

ECE3411 – Fall 2016

Lab 4c.

Implementing a Stopwatch

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Task 1: Accurate Stopwatch

Implement the Stopwatch using Timer1 and Capture Interrupt to measure the time accurately 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.