

Lab 3 grading sheet

Circle professor

1) Name Last\_\_\_\_\_ First\_\_\_\_\_ EID\_\_\_\_\_ VJR, MT, JV, RY

2) Name Last\_\_\_\_\_ First\_\_\_\_\_ EID\_\_\_\_\_ VJR, MT, JV, RY

*Use same spelling as listed on Canvas*

1. Deliverables 20%:

0) This sheet

*Combine the following components into one pdf file and upload it to Canvas before your checkout time. Have this file open on the computer during demonstration.*

- 1) Circuit diagram, using PCBArtist or hand drawn
- 2) Screenshot like Figure 3.9 showing your debugging in the simulator
- 3) Switch measurements (Table 3.1)
- 4) LED measurements (Table 3.2)
- 5) Assembly source code of your final program

2. Performance 35%:

Does it handle correctly all situations as specified?

3. Adhere to coding standard 5%

- Good Names have meaning
- Variables have units in comments
- Consistent indentation
- Consistent style

4. Demonstration 40%:

You will show the TA your program operation on the actual TM4C123 board. The TA may look at your data and expect you to understand how the data was collected and how the switch and LEDs work. Also be prepared to explain how your software works and to discuss other ways the problem could have been solved. Why the 7406 was used to interface the LED? I.e., why did we not connect the LED directly to the TM4C123. Why do you think you need the capacitor for 7406 chip? What would the flashing LED “look” like if the delay were 1ms? How would you modify the software to change the rate at which LED flickers? What operating point (voltage, current) exists when the LED is on? Sketch the approximate current versus voltage curve of the LED. Explain how you use the resistor value to select the operating point. What is the difference between a positive logic and negative logic interface for the switch or the LED? We may test to see if you can measure voltage, current and/or resistance with your meter (so bring your meter to the demonstration).

Total:

1)

2)

1)

2)