

ELE 205 Lab #3

This lab is designed to integrate the LCD display with a rate detector that can determine pulse rates in the range of 30 to 200 beats per minute.

1. Develop a software algorithm that detects the fundamental rate of an input signal. There are a number of ways to calculate this. Use it to detect the rate of a pulse from the signal generator in lab. Measure the rate of the generator first using the oscilloscope on your bench so you know the truth.
2. Detect the rate from the signal generator over the range of 30 to 200 beats per minute and display this value on the LCD display. Have the display update as you change the rate continuously from the signal generator.