Setup my system for contour-cutting

Here is a step-by-step guide to get SignCut-X2 setup to work for contour-cutting with your machine.

We recommend to insert a pen and plot on paper first, to get used to the system, and getting everything calibrated before using in real-life. When doing that, it is also important to setup the blade offset to 0 otherwise you will not get correct results, as it would compensate for the knife-tip offset.
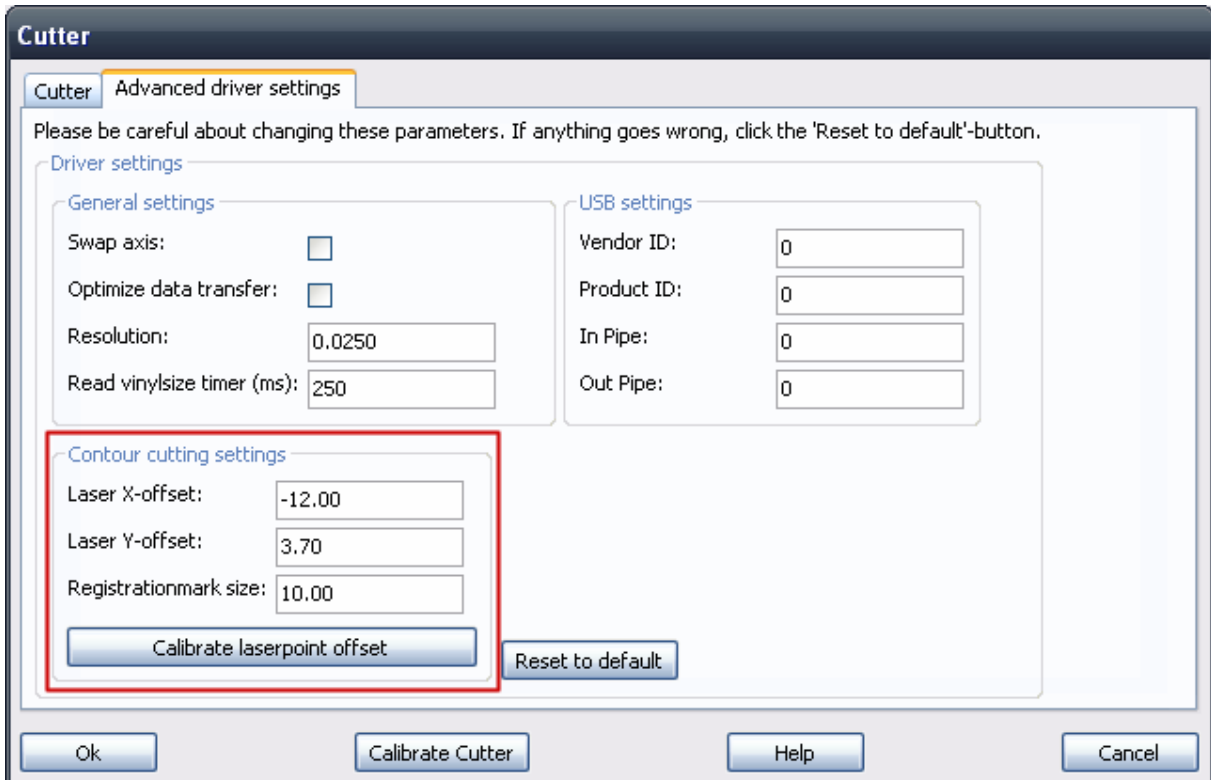
Step 1: Prepare for plotting on paper by using a pen.

Exchange the knife-holder with the pen which is usually included with the machine.
Open SignCut-X2, click on the Cutter-button to open that dialogue.
Now change the Blade offset to 0.

Step 2: Setup the laserpoint x and y offset.

While the Cutter-dialogue is still open, click on the "Advanced driver settings"-tab.

The redmarked area is the part that is important for contour-cutting.
You may enter the offset for the laserpoint manually, or use the "Calibrate laserpoint offset" funtion, which is highly recommended.
The X-offset is the roll-length direction, and the Y-offset is the width of the machine.
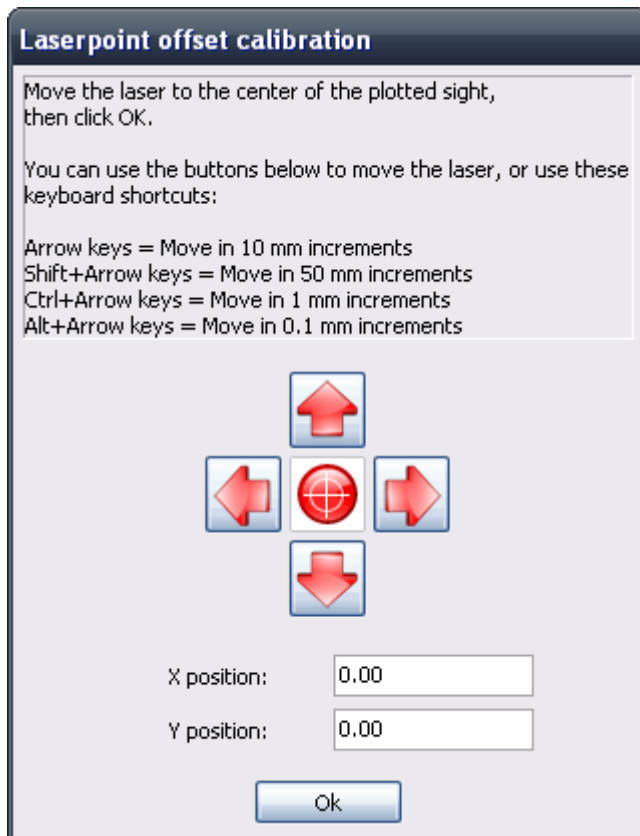
Another important thing is the size of the registration mark used, we recommend 10.0mm and that is what is used in our example-files.

Click the "Calibrate laserpoint offset".

You will see this dialogue:
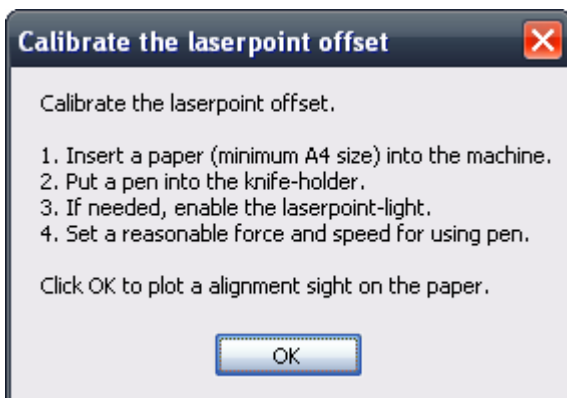
Please read this dialogue carefully and follow the directions, then click OK to continue. Now a alignment sight will be plotted, then this dialogue will show up:

Laserpoint offset calibration

Move the laser to the center of the plotted sight,
then click OK.

You can use the buttons below to move the laser, or use these
keyboard shortcuts:

Arrow keys = Move in 10 mm increments
Shift+Arrow keys = Move in 50 mm increments
Ctrl+Arrow keys = Move in 1 mm increments
Alt+Arrow keys = Move in 0.1 mm increments

X position: 0.00

Y position: 0.00

Ok

You can now move the laserpoint with the buttons, or the keyboard (which is recommended).

You can also use the numerical-keyboard, and use the 5-key to change movement-steps, alternating between 10mm,1mm and 0.1mm steps.

Set the laserpoint as exact as possible to the center of the sight and click Ok to close the dialog.

Now the calibration is done, and you are ready to make a test contourcut.

Step 3: Make a test contourcut with a pen.

Depending on what layout software you use, there are different example-files available for you. But here is the file-structure to choose from.

First, locate the SignCut-X2 folder. (usually "C:\program files\SignCut X2"), then open the examples-folder. Then open the Simple_Contourcut folder.

Now you will find the following file-structure:

If you use another software for printing, then choose the Illustrator-folder, as most softwares can open AI-files.

Now, for this test-cut, open the file named "Misc_Example_A4_Print", from the desired examples folder.

Then print it out on a A4-sheet* from your software.

Now, open the "Misc_Example_A4_Cut.ai" file from the Illustrator\Examples-folder in SignCut-X2, like this:
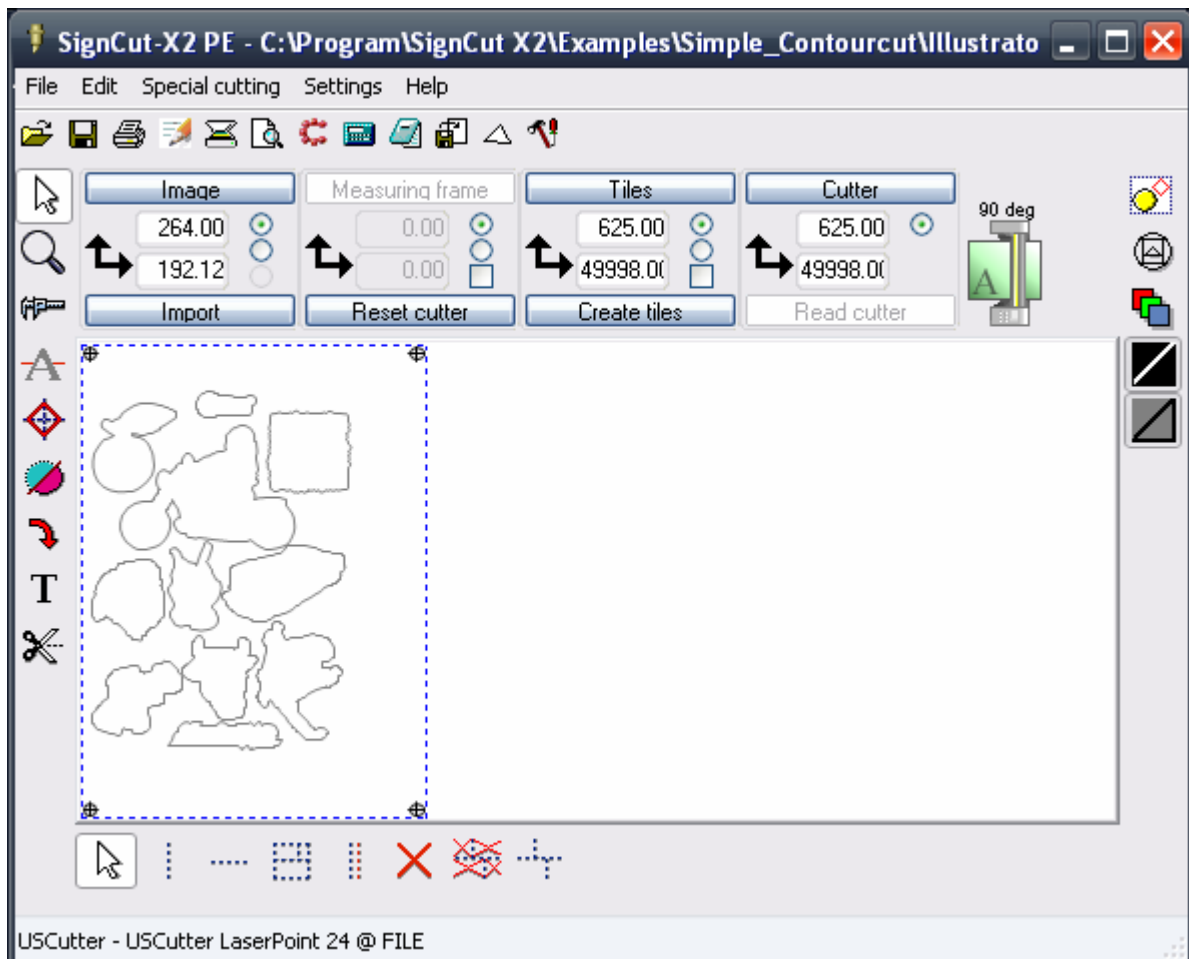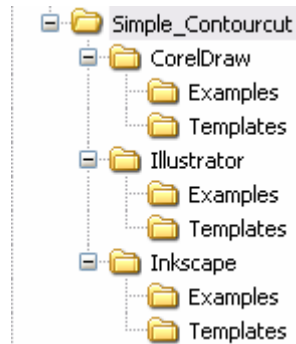

*A4-sheet is identical to 8 1/2 " x 11

It is important to understand how the axis works in SignCut-X2 with your machine.

A tip is to look at the green plotter-icon next to the Cutter-button. As you can see the A is down in the corner going along the vinyl roll direction. That is the same as the width of the screen, so the A resembles the lower-left position in the working area. See this figure:

The direction of the red arrow is the width of the machine.
The direction of the blue arrow is the length of the vinyl-roll or sheet.

This means that when inserting the printed A4-sheet into
The machine, you should put the paper into the machine as
shown in this image, the side with the orange, lion and the boxing
bunny, should face towards you.

USCutter - USCutter LaserPoint 24 @ FILE
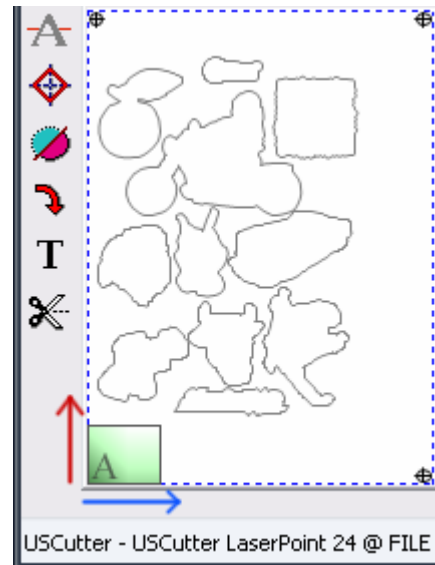
Ok, insert the paper into the machine, and it's recommended to fit it close to the teflon/plastic strip, for reference. See the picture below.
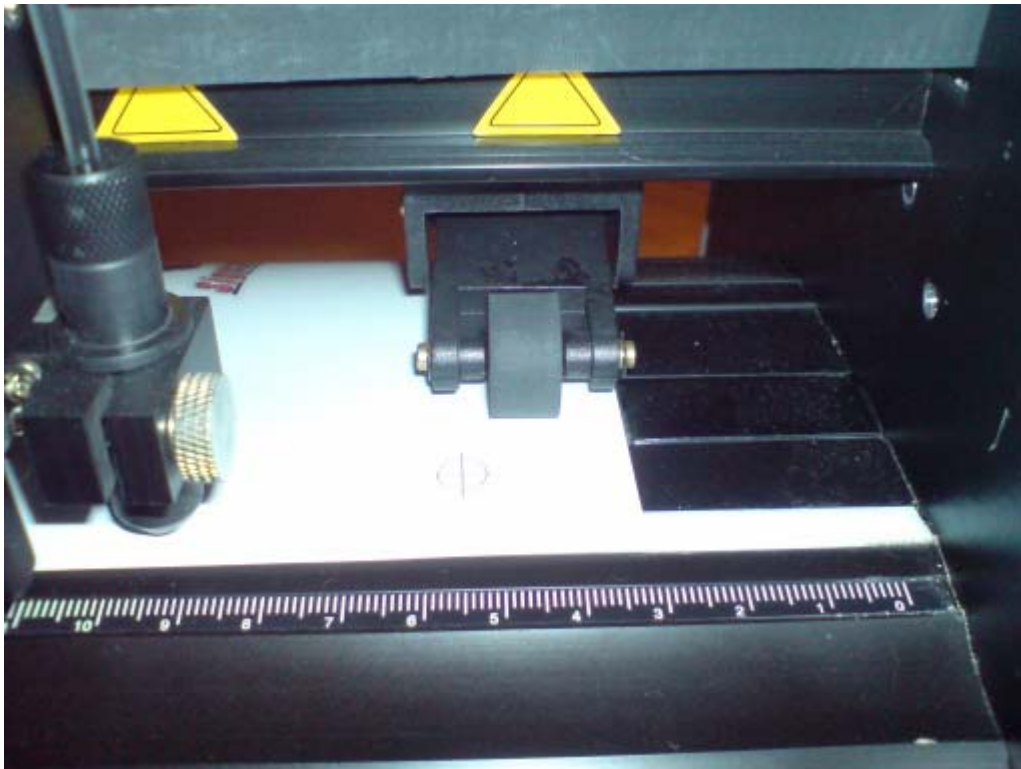
Once you mounted the paper, click on the menu-option "Special cutting" and then click on the "Simple Contourcut". This dialogue should appear:
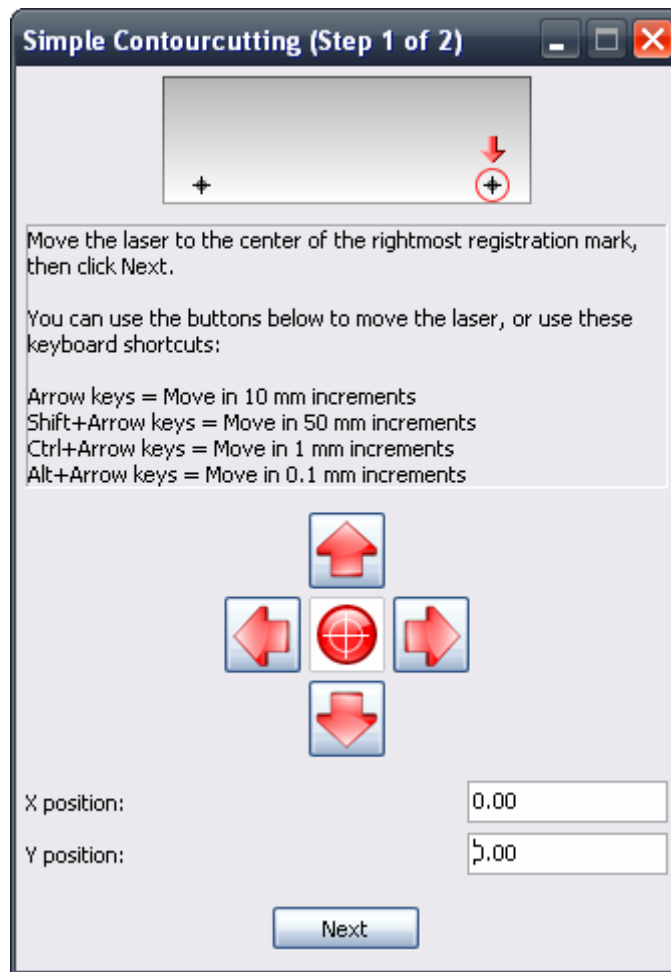
This dialogue is self-explanatory. What you should do is to move the laserpoint to the right-most registrationmark, and then click enter. We do recommend to use the keyboard-shortcuts as that is the quickest and smoothest way to align. You can also use the numerical-keyboard and pressing the 5-key on the keyboard will switch movement steps. (a tip is to use a usb-numerical keyboard so you can align while being at the machine).

Once satisfied, click Enter or the Next-button to proceed.

Now the laserpoint will try to set itself very close to the left-most registration mark in order to save time, once again repeat alignment, and when satisfied, click Enter or the "Cut out"-button to create your contours.

Congratulations, you have now performed your first contourcut with this easy and fast contour-cutting method. If you are satisfied with the result, then you may insert the knife, and set the blade-offset for your knife, and start production. Otherwise you may redo the calibration, and / or repeat this procedure until you reach perfection.

Once perfection is reached, save your Laser X-offset and Y-offset values, write them down to reset if needed.

Tips for better results

1. To get even better results both when aligning and calibrating your laserpoint setup, we found out that by using a penlight, with a bright blue-white light, would reduce the blur around the laserpoint spot, and thus making it easier to get correct offsets. We used a model which looked like this:

Here is a picture of how it would look when using such a penlight:
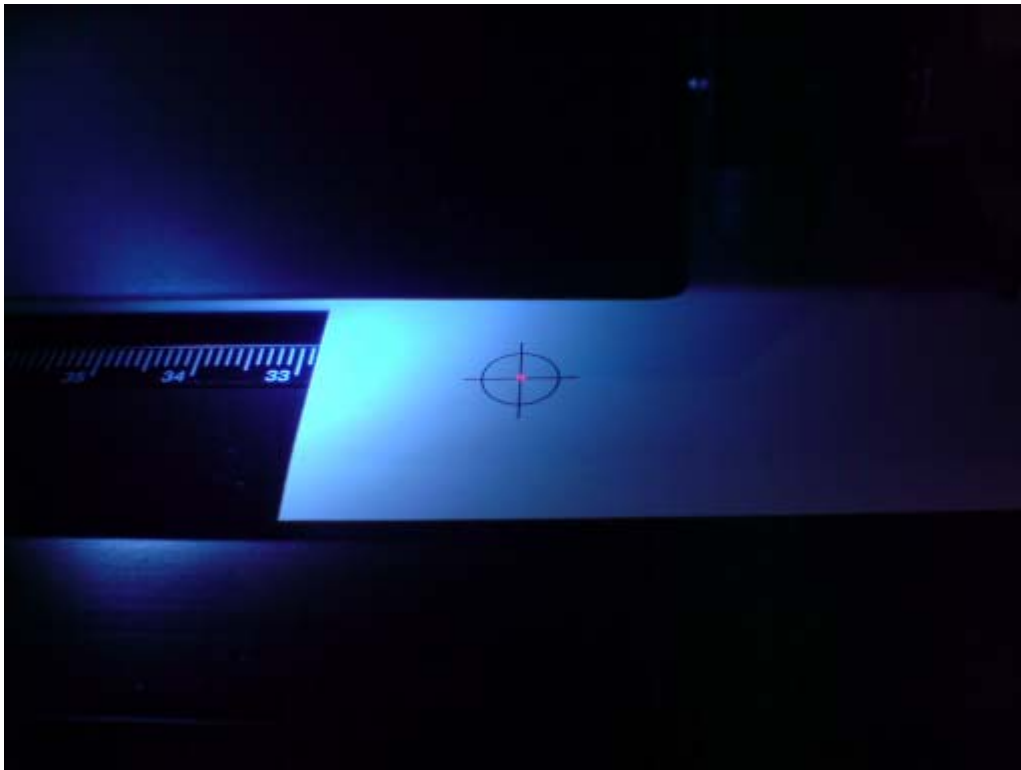
2. Another tip is to hold down the paper/vinyl against the machine stretching firmly towards you while aligning to get much more correct values.

FAQ

Q:

Do i need to have a laserpoint on my machine to use this feature?

A:

No, but it would help in order to make it more accurate. You can set the laserpoint offsets to 0 and align by using the pen/knife instead.

Q:

Which machines does this work on?

A:

It should work on all major brands that supports repositioning of the knife. We have personally tested these machines: USCutter LaserPoint , Redsail models, Foison models, HELO models, Heng Xing models , Jiachen DS models, Secabo models, Refine CutOK models, Roland models.

Q:

Where can I find more vector-images like the ones in the example-files?

A:

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http://www.clipart-design.com