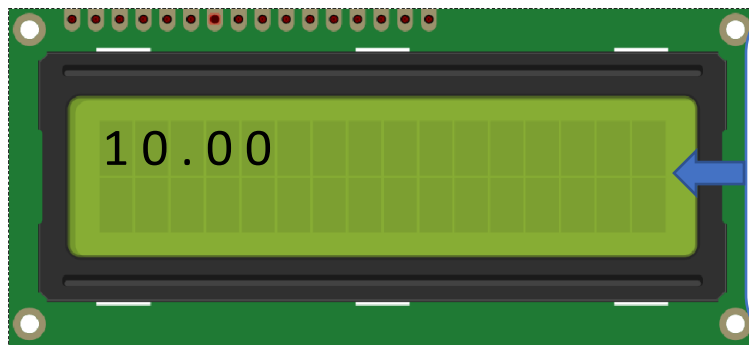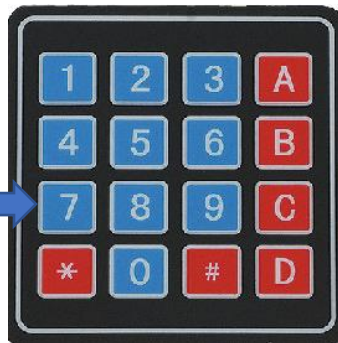# Countdown Timer

In your LCD-Keypad device, your first function will be a keypad settable countdown timer. The LCD will display the number characters entered via the keypad – only the number characters will be accepted by your microcontroller and don't accept more than 4 digits of seconds. The display will concatenate ".00" to the entered number, the countdown will start by pressing the PORTF left switch. The countdown will be aborted by pressing the PORTF right switch and a new value will be accepted by the keypad. After the end of the countdown, the LCD will print countdown end message and the PORTF RED LED will blink for 5 seconds.
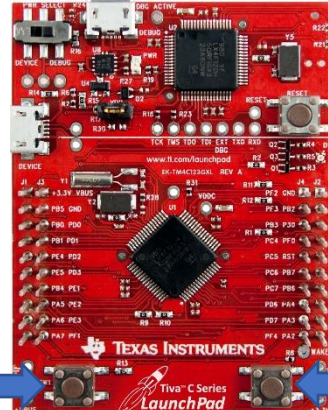

Display the countdown value, concatenated with ".00" until countdown starts. The countdown is to be displayed in resolution of 10 milliseconds e.g. "10.00" will countdown to "9.99".

Input countdown value, only accepting the number characters with maximum 4 digits number

RED LED Blinks for 5 seconds after countdown ends

Start countdown

Abort countdown and accept new value

Assessment Criteria:

1- Multi-file project is a must.
2- Using Systick Timer is a must.
3- Minimum timing resolution is 0.01 second.
4- Adding more features will be accounted as bonus.

In the Project Report:

1- Tabulate the functions you have created for the project with the developer name and the files names where the function is defined and prototyped.
2- The block diagram of your project indicating which ports and pins assigned for the connected pins.
3- Bonus features description if done.