

LAB Assignment #3 for ECE 443

Assigned: Tue., Sept. 25, 2012

Due: Tue., Oct. 2, 2012

Description: Create a command/response interface with the serial port

You are required to finish implementing a state machine that will read characters from the serial port and either discard the character as invalid or will cause the state machine to output a string. The only valid character is the 'h' character. If the user presses this character, the state machine will remove the character from the input FIFO and then display the string "HELLO".

You are to implement this functionality in the SerialInterface.vhd file provided. The VHDL code for the serial port is provided. You will also need to create your own ucf file that specifies pin connections for Clk, RESET, tx and rx.

We will discuss the serial port design in class this week and next. This code will serve as the command interface in the project, so study it carefully.

Laboratory Report Requirements:

Grading:

The grading from this lab will be based entirely on your in-class demo. Bonus points will be given for any implementation feature that goes above and beyond the requirements.