

Lab Assignment #5: Blend & Sweep Features

ME170

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Date Due: One week from Start Day of Lab (turn in deadline – 11pm night before next lab)

Part I. Complete Tasks 4 thru 16 of Exercise 10 (pg 234-245)

You completed tasks 1 thru 3 in Lab 4. The goal of this exercise is to become familiar with creating engineering features.

Task 13

- To set the model display to "Wireframe", navigate to the "View Ribbon", click the "Display Style" button, and select "Wireframe" from the drop-down menu.
- Be sure to select the correct rib tool. The book calls for a "Profile Rib", which is quite different from a "Trajectory Rib".
- After creating the datum plane, click "Sketch View".
- Carefully select the correct additional references. If your references are incorrect, your rib will be incorrect.

Task 15

- You may set the display style back to "Shading" or your personal preference.
- Use the given orientation of the planes to select the correct surface. This surface is effectively the 'bottom' surface'.

Part II. Complete Exercise 12 (Tasks 1-4) (pg 286-292)

The goal of this exercise is to work with blend and sweep features.

Task 1

- When sketching the rectangle, note that a "center rectangle" is specified. The "center rectangle" tool can be selected by clicking the little down arrow next to the "rectangle" tool.
- While sketching the rectangle, note the location of the cross-hairs. The location of these cross-hairs will be the location of the start point. In previous semesters, students had difficulty properly locating the start point on the rectangle. In numerous instances, the rectangle had to be deleted and redrawn until the start point was located correctly.

Task 2 & 3

- Select the edges in the order and locations shown. Note the curve edges shown in task 2. Be sure to select the correct edge location.

Task 4

- The "Sketch 1" feature may already be hidden. This is OK. If you do not need to actively hide the sketch, then there is no change to the visibility status of the model and you will not be able to click "Save Status".

Part IV. Submission Requirements

Create a zip file named "<netid>_lab5.zip" with the following files. Submit it for grading through the my.mechse website. Be sure to include the latest version of each part.

netid_4455-009.prt.#	(from Part I)
netid_4455-004.prt.#	(from Part III)
netid_4455-005.prt.#	(from Part III)
netid_4455-007.prt.#	(from Part III)