

Reflecting on your Index Card Platform

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Mechanical Engineering 2001: Introduction to Engineering

Purpose

Good designers always evaluate what they do and document their successes and failures. Keeping a running log of design effort enables designers or their successors to follow the thought process. Good designers also keep meticulous records of what the competition is doing and, within legal limits, steal and improve upon their ideas. The purpose of this assignment is for you to reflect on your card platform, to document its design, and to record solutions you saw from other groups. Note that this reflection component of the platform project is an example of why what you do in this course is different from similar projects you may have done in middle or high school. To be successful in this assignment you must pay careful attention not only to your own design, but to other platform solutions. We suggest that during class and section, circulate around the room and record what you see in your sketchbook using annotated drawings.

Description and Deliverables

The assignment is done individually. The deliverable is a one-page (no more, no less) writeup which contains the following:

1. Draw a horizontal line across the paper, about 2/3 of the way down. All text goes above the line, drawings go below the line.
2. On the bottom left, sketch the platform you designed by yourself and made the manufacturing instructions for. Use any sketch method that makes the design clear. On the bottom right sketch the platform you wish you had designed, based upon what you observed in lecture and section. Title each sketch and annotate where appropriate.
3. Above the line, write a summary of the design process you used to create the tower you brought to section, and the process your section group went through in selecting a design to turn over to the manufacturing team. In the design your section team selected, what worked well and what did not? If the design ended up not meeting one of the constraints, why? Perhaps compare your design to the best one in the section. Be detailed, specific and scientific in your comparisons. Comment on the process of working in a group. Would your final platform have used fewer cards if you had been all on your own for the whole project?

Use a word processor. To fit all the text into the top 2/3 of the paper, you may use down to 10 point font and one inch left and right margins, no smaller. Center the title at the top. Add your name and the date in the top right corner.

Make sure what you turn in does not contain errors in grammar or punctuation. Because most word processors have spell checks, there should be no spelling errors in this or any other assignment you turn in. Although the content of this paper deals with engineering, it is important that the writing be clear and correct. You will find that you will often have to work with non-technical people (i.e. marketing or management) who may be turned off by a poorly presented document, even if it is technically excellent.

Grading

Assignment grading will be based on both technical content and writing style and mechanics. Check = expected grade; check-minus = drawings not clear, spelling error(s); check-plus for clear, succinct descriptions or drawings, and exceptional writing; 0 = did not do.

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page 2

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