CprE 281 EC Lab electrical and computer engineering iowa state university

EC Lab Answer Sheet

Lab Section:

- Lab:
 - 1. Complete any or all of the three tasks.
 - 2. Take screenshots and include them in the document below (note: to receive points your NetID has to be visible in the screenshot, say in a command window that is in the background).
 - 3. Complete this document and upload it to Canvas as a PDF.

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Task 1: Modify PONG's Game Over Message. (35pt)

Modify the assembly code for the game to display a different text at the end of the game (something other than "End!" should be visible on the 7-segment displays). Recompile the game and play it again. Attach new pictures to show what you did. Also, attach the modified source code and clearly indicate your changes. Explain your solution.

- <<< picture >>>
- << code >>
- <<explanation>>

Task 2: Modify PONG's input handling. (35 pt)

Modify the assembly code for the game such that it can be played with switch 3 instead of the default switch. Recompile the game and play it again. Attach new pictures to show what you did. Also, attach the modified source code and clearly indicate your changes. Explain.

- < << picture >>>
- << code >>
- <<explanation>>

Task 3: Write your own game. (30 pt)

Use the code for PONG as an inspiration and write your own game. It should use one or more of the switches and display the game on the 7-segment displays. Describe your game and what you did in several paragraphs. Show the assembly code for your game. Compile the CPU code and run the game. Attach pictures of you playing the game.

- <<< picture >>>
- << code >>
- <<explanation>>