Implementing a Stopwatch

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Task1: Simple Stopwatch

Implement a Stopwatch using Timer0 that measures the time down to 1ms resolution.

- Connect a switch to External Interrupt INT1 (PD3)

- Pushing the switch should start the Stopwatch.

- The same switch once pushed again should show the elapsed time on LCD.

- Another button push resets the Stopwatch and makes it ready for another measurement.

- Make sure you debounce the button pushes.

Task2: Improved Stopwatch

Implement a Stopwatch using Timer1 to measure the time down to 1ms resolution. Use Timer0 to introduce Polling Delay for Switch Debouncing.

- Connect a switch to External Interrupt INT1 (PD3)

- Pushing the switch should start the Stopwatch.

- The same switch once pushed again should show the elapsed time on LCD.

- Another button push resets the Stopwatch and makes it ready for another measurement.

- Make sure you debounce the button pushes.