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# Embedded Systems International

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## Lab Demo Evaluation

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Three types of demonstrations will be done with a TA in lab.

Demonstrations	Points Possible
Functional demo of a lab milestone	15
Debug demo using debugging tools to explain something about the internal workings of your system	15
Q&A demo showing ability to formulate and respond to questions	10
Total	40

### Functional Goals for Parts of Lab 1

1. Build, upload and run "Hello, world" program
2. Debug program execution and explain `lcd_puts()` function
3. Display rotating banner that scrolls message right to left and scrolls 20 spaces in between repetitions to clear the screen

### Functional Milestone to Demonstrate in Lab 1

The rotating banner (Part 3) should be demonstrated during the lab period, implementing the features specified in the lab manual.

### Rubrics for Demonstrations

**Functional demo of a lab milestone (15 points possible):** rating on a scale of 0 to 5 (then multiply by 3), where 5 is fully functional with no errors, 4 is mostly functional (minor mistakes), 3 is missing some functionality, 2 is missing major functionality or has major errors, 1 is mostly not working, 0 is not working. A TA has the discretion to add points above multiples of 3, e.g., 10 instead of 9.

**Debug demo using debugging tools to explain something about the internal workings of your system (15 points possible):** rating on a scale of 0 to 5 (then multiply by 3), where 5 includes: using basic debugging functionality and views in CCS, giving a specific example of program execution and/or a problem in the code, providing a specific example of testing a change, and explaining system operation using specific information in one or more views. Ratings of 4 and lower are missing some elements, where 1 is using only one view, and 0 is not using the debugging environment. A TA has the discretion to add points above multiples of 3.

**Q&A demo showing ability to formulate and respond to questions (10 points possible):**

5 points for responding to a question posed by the TA, on a scale of 0 to 5, where 5 includes: showing strong conceptual and/or practical understanding, using valid interpretations and assumptions, using specific and relevant information to support the answer, and communicating clearly.

5 points for formulating a useful question, such as a priority question during lab planning or a question created while doing the lab, on a scale of 0 to 5, where 5 includes: generating relevant and appropriately focused questions that have some purpose, such as to clarify a topic, understand a relationship, make connections, explore what is and is not known, make judgments, express curiosity, challenge ways of thinking, test new ideas, etc.