

HW10

Start Assignment

- Due Monday by 5pm
- Points 100
- Submitting a file upload
- File Types docx, pdf, asm, and lst
- Available Apr 18 at 8am - May 1 at 5pm

HW : Theme: Strings and Interrupts

(All main questions carry equal weight. Credit awarded to only those answers for which work has been shown.)

1. [Interrupts] What are hardware and software interrupts? Give examples of each. What are maskable and non-maskable interrupts? Provide examples of each.
2. [Interrupts] Explain the process of interrupt vectoring.
3. [Strings] Write a program that computes the number of characters in any string. Test the robustness of your program using different strings including those of size 0. Test the program also for the string "Look forward to enjoying summer."
4. [Structures] Using the structure example discussed in the book and slides, write a program that displays the z-coordinates of several points given as an array of coordinates in the data segment. Unlike the example in the book you should use 3-dimensional points. Test your program with various (x, y, z) Use base-indexed addressing to implement the program. **This question is a group work so you should work with another person in the class to do this assignment. Please mention the name of the person you worked with. Both need to submit the assignment.**