Assignment #3 – More Binary Clock
Due: Friday, 05/03/13, 11:59pm

Part 1

You will take what you have working from Lab #3 and Assignment #2 and adapt it to make a better binary clock. Your clock will use polling by checking the timer to calculate the seconds and update the minutes and hours.

As you learned in Lab #3, the USART is used to receive information. Upon receiving a ‘s’ character from the USART, your clock will begin printing the clock in decimal to the terminal every second.

If you did not get your myitoa() working in Assignment #2, then this is the time to get that working perfectly. You must use your own myitoa() for converting your numbers to strings for the USART.

Remember, the Wunderboard has to be programmed in C, not C++!!!

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Part 2

Using the skeleton code provided here, you will be reading the data from the accelerometer on your Wunderboard.

The read_ADC() function provided for you in adc.h takes data from the analog to digital converter (ADC), and makes it available to your code -- make sure to read the comments in the code to know what channel to use. Take the output for the X axis of the accelerometer, and display it on your LED array in binary. Pick a suitable color and row to do this.

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In order to submit the files, you will be creating a bzipped tar ball. In order to do this, you will use the following command, adding all the source files to the end of the command:

tar -cjvf cs162_hwx_username.tar.bz2 file1 file2 file3...

This tar ball (replacing username with your ENGR username), and only this tar ball, will be submitted via TEACH.