

## LAB #7: Frequency Measurement

Lab writeup is due to your TA at the beginning of your next scheduled lab. Don't put this off to the last minute! There is pre-lab work to complete before the start of the next lab. **NO LATE LAB REPORTS WILL BE ACCEPTED.**

### 1 Objectives

- To gain experience using input capture and output compare to measure an input signal's frequency.

### 2 Reading

- Read Chapter 6 on timing generation and measurements.

### 3 Prelab

1. Write C code for a program that measures the frequency of a square wave. After each frequency measurement, it should transmit the measurement out to the LCD display. You may use the LCD driver code from lab 2 for this purpose. You should be able to measure between 20 Hz and 20 kHz with the resolution of 1 Hz. The LCD display should be updated approximately every second.

### 4 Lab Tasks

1. Use a frequency generator to test your frequency measurement code. Check-off your working frequency measurement device with your TA.

### 5 Writeup

1. A printout of your C code.