

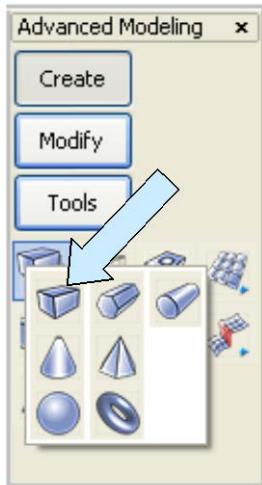
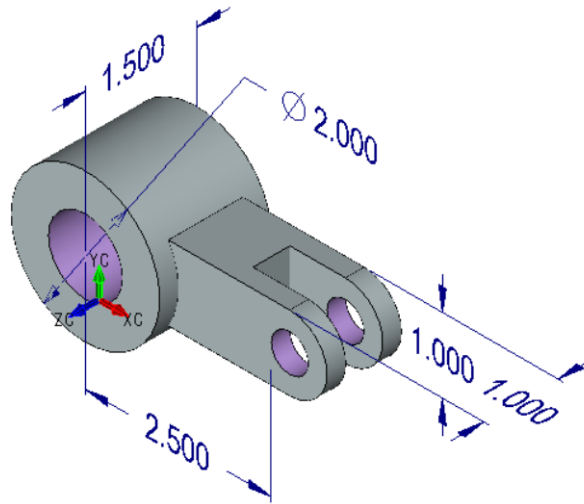
KEYCREATOR 3D Direct Modeling Software

KeyCreator Lesson KC3706

Dynamite Dynamic Modeling!

In this lesson we're going to create the block illustrated to the right.

Start with a new file in the Isometric View (View 7.) with a construction plane assigned to the Top View. (View 1.)



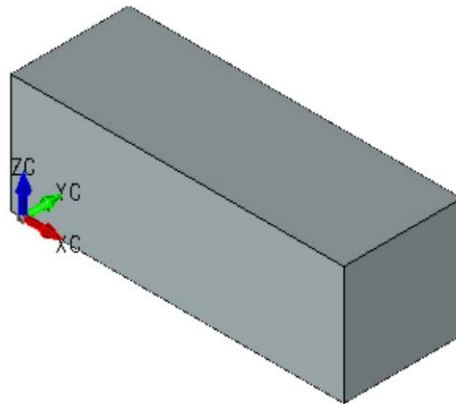
Click on the BLOCK Icon.
A Dialog Box appears.

Click on the Sketch Option and use the current Cplane Axis.
Hit the ENTER Key.

Click near the origin and then move the cursor to the right and up. A dynamic face grows on the screen. With the X value around 3 inches and the Y value around 1 inch click to set the opposite corner.

Move the cursor upward and click when the Z value is about 1 inch.

Your screen should look like this:



Click on the CONSTRUCTION PLANE Icon.
Type 2 for the Cplane Number.

KEYCREATOR 3D Direct Modeling Software



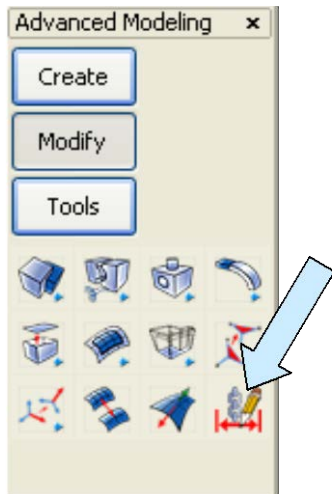
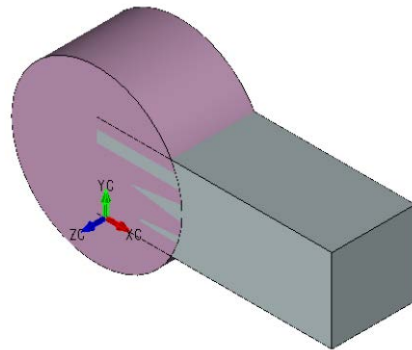
Click on the CYLINDER Icon.

A Dialog Box appears. Click on the Sketch Option and use the current Cplane Axis. Hit the ENTER Key.

Using the CtrMid Option, click on the left, front edge of the block. Move the cursor to the right and a circle grows on the screen. Click when it is about 2 inches in diameter.

Move the cursor up and to the right and a cylinder grows on the screen. Using the CtrMid Option, click on the rear, left edge of the block.

Your screen should look like this:



Click on the DIMENSION DRIVEN EDITING Icon.

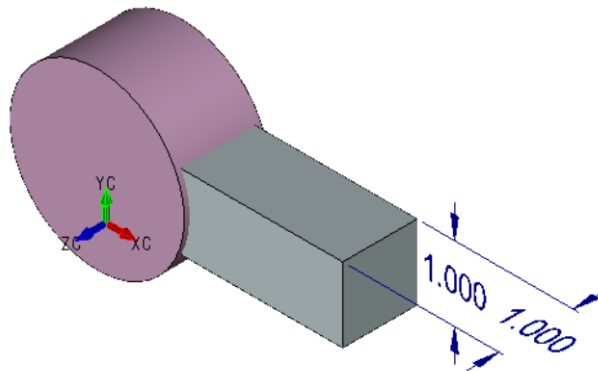
Click on the top, rear edge of the block and the bottom, rear edge of the block and place a dimension to the right of the block.

Edit this to be 1 inch. **(Click on the dimension text.)**

Click on the top, rear edge of the block and the top, front edge of the block and place a dimension to the right of the block.

Edit this to be 1 inch also. **(Click on the dimension text.)**

Your screen should look like this:

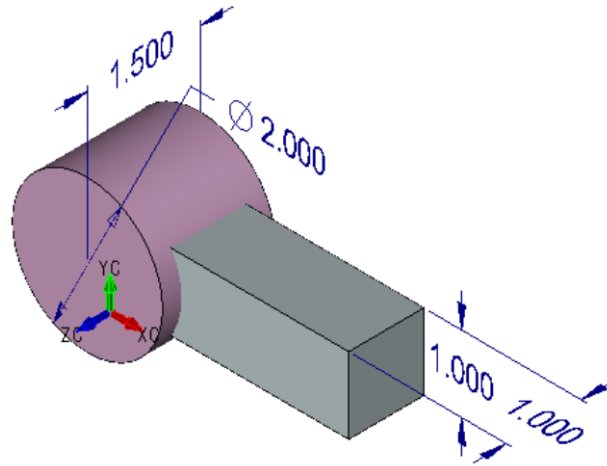


KEYCREATOR 3D Direct Modeling Software

Still using the Dimension Driven Editing Tool, click on the front circular edge of the cylinder and place a diameter dimension. Edit this to be 2 inches.

Then, click on the front edge and rear edge of the cylinder and place a dimension for the length of the cylinder. Edit this to be 1.5 inches.
(Click on the dimension text.)

Your screen should look like this:



Click on the BOOLEAN UNION Icon.

Select the block and the cylinder and hit the ENTER Key. You now have one solid.

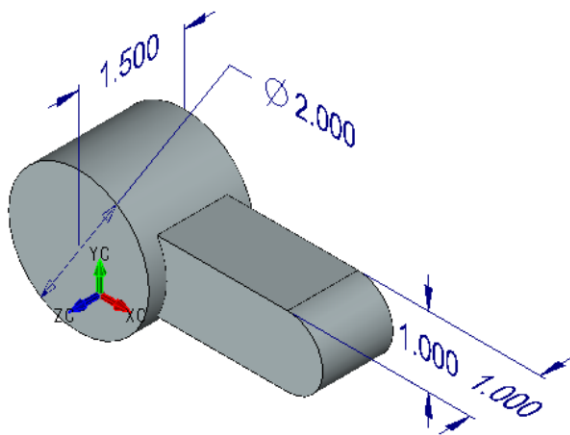
Click on the CONSTANT RADIUS BLEND Icon.

A Dialog Box appears.
Type 0.5 for the Radius and hit the ENTER Key.



Click on the top, right and bottom, right edges of the block and hit the ENTER Key.

Your part should now look like this:



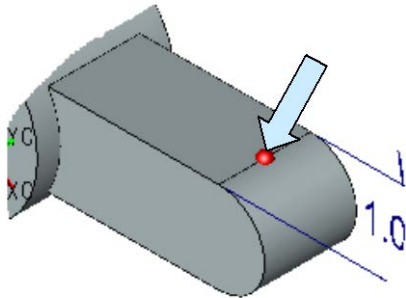
KEYCREATOR 3D Direct Modeling Software



Click on the CONSTRUCTION PLANE Icon.
Type 1 for the Cplane Number.

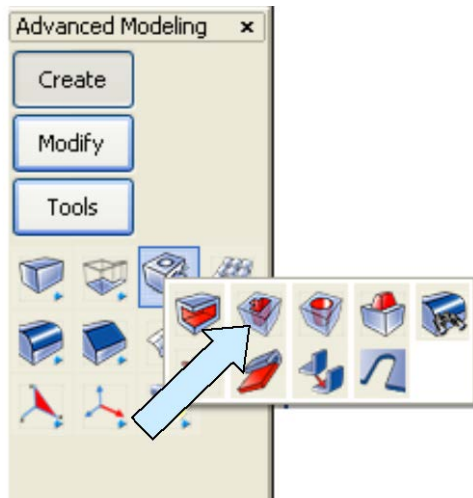
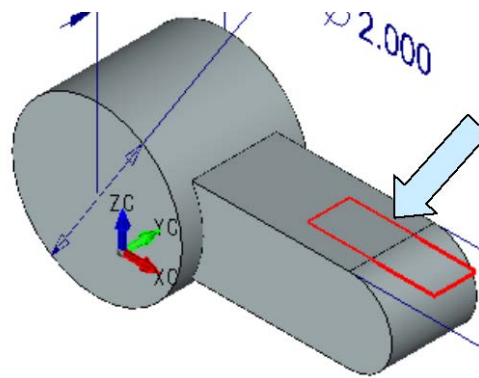
Click on the CREATE RECTANGLE BY WIDTH HEIGHT Icon. Use the MidCtr Anchor Option.

Type 1.5 for the Width and 0.5 for the Height.



Using the CtrMid Option, click on the tangent line at the top of the rounded right end of the part.

Your screen should look like this:



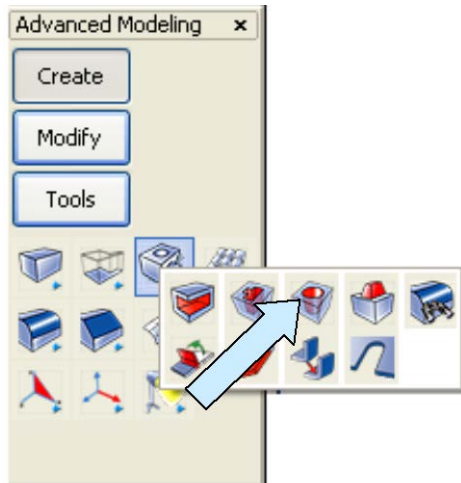
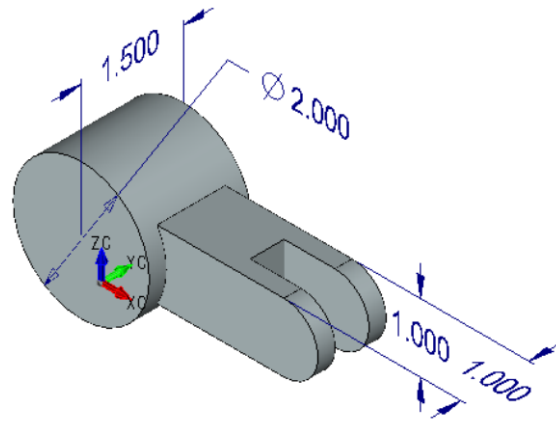
Click on the CUT Icon.

A Dialog Box appears. Select the Forward and Back and Through All Options and hit the ENTER Key.

Click on the solid. Then, select the rectangle and hit the ENTER Key.

KEYCREATOR 3D Direct Modeling Software

Your part should now look like this:



Click on the DRILL Icon.

A Dialog Box appears.

Click on the Through Hole Option.

Type 1 for the Diameter and hit the ENTER Key.

Click on the front face of the cylindrical section and then, using the CtrMid Option, click on the circular edge.

Click on the BACKUP Button and when the Dialog Box reappears type 0.5 for the diameter. Hit the ENTER Key.

Click on the front face of the arm and then, using the CtrMid Option, click on a circular edge at the right end of the part.

Your completed part should look like this:

