MECHANICAL PUZZLES / MECHANISMS
ENGR 100A - ME PROJECT

The ME PROJECT will involve making a mechanical mechanism. Students will assemble a laser-cut MECHANICAL PUZZLE (or mechanism). These will be made from a purchased kit from Amazon or other vendor. This project will illustrate the complexities of mechanical design without having to do our own fabrication. Often mechanical fabrication requires a high level of skill (e.g., machining). With a purchased kit, we will not have to worry about that.

KIT REQUIREMENTS

A list of approved puzzles is posted. Students may also find a different one but must get instructor APPROVAL. The puzzle must have a mechanical "MECHANISM" (e.g., gears, levers, etc.). It cannot just be a fixed 3D puzzle (e.g., Eiffel Tower) that does not move or articulate. Also puzzles with simple turning wheels (e.g., a rolling car) are not sufficient. You can search using terms like: mechanical puzzle, 3D puzzle, laser-cut wood puzzle or mechanism, etc. Get APPROVAL from the instructor Purchased mechanisms range from $20's on up. The student is not obligated to get the expense ones.
Students will inform the instructor of which kit they are selecting.
Students must also get approval from the instructor for any alternative kit.

ASSEMBLY

Students will assemble the mechanism in class or at home. If assembling at home students must demonstrate progress each week by showing the instructors photos or videos of their work. The pictures/videos are also needed for the presentation. Be sure to take pics and vids of key working mechanical components so that you can explain how the mechanisms works (before they are covered up).

PROJECT DEMOS

On the DUE DATE students will demonstrate their mechanism working. Students will also do a brief presentation explaining how the mechanism works. The presentation is very informal so try not to worry. The presentation should be much like how you might explain how the mechanism works to a friend who asks you.
It is strongly suggested you complete and demo PRIOR to the due date. This helps ensure you get full credit (eg - if you don't attend the last day of class). Even if you demo prior to the due date, I will have you bring your project to last day of class so we can see all of them at once.