

**Mechatronics 333**  
**Project Idea**  
**Instructions and Grading Criteria**

Each student email me, with copy to the TA, one final project idea.  
Please use the subject line: ME 333 project idea

In no more than one page (single-spaced), with up to two figures (the figures can be hand-drawn) describe an idea for a mechatronics project. Your project idea should involve some sensing, some actuation (motion), and some real-time control and/or computation. It can be something practical or something fun or whimsical. Be creative!

It is acceptable to do something similar to a previous project, as long as you do it better or somewhat differently. Your project idea should give a rough idea of how the project works and what sensing and actuation is involved. You are not committed to doing this project, but it should be feasible, i.e., of reasonable scope and not requiring inordinately expensive hardware. For an idea of the scope of project you can do, see past ME 433 projects. You can also see past ME 333 projects and past student project ideas at the webpages for ME 333 in previous years.

Note: Searching the web is an excellent starting point to come up with ideas. But be careful about plagiarism! Do not take figures, text, or ideas from the web without proper credit. Your project idea can take its inspiration from a website, or from someone else's idea, but it is then very important that you give appropriate credit. If you are uncertain about whether to credit someone else, please come talk to me.

**Grading will be based on four major factors:**

1. Appeal and/or Functionality:  
Aesthetic considerations – fun to play with, interesting to interact with, etc...  
Does it do something useful (without being exorbitantly expensive!)
2. Plausibility  
You do not have to do come up with part numbers, but the sensors and actuators you use must be realistic. Mechanical design must be plausible and robust
3. Robust integration of sensing, actuation, mechanical design, and programming
4. Creativity