Creo Extrude Tutorial 2: Cutting and Adding Material

1. Open Creo Parametric

2. File > Open > extrudetutorial (From Creo Extrude Tutorial 1)

3. Cutting Material
   a. Model Tab > Click Extrude Icon > Select the following Surface highlighted in green
   b. Part will rotate perpendicular to the selected surface
   c. Go to View Tab > Display Style > Hidden Line
      Changing view style can make it easier to see how the edges relate to each other orthographically
   d. Setup References > References allow the user to select known edges to snap to
   e. Go to Sketch Tab > Click on the References Icon under Setup (1st Column)
      Pop up menu should appear. This will list all of the edges selected. User can select as many edges as they need (We are adding more than needed here). Select all of the edges of the part.

      A Datum Line (Dashed Blue Line) Will appear on top of each of the edges User can add Reference lines at any time.
f. Use Sketching Tool > Rectangle and draw a rectangle starting from the top edge. Cursor should snap to the top edge because of the reference line. Without the reference line the cursor would not snap to the top edge. Similar to what is shown > Click Middle Mouse Button to exit out of the Rectangle Tool. Remember the dimensions do not need to be the same as the tutorials yet. Software will automatically dimension and the profile will shade in. The sketch will not shade in if it is an open profile.
g. Change the dimension using the **Dimension Tool** to what is shown and change the values to the same as what is shown. **Middle Mouse Button** will exit out of the **Dimension Tool**. Note the dimensions you are changing to are not the only set that will work for this part. Remember this is practice.

![Dimension Tool Image]

h. Click the Green Check to Exit Out of the Extrude > Press Letter i and a

i. If the Extrude Preview disappears click on the Extrude Tab to reshow it.

j. Change the View Display back to Shaded. **View > Display Style > Shading**

k. The Profile is shown as adding material. Click the Subtract Material Icon on the Extrude Info Bar and Flip on Datum to place the cut into the part. Change the Extrude Value to 1.00

![Extrude Value = 1.00]

![Flip Datum]
Part should look as follows

I. Modifying Sketch Size while in the Extrude Menu Bar

m. Click on Placement Tab > Edit > This will place you back into the sketch. Change the values as follows

n. Click Green Check to exit out of the Sketch. Part should automatically update

o. Hotkeys i and a > Click on Extrude Tab

p. Click Green Check to exit and finish the Extrude Cut.
q. Modifying and existing extrude and/or sketch

i. Option 1: Left Click on Extrude 2 in the Model Tree > Edit Definition (Icon Ball/Pen) > This will place you back into the Extrude Info Box > Here you can adjust the extrusion distance or go to Placement > Edit > Edit Part > Click Green Check or Red X to exit out of the sketch > > Click on Green Check to approve or Red X to cancel when finished; this will complete the modification

ii. Option 2: Click the Arrow next to Extrude 2 in the Model Tree > Select Section 1 by clicking Left Mouse Button > Select Edit Definition > This will take you directly into the sketch. You will be able to modify the sketch, but not the extrude distance > Click on Green Check to approve or Red X to cancel when finished; this will complete the modification

Try each Option. Adjust the model as seen below. Note Modifications can be made at any time.

Extrude Distance= 5.00 (NOTE This will make the cut Thru All)
Sketch Change= See Below

Modify Extrude Distance Back to 1.000
Save File

Part 3 Adding Material to an Existing Model

1. Model Tab > Extrude Icon > Select the surface shown

2. Change View Style
   a. View Tab > Display Style > Hidden Line

3. Set References
   a. Sketch Tab > Reference Icon (Setup, Second Icon)

4. Place a 1.00 x 1.00 Square in the bottom right corner

5. Green Check > Extrude Distance 1.00 > Green Check

6. Rotate and check out part

SAVE FILE

Step 4 Extra Extrudes

A. Add at least one more extrusion that adds material
B. Add at least one more extrusion that subtracts material
Part 5 Changing Model Color and Surface Color

7. Changing Model Color
   a. Goto the View Tab
   b. Select the part in the Model Tree. For this model it should say EXTRUDETUTORIAL. This will highlight the whole part
   c. Select Appearance Gallery Icon
   d. Choose your color

8. Changing Surface Colors
   a. Select your color from the Appearance Gallery
   b. Select your surface > Click Ok from the floating Select Menu

   NOTE: To change default colors Select Appearance Gallery > Select More Appearances > Double Click on the Color box in the Properties menu. Choose Color Wheel and then choose desired color. Click Ok. Click Ok

Save File

Show Mr Jourden upon Completion