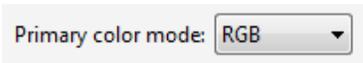


HOW TO USE COREL DRAW

Starting the program

1. Start CorelDRAW with green icon in the 3D Lab folder on the desktop.
2. When program opens, click File > New from top menu.
3. Measure width and height of your piece in inches.
4. In "Create a New Document" window, enter width and height of your piece into respective fields.
5. **Choose "RGB" for "Primary color mode".** 
6. Click [OK] button.



Placing ruler guides

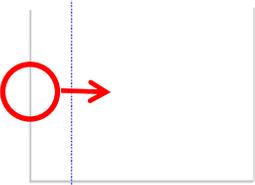
1. Guides keep text & graphics away from areas in your piece. For instance, with a photo frame, guides make boundaries to keep things away from the photo in the center of the frame.

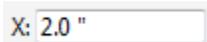
2. To place a horizontal guide, measure your piece from the **bottom-up** where you want guide to go.

3. Point to horizontal ruler near top of screen, hold down mouse button, then drag guide to where you want it. 

4. To fine-tune guide position, edit number in "Y:" field in top-left corner of screen. 

5. To draw a vertical guide, measure your piece from **left side** of your piece.

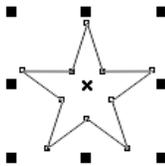
6. Point to the vertical ruler on left side of screen, then drag guide to where you want it. 

7. To fine-tune guide position, edit number in "X:" field in top-left corner of screen. 

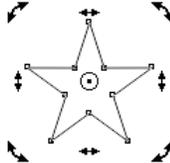
Adding text

1. Click "A" tool on left-side toolbar. 
2. Point to where you want text to appear, then **click once** (do not drag a box).
3. Type your text.

Changing font and size

1. If your text does not have black boxes around its corners:
 - a. Click white arrow tool on left-side toolbar. 
 - b. Click black part of your text to highlight it. 
2. Choose a different font from drop-down list at top-middle of screen.
3. Grab a corner black box to stretch text larger or smaller.

Moving/rotating text

1. Highlight text with white arrow tool. Black boxes should appear at its corners.
2. To move text, point to middle of text, then drag text somewhere else.
3. To rotate text, click **once** in middle of text. The black boxes will turn into arrows. 
4. Hold-down [Ctrl] key, then drag a **corner** handle to rotate.

Centering text

1. To center multiple lines of text in relation to each other, click the "A" tool, then highlight all of the text.
2. Click the Horizontal Alignment button in top toolbar, then choose "Center" from menu that appears. 

(flip page over)

3. To center a block of text to middle of page, click white arrow tool, click your text block to select it, then press [P] key.

To reduce spacing between lines of text

1. Click the "A" tool, then highlight all of the text.
2. Press [Ctrl-T].
3. On the right side of screen, lower the percentage in Paragraph section (Line Spacing field).



Adding pictures

1. Open a web browser and search for pictures on images.google.com. In search box, append "clipart black and white" to your search to find laser engraver compatible images.
2. Right-click on the image you found, then click "Copy image".
3. In CorelDRAW, right-click an empty area, then choose "Paste".
4. To move/rotate/resize pictures, refer to "Adding text" section in these instructions.

To remove unwanted areas in the picture

1. Click Crop tool on left-side toolbar.
2. Draw box around the area you wish to keep.
3. Press [Enter] to finish cropping.



To improve sharpness of a picture

1. Select picture with white arrow tool.
2. In the top toolbar, choose [Trace Bitmap] button, then Outline Trace, then Detailed Logo.
3. In window that appears, your original picture appears on the left and a sharper version on the right.



4. Move Detail slider to the right until the right side picture looks good.

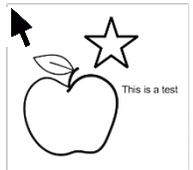


5. Click OK to finish tracing.
6. The sharper version of the picture will appear on top of your original picture. Move sharper picture to the side, then delete original picture.
7. Optionally, you can edit the sharper picture, remove unwanted areas, etc. To do this, right-click on picture, then choose "Ungroup all objects" in menu that appears. You can now click individual pieces of the object to delete them, recolor them, etc.



Grouping items

1. Your design may have multiple pictures, blocks of text, etc. You can group these together as one "piece" making it easier to move them around, center them on a page, rotate/resize together, etc.
2. Draw a large "lasso" around objects that you wish to group.
3. Press [Ctrl-G] to group them.
4. To ungroup objects that you already grouped, select the objects with white arrow tool, then press [Ctrl-U].



Drawing lines & shapes for cutting

1. Use the Freehand, Rectangle, Ellipse, and Polygon tools on left-side toolbar to draw shapes that you wish to cut-out on laser engraver.
2. To draw straight lines, hold-down mouse button on the Freehand tool, then choose one of the line drawing tools that appears.
3. For each shape that you draw, set line thickness to "Hairline" in the top toolbar. This tells laser engrave that you wish to "cut" these lines. Thicker lines will be engraved as images on your material instead.

