

HOMEWORK No. 2 - DUE **beginning of class** September 10

In this course you will learn about microprocessors and microcontrollers and how to design and build “Embedded Systems” to control and operate electronic devices. You will use the Arduino Mega R3 “Single Board Computers” (SBC):

For this Homework assignment, first, go to the Arduino web site examine the features of each of the different Arduino boards. Features are things like type of microprocessor or microcontroller used on the board, timers, analog to digital converters, amount of flash memory, kinds of input/output devices, software available, prices etc.

Then, Perform a WEB search for “Single Board Computers”, “Embedded Controllers”, “Embedded Computers”, and other search terms you might think of to examine other brands of SBCs and their features.

1. Print out 1 representative page from each of the most interesting (to you) 3 non-Arduino SBCs including URLs.
 2. Write a two page report, **in your own words**, describing what you learned and what features you think might be most important for a SBC that you might use in a design project. Include references (URLs) to any really good web pages describing or comparing SBCs.
 3. Do NOT hand in more than 6 pages total.
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Be sure that you reference any quotes or figures you use from your search. It is OK to include material from other sources in your written report as long as you reference the source. ***It is not OK to just cut and paste*** from other sources and pretend you wrote the material. This is true for anything you prepare for any class, and if you do not reference the source it is considered plagiarism which is academic dishonesty.

For Example:

The excerpt below is taken from the current University of Nevada, Reno web page defining academic standards (UNR1).

"Academic dishonesty is against university as well as the system community standards. Academic dishonesty is defined as: cheating, plagiarism or otherwise obtaining grades under false pretenses. ...

Plagiarism is defined as submitting the language, ideas, thoughts or work of another as one's own; or assisting in the act of plagiarism by allowing one's work to be used in this fashion. ...

Cheating is defined as (1) obtaining or providing unauthorized information during an examination through verbal, visual or unauthorized use of books, notes, text and other materials; (2) obtaining or providing information concerning all or part of an examination prior to that examination; (3) taking an examination for another student, or arranging for another person to take an exam in one's place; (4) altering or changing test answers after submittal for grading, grades after grades have been awarded, or other academic records once these are official.."

Note that the example above references the source and makes it clear that I am quoting from it rather than writing my own words like I am in this sentence.

In your report you should identify each reference and at the end of your report you should include a list of references which you used to gather information.

LIST OF REFERENCES:

UNR1. University of Nevada, Reno academic standards, http://www.cis.unr.edu/ecatalog/Default.aspx?article_list_id=25995, (copied 1/20/2012)