### KeyCreator Lesson KC3704

#### **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 1 inches and the Y value around 3 inches click to set the opposite corner. Move the cursor upward and click when the Z value is about 2 inches.

Now, move the cursor to the right of this first block about an inch. Click and then move the cursor to the right and up. A dynamic face grows on the screen. With the X value around 2 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 1.5 inches. Your screen should look like this:





Click on the CONSTANT RADIUS BLEND Icon. A Dialog Box appears.

Type 0.375 for the Radius and hit the ENTER Key.

Click on the two short lower edges on the first block you made and on the top, right edge of the second block that you made and hit the ENTER Key.

Your screen should look like this:



Next, click on the DIMENSION DRIVEN EDITING Icon.

#### For the Left Block:

Click on the top, rear edge and place the dimension above the block.

Click on the left, rear, vertical edge and the left, front, vertical edge and place the dimension above the block.

Click on the left, top edge and the left, bottom edge and place the dimension in front of the block.

As you place each of these dimensions, edit them so the block resizes to the dimensions shown to the right.



#### For the Right Block:

Click on the left, rear, vertical edge and right, rear, vertical edge and place the dimension above the block.

Click on the right, rear, vertical edge and right, front, vertical edge and place the dimension below the block.

Click on the rear, top edge and the rear, bottom edge and place the dimension below the block.

As you place each of these dimensions, edit them so the block resizes to the dimensions shown to the right.





Now, click on the SHELL Icon.

A Dialog Box appears. Type 0.25 for the Shell Thickness and hit the ENTER Key.

Click on the right face, top face, and hidden, left face of the left block and hit the ENTER Key.

Next, click on the front face, hidden, left face, hidden, bottom face, and hidden, rear face of the right block and hit the ENTER Key.

Your two parts should now look like this:





Click on the GENERIC MOVE Icon. Click on the right block.

Using the CtrMid Option, click on the top, left edge of the right block.

Move the cursor and the block follows.





Using the CtrMid Option, click on the right top edge of the horizontal section of the "U-Block." This assembled the two pieces correctly.

Click on the BOOLEAN UNION Icon. Click on the two blocks and hit the ENTER Key.

You now have one solid part.





Finally, click on the DRILL Icon.

Click on the Through Hole Option and type 0.5 for the hole diameter.

Click on the front face of the front leg. Click on the Offset Option. Using the CtrMid Option and click on the top, front edge of the front leg.

Hit the ENTER Key twice, type –0.75 for the Z value and hit the ENTER Key.



Your part should look like this:

While you have the drill handy, create the hole in the lower leg. I'll let you do that on your own!



Your finished part should look like this: