**Lab 07: Pre-Lab**

Instructions: Print off this pre-lab form, complete and turn it in by the start of your lab section. If there is a demo associated with this lab, you can turn it when you do your demo.

**Part 1: DS4 Equalizer Introduction**

Start by reading through the entire lab document prior to coming to lab so you know are able to have a better idea of what we are doing this week. In addition to that, feel free to start on the lab or bring any questions that you may have so the TAs can go over them. Next, answer the question below based on having read the lab document.

**Question 1:** For the purposes of this lab, what are “roll” and “pitch” defined as?

**Roll is left and right and pitch is forward and backward on the controller.**

**Part 2: Introduction to Pointers**

This lab is the first lab in which you will use pointers. Pointers are one of the key concepts that you should understand and take away from this course as you will see them in some way, shape, or form in other programming courses.

**Question 2:** Come up with either a written or visual representation of pointers in the code. This should include the key parts of a pointer as covered in section 8.2 of ZyBooks.

**The pointers in this code so far are the ones in read\_input which refer to data gotten from the controller.**

**Question 3:** Take a look at the source code that you are given for this lab, specifically the read\_input function. Write what you think would be the appropriate function call for read\_input in your main function.

**read\_input(&t, &x, &y, &z, &b\_up, &b\_right, &b\_down, &b\_left, &j\_lx, &j\_ly, &j\_rx, &j\_ry);**

**Question 4:** Now that you have an idea of what might be needed when you call and use read\_input, actually write what you think the C code for read\_input would be.

**while (button\_x != 0) {**

**scanf(buttons\_x);**

**}**

**If (button\_x == 1) {**

**Return true;**

**}**

**Return false;**

**TA Check Off:**

**Pre-lab and Attendance TA Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Question 1:** | **/2** |
| **Question 2:** | **/4** |
| **Question 3:** | **/4** |
| **Question 4:** | **/5** |
| **Total:** | **/15** |