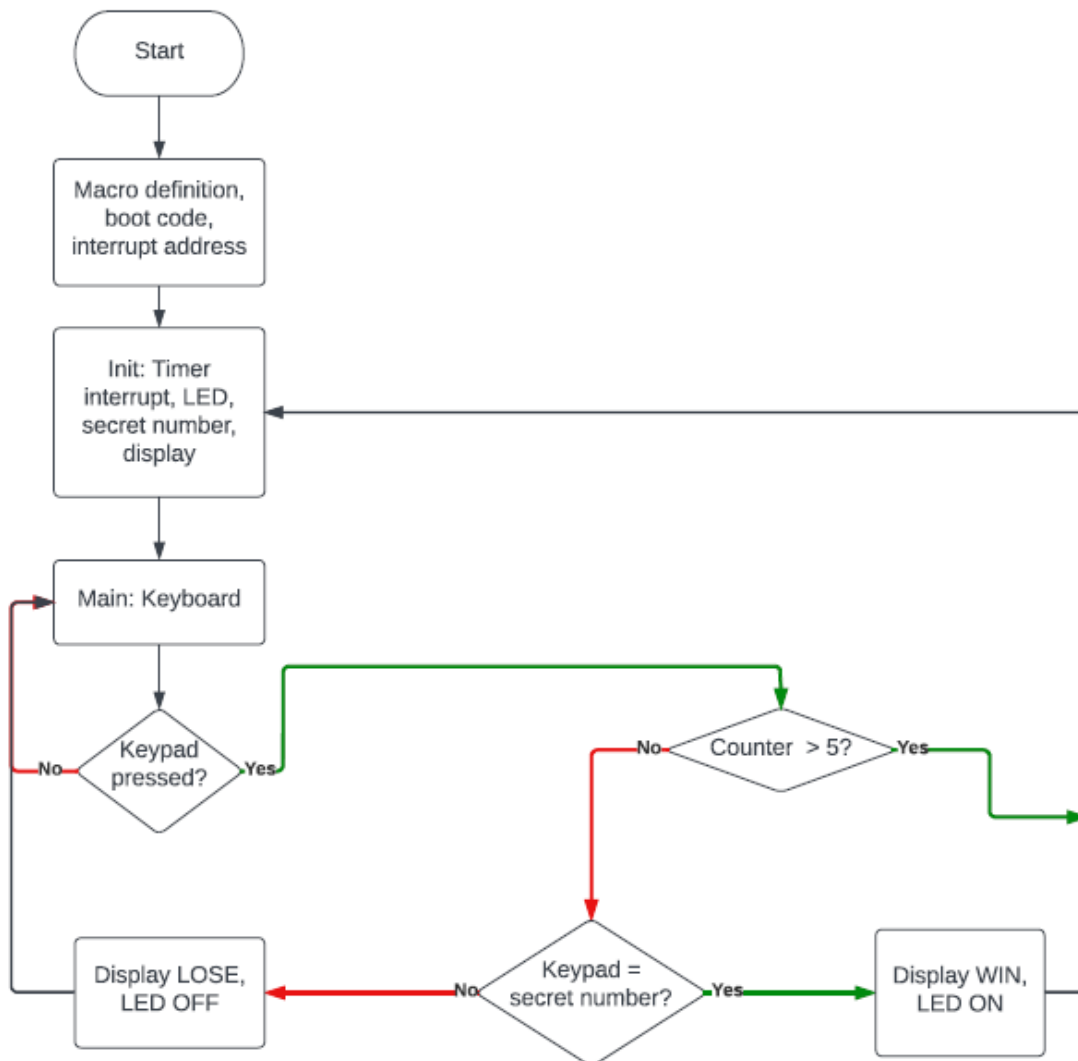


Sensors and Microsystem Electronics

Micro-controller project report on Guessing game

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Functionalities

This report is about the implementation of a guessing game where the user tries to guess the correct secret number from 0 – 9. The user has less than 5 attempts to guess the correct number. After every wrong guesses, the screen displays “lose” and for a right guess, the screen displays “win” and also turns on the bottom LED.

Screen

The screen displays the user input, a counter that increases after every trial and shows if it is a right guess or not by displaying “win” and “lose” respectively.

Timer

The implementation makes use of an 8 bit timer (timer interrupt 0) which is used by the screen at a frequency of 1kHz.

Main loop

The keyboard was implemented in the main loop. The implementation checks if any keypad was pressed or not. If a keypad was pressed, the implementation checks if the key pressed is the same as the secret key and displays to the user if he wins or loses as long as the number of trials is lesser than 5.