

Action needed for Presentation sign-up. See below.

As mentioned last Wednesday, there is an opportunity (for up to 12 groups) to present your work and findings on this four bar linkage project in front of the class in the ME 2145 session on Wednesday January 28th. Presentation at this time will mean that you will not have to do a presentation of the larger term project on April 1st, and can instead concentrate on the prototype building and report for that project. That project will have three milestone reports prior to the final report, and will be outlined soon in an ME 2145 class.

All groups have been assigned a group number which appears as a “comment” on the Crowdmark submission of group names. There is one group which signed up on paper, but not in Crowdmark, and they are group 18. There are some others who are not yet in a group, and should email me to confirm their status in the course and get a group(s) established.

For the four bar project, the instructions on D2L should provide a guide for the contents of the report, but with only 5 minutes available for each group for the presentations, efforts will need to be made to describe, show, and discuss your mechanism and findings in an efficient and clear way. (This same time limit will be used for the presentations for the later project). As a rough outline, it is suggested that you give a brief explanation for the linkage dimensions and arrangement you chose, the classification and possible movement configurations that result, limits of movement, coupler curves for at least three points, preferably with Matlab plots to illustrate, and a possible application for the mechanism (see mechanism functions note below).

For groups wanting to present their four bar linkage results on January 28th, please have one group member send me an email, and include your group number (from Crowdmark as mentioned above). The first 12 groups to reply will be listed for presentation. Whether presenting or not, the reports for the four bar project are due at noon on February 4th.

Notebook note: Don’t forget to put all your individual work, organizational notes, lists of work to be done, information gathered, etc. in your notebook (also described in the syllabus). This notebook will be used for both projects in ME 2145, and submitted in PDF form at two points in the term.

Mechanism functions note: generally the purpose of a four bar linkage can be either to guide a point through a path of travel in space, or motion generation in which case the orientation is important as well as the path of travel, or have the output as some function of the input (a function generator). This latter category is less common with electronic control being increasingly used, however the mechanism used for windshield wipers is an example of a very useful application in this category.