

Work Example — Positioning the Workpiece

RSD-SUNMAX Series
SUNMAX LASER

About this document: This is an English translation of the Japanese original prepared by SUNMAX LASER for reference purposes. In case of any discrepancy, the Japanese original shall prevail. Specifications are subject to change without notice.

Work Example — Positioning the Workpiece

- This document assumes that the laser processing machine has been set up correctly.
- This document assumes that LaserWorkV6 (hereafter referred to as "LaserWork"), the control software for the RSD-SUNMAX series, has been installed.

1. About Positioning

When engraving, cutting, or performing similar work, positioning can be critical. If you are processing several products from the same data, you can simply prepare and use a positioning jig; but when processing a one-off item, positioning becomes important.

Careful positioning work is also required when the shape of the workpiece is fixed and any misalignment of the processing position would ruin the job. Positioning work means correctly setting the origin position of the processing data and the angle at which the workpiece is placed.

This work example covers processing a one-off item (or a small lot) when no positioning jig and no positional reference marks on the table are available.

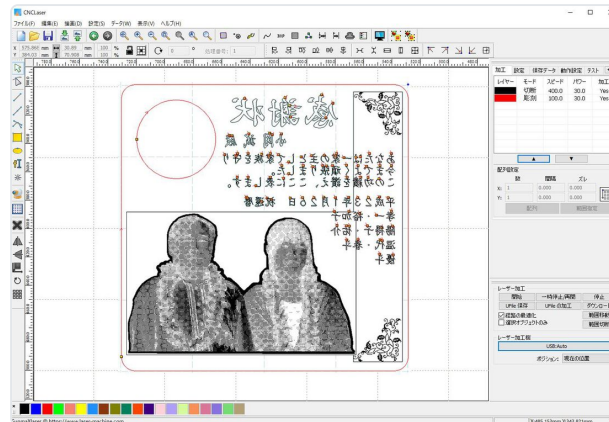
2. Processing Example

A crystal glass award plaque like the one shown below is processed. The material is a rectangle with rounded corners, with a circular analog clock at the upper right as viewed from the front. This material is engraved from the back ("reverse engraving"). The plaque holder is a separate part.



3. Creating the Data

Create the processing data. Because this is reverse engraving, the data is mirrored horizontally. The text and the photo were created in separate software applications and then imported.

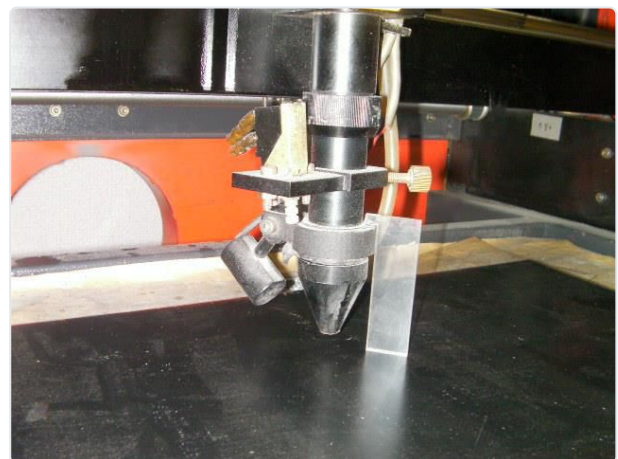


The outline of the material and the outer circumference of the clock are drawn on a layer separate from the engraving data (the red layer).

4. Using a Color Board

First, place a color board on the table and adjust the focus.

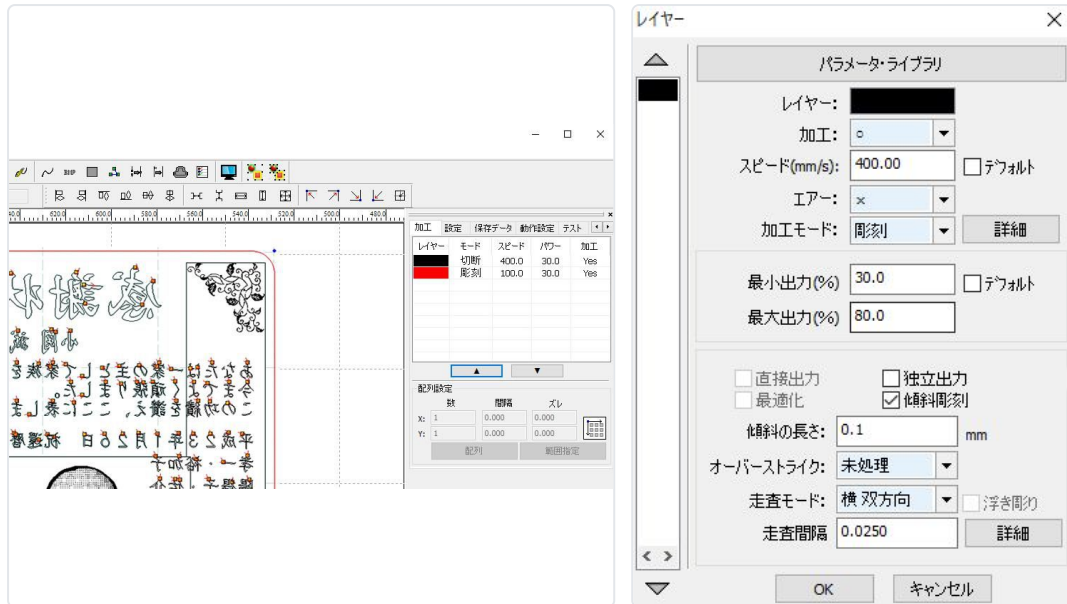
The color board is made of polystyrene foam, about 5 mm thick; black is the best color.



5. Cutting the Outline

In the LaserWork layer list, set every layer other than the material outline layer (in this case, the black layer) to no output.

Double-click the target layer in the layer list to open the layer dialog.



(Double-click the layer.)

Be sure to set the material outline layer (the red layer) to "Cut" mode. The speed and power settings depend on the material of the color board, but since all you need is a visible outline, the rule is fast speed and low power. Score the surface of the color board only lightly. If you engrave deeply or cut all the way through, positioning becomes difficult.

When the layer dialog appears, change Output from "O" to "×".

Then run the outline job.



The surface of the color board is only lightly scored.

Caution: After the outline has been drawn on the color board, do not move the color board. Even a slight shift will make accurate positioning impossible.

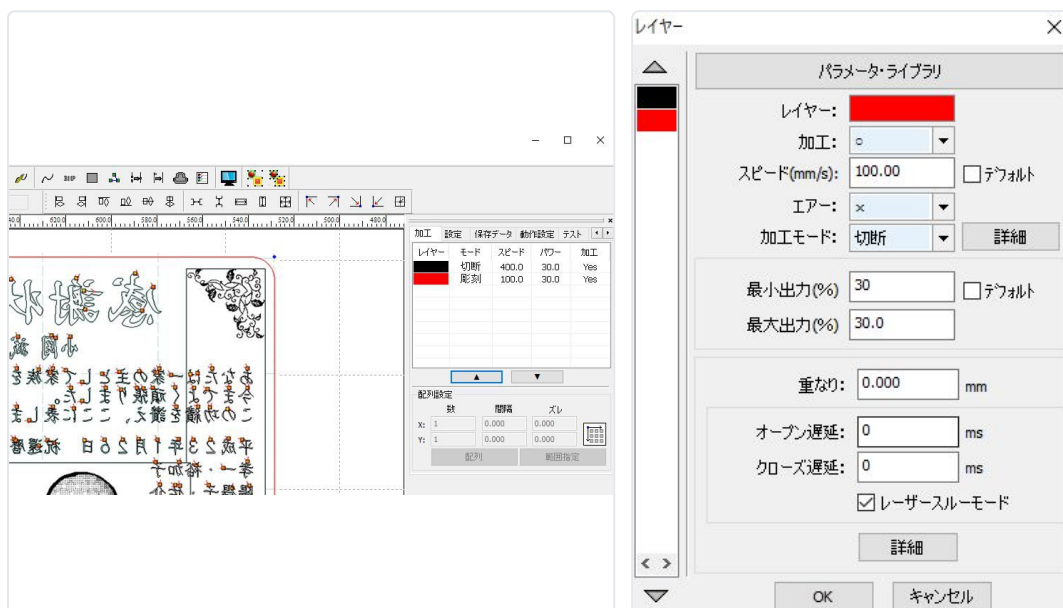
6. Placing the Workpiece

Place the workpiece on the color board, aligned with the outline. Any misalignment or tilt will cause problems in the finished result, so do this carefully.

Focus adjustment is also required.

7. Engraving

Uncheck the outline cutting data and check the processing data.



(Double-click the layer.)

When the layer dialog appears, change Output from "O" to "x".

Start the job.



