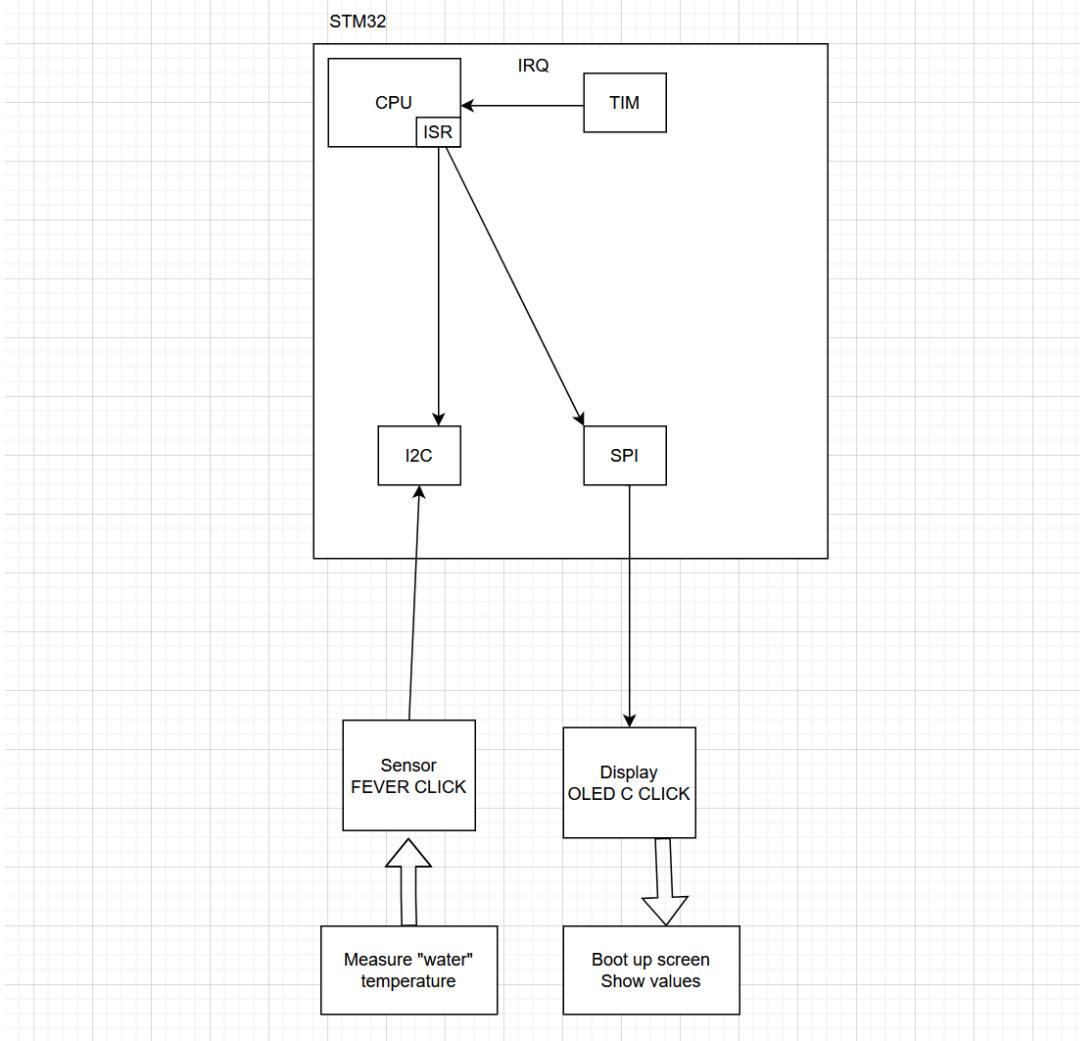
Used Modules:

Module 1: Fever Click - Measure temperature

Module 2: Oled C Click – Display desired information

Function Description and Block Diagram of the System

After the initialization (every second, driven by the timer interrupt), this microcontroller will measure the temperature of water and display for brewing which type of tea or coffee the current temperature is suitable for (green tea 70-80°C, black tea 80-90°C, coffee 90-100°C). The FEVER CLICK sensor module uses I²C, the OLED C CLICK uses I²C



This happens after switching on:

When I turn on the device, the modules are initialized. The output module shows „Please measure the water temperature“.

Scenario 1:

The temperature is between 70-80°C the display will show green tick mark next to a corresponding type (green tea) and a red crossmark next to the other types.

Scenario 2:

The temperature is between 80-90°C the display will show green tick mark next to a corresponding type (black tea) and a red crossmark next to the other types.

Scenario 3:

The temperature is between 90-100°C the display will show green tick mark next to a corresponding type (coffee) and a red crossmark next to the other types.

Scenario 3:

The temperature is suitable for two of the supported brews the display will show green tick mark next to both of the corresponding types and a red crossmark next to the last one.

Scenario 5:

The temperature isn't suitable for any of the supported brews, display red crossmark next to all of the types.