**SYSC 3203: Fall 2019**

**Lab 4B Report**

Submit this page to the lab instructor.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**1: Monostable Design**

1.1: Sketch the circuit diagram for your monostable circuit. Include the values of all components on the diagram.

1.2: Sketch a schematic of the circuit, showing the chip layout for the 555 timer and labeling the terminals. Please label the testing points for your circuit.

1.3: The 555 timer could probably work using the output from the comparator from Lab 4A, but this is not ideal. Why is it a good idea to include a trigger circuit with the 555 timer?

**2: Comparator and Monostable Integration and Testing**

2.1: Show your TA that the whole circuit is behaving properly and that you can adjust the threshold.

Verified: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date/Time:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2: Is your monostable retriggerable or not? How will this impact the current project?

2.3: What will happen, for the current application, if the monostable pulse width is set too high or too low?