

Lab 5 grading sheet

Students name 1) Last _____ First _____ EID _____
Use same spelling as listed on Blackboard

Students name 2) Last _____ First _____ EID _____

Circle instructor: Valvano TTh5
Telang MWF2
Yerraballi TTh3:30 or MW3
Gerstlauer TTh2

1. Deliverables 20%:

0) This sheet

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Combine the following components in this order into one doc docx or pdf file and upload it to Blackboard before your checkout time. Have this file open on the computer during demonstration.

- 1) A sequence of four to six screen shots showing the system running in simulation mode when cars are present on both roads.
- 2) Circuit diagram (with your name and date). Use PCB Artist draw it so it looks like Fig. 3.1
- 3) Drawing of the finite state machine
- 4) Assembly listing of your final program

2. Performance 40%:

Does it handle correctly all situations as specified?
How pretty is the software?

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1)

2)

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3. Demonstration 40%:

During checkout, you will be asked to show both the simulated and actual 9S12 systems to the TA. The TAs will expect you to know how the **Timer_Wait** function works, and know how to add more input signals and/or output signals. An interesting question that may be asked during checkout is how you could experimentally prove your system works. In other words, what data should be collected and how would you collect it? If there were an accident, could you theoretically prove to the judge and jury that your software implements the FSM? What type of FSM do you have? What other types are there? How many states does it have? In general, how many next-state arrows are there? Explain how the linked list is used to implement the FSM. Explain the mathematical equation used to calculate the address of the next state, depending on the current state and the input. Be prepared to write software that delays 1 second without using the timer (you can use a calculator and manual). How do you prove the delay will be 1 second? Explain the difference between the **blt** and **blo** instructions. List some general qualities that would characterize a good FSM

1)

2)

Total:

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