

Problem Set 14: Applications of Mechanics to Everyday Life: The 2.007 Design Contest

Design Engineering Challenge: “The Big Dig” 2.007 Contest Assembling **Module Concepts** into a Final Machine to Realize Your Chosen Contest Wining **Strategy!**

Now that you have been investigating different strategies and ideas to develop various scoring modules, consider the materials available in the 2.007 kit, your own experience at building things. Based on all these inputs, then select from all the concepts you have studied and propose a final machine concept made from one or more of your scoring module concepts:

1. Sketch the overall machine and clearly show each module
2. State the functions of each module and the overall operating principle of the complete machine
3. Summarize the physics of each module
4. List the references you used in developing your ideas
5. Summarize the major risks you might encounter as you build, test, and operate your modules and machine
6. Describe a contingency plan to deal with each of the risks (from dump that particular module after N days of tweaking to falling back to a simpler easy to implement concept)