

**ENGR 102**  
**Fall 2002**  
**University of Arizona**  
**Section 10H**  
**Due: 12-11-02 in Electronic Word or PDF Format Only**

**Learning Journal Exercise #7 Extra Credit:**

This learning journal can be worth up to 5 extra points added on to your final percentage earned in the class during the semester. So if you finished the semester with 70 points earned (weighted by the syllabus weightings), you could raise your grade to a B by completing the entire assignment to a high degree.

Justification: The instructor was able to spend quite a bit of effort learning about the second project and how to make it better so that a very complete set of guidelines could be handed out to the class. In addition, the instructor was also able to develop course materials to teach rubberband and tractor forces in a series of short lectures.

What: Feedback on how to improve the other two group projects would enable the instructor to borrow from your ideas so that better projects could be offered in this same high quality way as the tractor project next time the class is taught.

For complete credit, address the following concerns for **either** the windmill **or** catapult project:

1) redesign the constraints on the project and clearly lay out a 1 page set of guidelines for the students like the one furnished for the tractor. In a secondary page, justify with a brief statement why each criteria was added so that the instructor can agree or disagree.

(2 points)

2) redesign or design a non-trivial homework exercise to support the project materials that you think would have helped you on the project

(1 point)

3) and provide a clear solution to the homework exercise

(1 point)

4) rewrite the guidelines handed out for the second report so that they could be used for guidelines on a first report next time the class is taught. Keep in mind that students will have never written a college report before and clear guidelines would be nice.

(1 point)

An additional 1 point of extra-extra credit can be earned by providing concrete feedback on a specific way to improve the course in a non-trivial way. This improvement must also lie within the co-lecture domain with clear justification supported by **two** articles from a journal (see library lecture on how to use references online) on why the improvement would lead to a better learning process or environment. Cite the references as you would in a formal English paper.

You may also just offer suggestions or fulfill only certain sections to receive some additional credit. Note that this is an individual project with you giving your advice and improvements for the co-lecture.