Oregon TECH

Computer Systems Engineering Technology
CST 417 – Embedded Networking

Lab 7 – Client/Server System   Name_____

Fall 2014   Due Date: 12/5/2014

Instructor: Troy Scevers

Possible Points: 20

Instructions

In this lab we will do our final modifications to the UDP client/server. You will team up
with everyone for this lab. Together you will come up with a custom protocol to run
over our UDP client and server. This protocol must be more comprehensive than just
sending a number. It could be something like toggle led # with a CRC or something. The
messages should be sent from the client to another persons board server on button
release (could be multiple buttons). When the server receives this message it should
toggle the appropriate LED's on its board (IE if button 1 was pressed toggle LED 1).
Document your Protocol and turn it in along with your code. You will still set ports and
addresses through your web interface. So as an example Cody will press button 1 and
release it on his board, on the release it will send a UDP packet to Kelvin's board.
Kelvin's server will interpret this packet and toggle LED 1 on his board. Kelvin can
then hit Button 2 on his board, which will send a packet to Cody's board. This will
cause Cody's board to toggle LED 2. Any persons board should be able to connect to any
other persons board.