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**Assignment #8**  
**Serial Communications**

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The object of this assignment is to utilize the serial interfaces found in a microcontroller to provide communication between devices.

**Assignment**

1. RS-232 Communication. Setup the hardware and you PC to provide serial communication from the PIC24 to your laptop screen. Write a program that will generate and print to the screen the list of number 0 to 100 in 0.1 increments. Demo your program and turn in your code.
2. I2C Communication. Setup the hardware to interface to the DS1631 Digital Thermometer. Program the PIC24 to configure the chip and repeatedly read the temperature values. Use a logic analyzer to capture and decode one of the I2C data exchanges. The data sheet for the DS1631 can be found on Sakai. Turn in your code and a printout of the logic analyzer output
3. Use the hardware built for problems 1 and 2 to build a digital thermometer that reads temperature data from the DS1631 and output the current temperature to your screen. Demo your program and turn in you code.