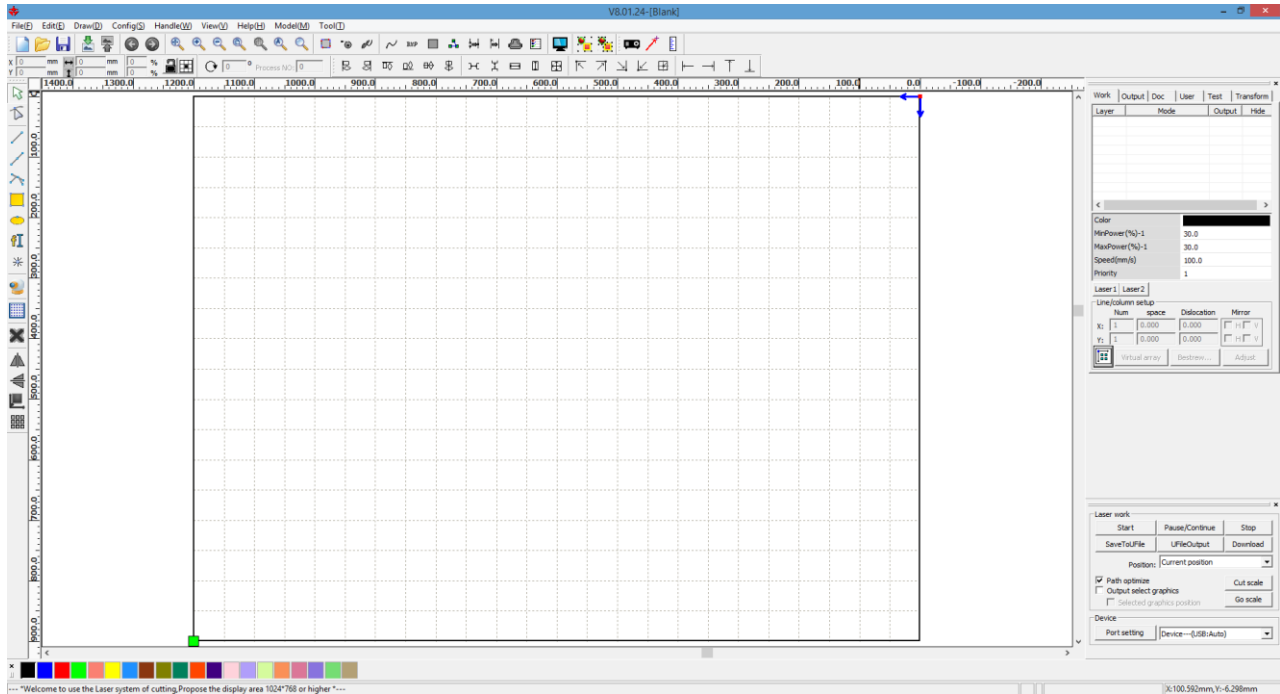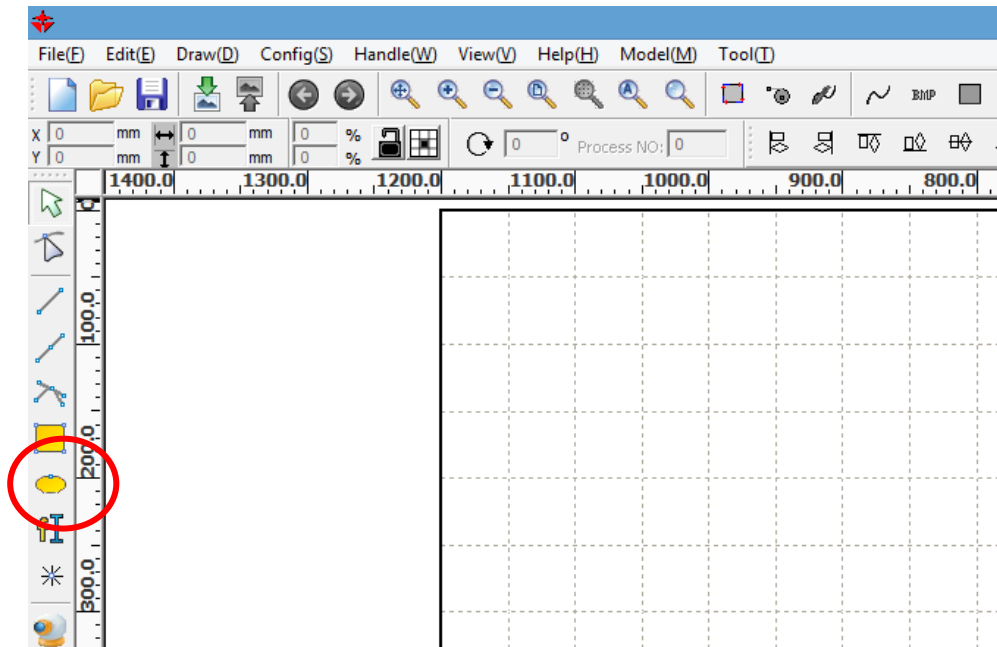Working with RDWorks to cut a simple circle. Complete the following steps:

1.) Open the RDWorks windows application.
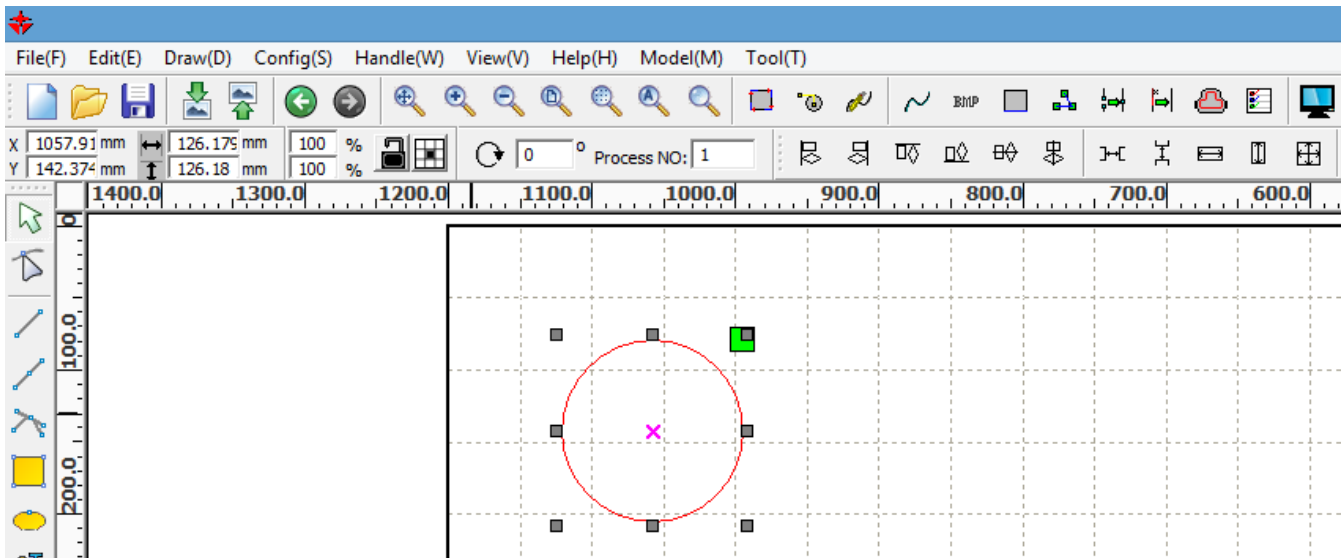

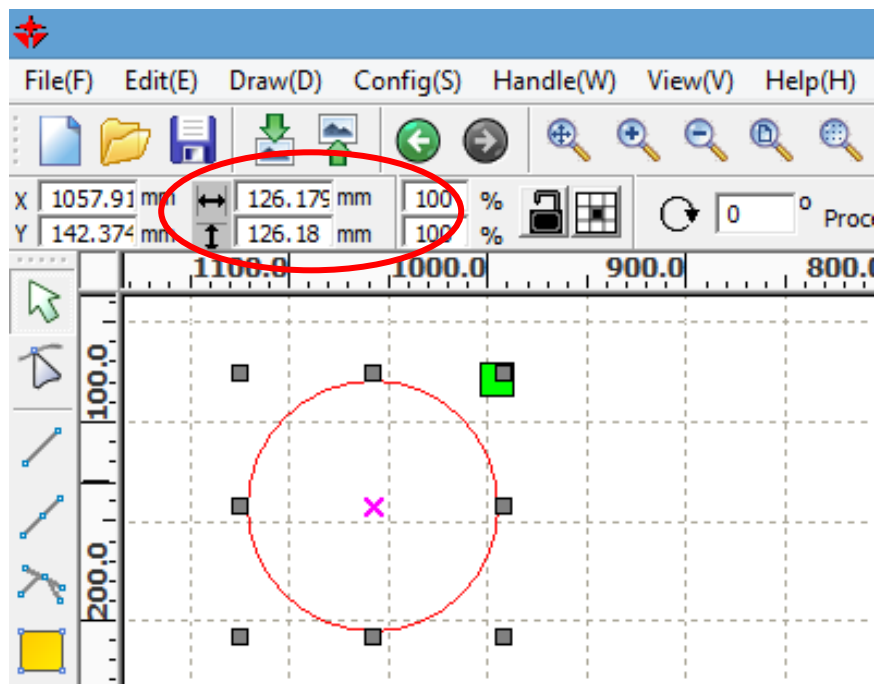2.) Left click on the ellipse image to select the "Ellipse" tool.

To draw a circle on the workspace, click and hold on the work area, drag the mouse to the opposite corner of the circle, then release the left mouse button.
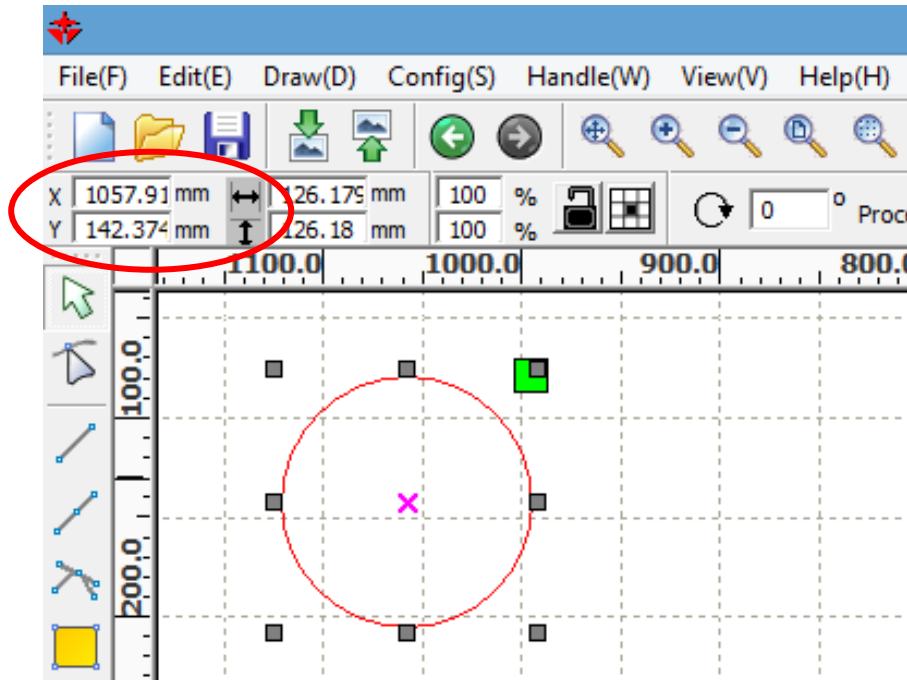
3.) Click on the circle again. This will turn the circle red and have the stretchable nodes highlighted to show that the circle is selected.
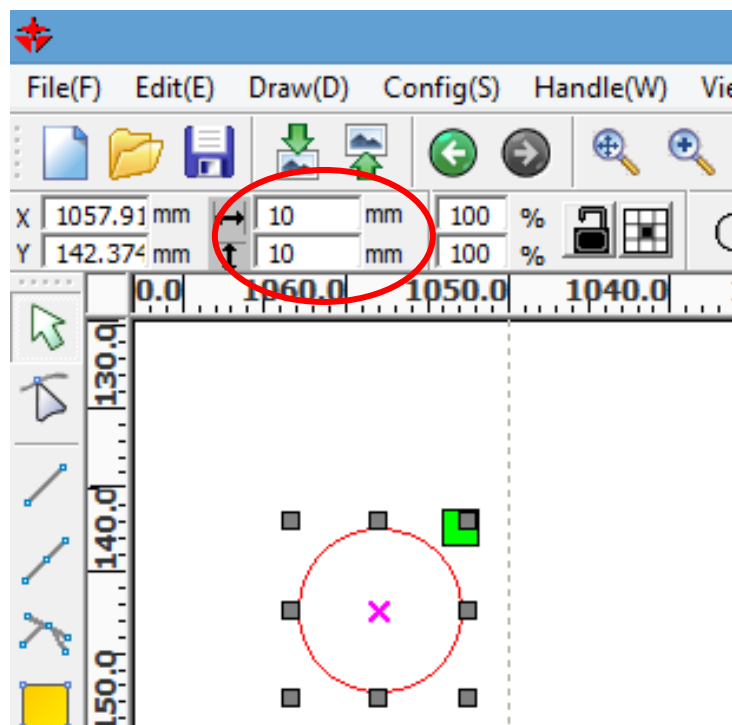

4.) The size of the circle can be changed by using the menu-bar tools. Locate the dimension menu in the upper left of the RDWorks software. The width of the circle can be modified by changing the numbers just left of the tool with left-right arrows. The height of the circle can be modified by changing the numbers just left of the tool with up-down arrows.

5.) The location of the circle can be changed by using the menu-bar tools. Locate the coordinate menu in the upper left of the RDWorks software. The X and Y values show the position of the circle in the Drawing Area. Change the X value to move the circle Upward or Downward. This relates to the Front and Back of the laser work table. Change the Y value to move the circle toward the left or right. Notice that the X and Y coordinates correspond to the ruler at the edge of the work area.
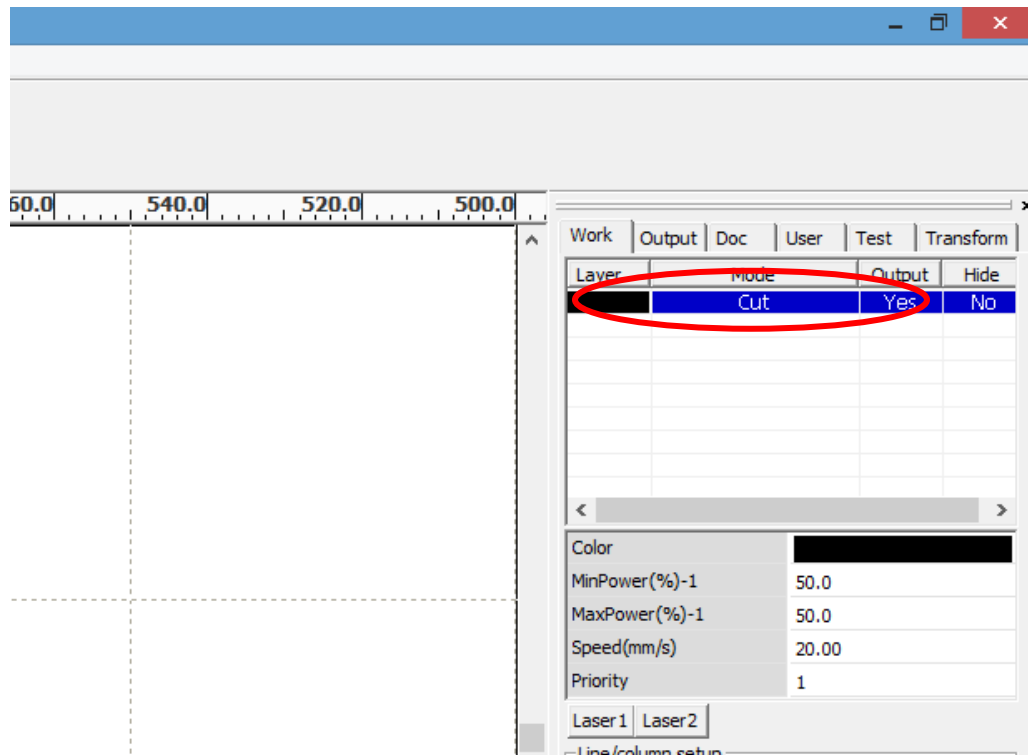

6.) Type in new values in the ↔ (Size in X dimension) and ↕ (Size in Y dimension) to change the dimensions of the ellipse. In this example, the dimensions are set to "10" millimeters.
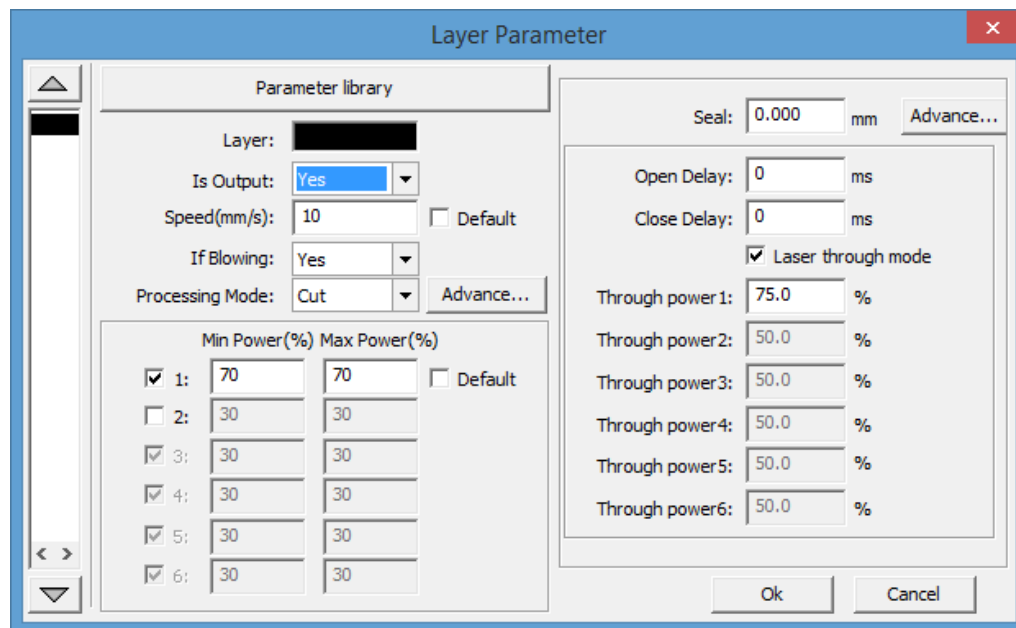

Notice that the original ellipse has changed into a circle and now has the exact size that was typed.

7.) Each project can have many layers to separate parts of the project. The unique feature of each layer is the color. In this design, there is only one object (the circle) and so there is only one color layer. The next step is to change the value of the "Speed" and "Power" settings to cut the circle. Double-Click on the layer at the Mode column where "Cut" is currently indicated.
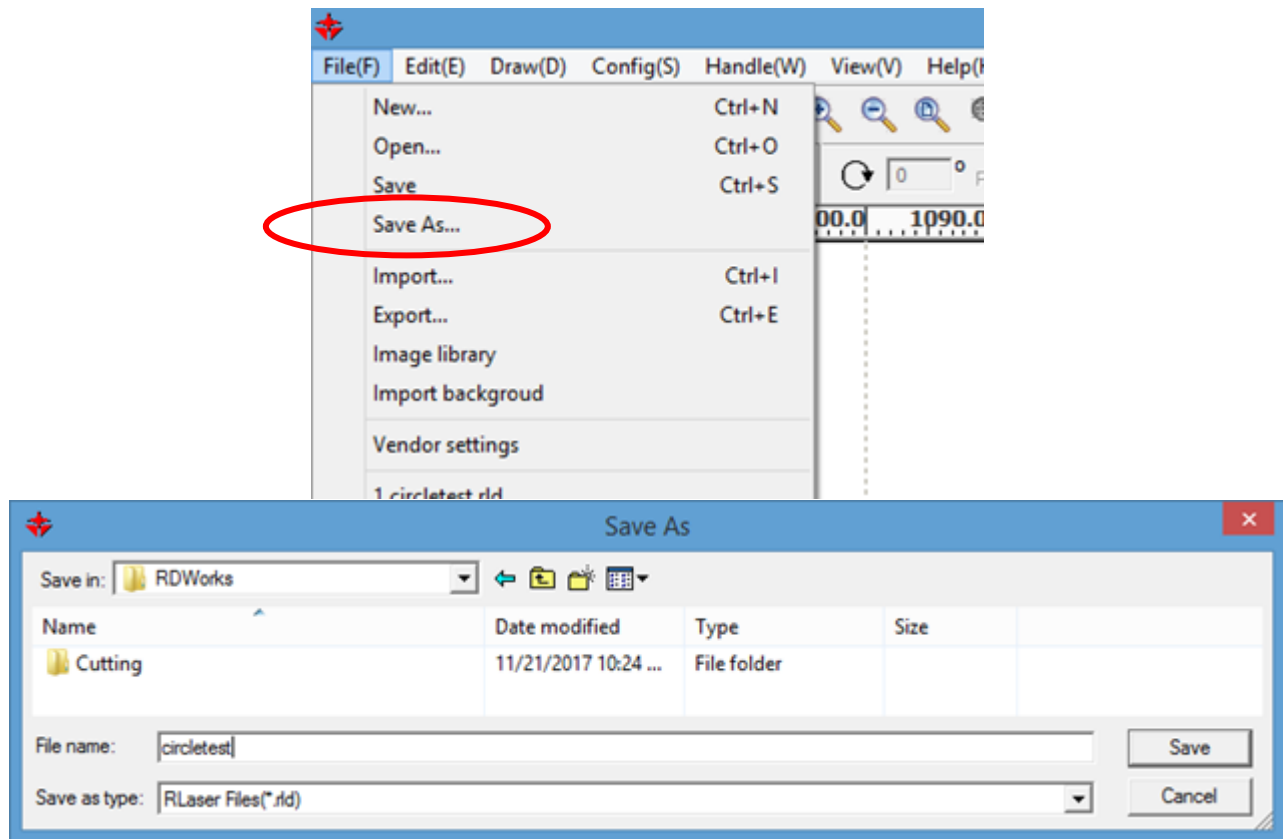

8.) After clicking on the layer, the "Layer Parameter" window will appear. Please refer to our "Common Settings for Cutting and Engraving Materials" data sheet for help finding the appropriate settings of the materials you are using. In this example the "Speed" has been set to "10", and the "Min Power" and "Max Power" were set to "70". Click "Ok" when done.
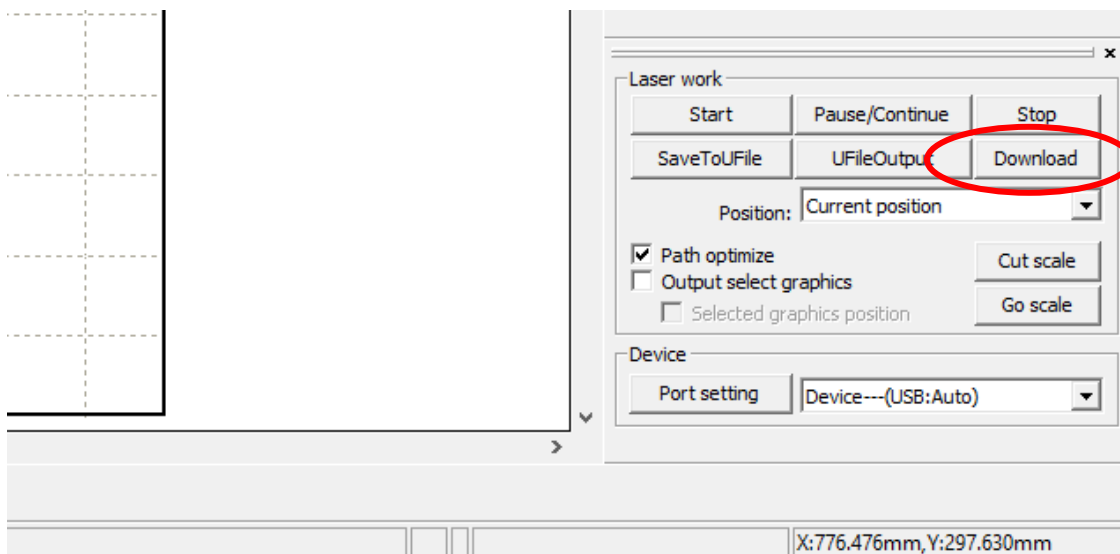

The "Through Power 1" is set to "75". This is the initial piercing power used when the laser starts cutting.

9.) The project is completely designed and needs to be saved. To save the project to the computer, go to menu "File… Save As…", then put the new name of the file into the dialog box.
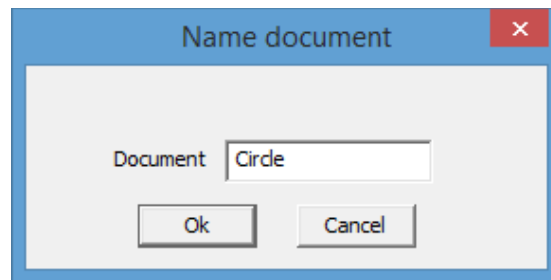

This file has been saved with the name "circletest.rld". The *.rld file extension is for this RDWorks program and does not denote any other software file format.

10.) The circle is drawn. The laser settings are modified. The design project has been saved to a file. The next step is to click "Download" the design into the laser machine. Make sure that the computer is connected to the laser machine by USB cable and that the laser machine is turned on. (The computer should already have the device drivers installed.)

11.) The "Download" command will start a new connection to the laser machine. The "Name document" window will appear. Enter a name for the laser machine to use. The RDWorks software will only accept letters and numbers to be used for the Document name and is limited to a maximum eight characters long.

12.) The computer should communicate with the laser controller to transfer the project. Once done, the will show a small window that your project has transferred successfully. The project can be opened in the laser operator panel and should be ready to cut.

* The circle project is a very simple shape, but demonstrates that any basic design can be transferred. Once you are able to accomplish this easy task, you can import much more complicated designs for cutting, engraving, and mixed mode combinations.

** Please remember to check focus and proper cutting material space.

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