

# IRS2 Project – Skočko(Mastermind)

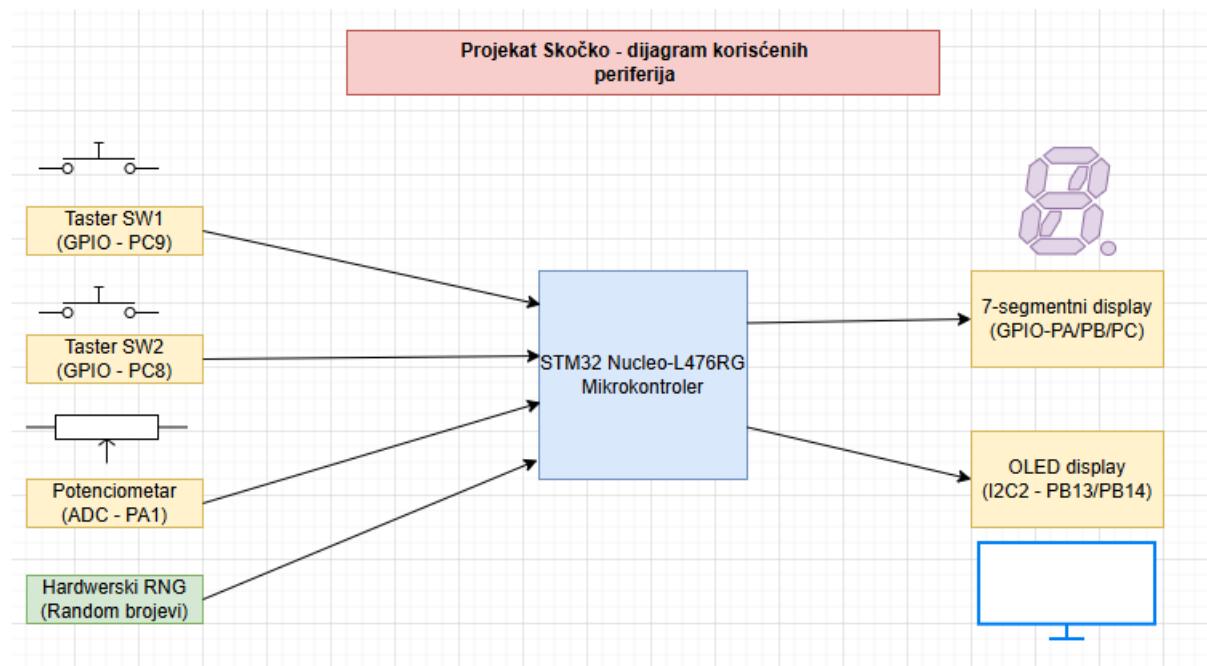
The project is a simulation of the **Skočko game**. The user's goal is to guess a hidden random combination of 4 digits, where each digit can be a number from 1 to 6. The user has **6 attempts** to guess the combination.

After selecting a combination, the OLED display shows the result of the current iteration in the form of:

- The number of **exact matches** and their positions, marked with the symbol “X”
- The number of **partial matches** (correct number but wrong position) and the positions of such digits, marked with the symbol “O”
- The number of **incorrect guesses**, marked with the symbol “\_”

The user selects the current digit using a potentiometer, and the digit is displayed on the **7-segment display** as well as on the **OLED screen**. The user confirms the current digit with the **SW1 button** and confirms the final 4-digit combination with the **SW2 button**.

The hidden combination is generated using a **hardware RNG**.



## Peripherals used in this project:

- **ADC** – used to read the potentiometer value for digit selection
- **GPIO** – reading button presses, selecting the 7-segment display and its segments

- **RNG** – generating the random number combination
- **I2C** – communication with the OLED display
- **SysTick** – timing management