

## 1: MATERIAL

Please make sure that your chosen material is laser-cuttable. Various card- and paper boards and also plexi (GS) usually are no problem, however you should be aware that especially the lasercut of wooden products demands way more time. This is why we as a matter of principle don't laser wooden material thicker than 3 mm. It would be good to contact us before you buy your chosen material. Often cardboard material with less laser time can lead to similar or even better outcomes.

## 2: SIZES

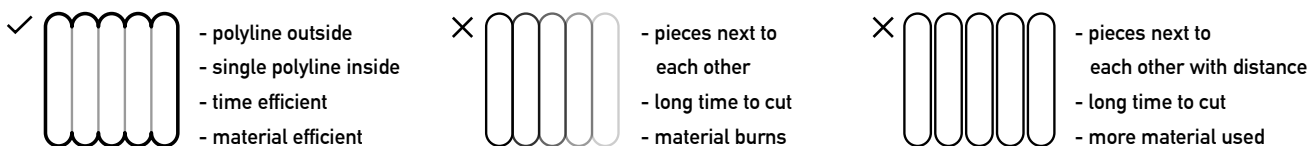
Please respect the maximum size of the laser 120 / 88 cm. Also make sure to count in a tolerance of 1 cm on all sides around your drawing, because the cutting frame cannot be adjusted precisely to millimetre. While generating your CAD drawing it is important that your unit is millimetre, otherwise the drawing will be in a wrong scale. Keep in mind that the laser burns approx. 0,3 mm of material away. This is especially important for puzzle like intermateable models.

## 3: LAYERS

In order to properly lasercut, we need a file with three different layers: The first layer should contain a frame that marks the material to lasercut, the second contains the objects to lasercut and the third layer should contain objects to be engraved. If you for example want to cut facade pieces, that contain windows, we would ask you to place the windows and the frame for the facade on two different layers. Thus we can first cut the inner objects (windows) and then the outer object itself (facade frame). The colour of the layers is not important, but you would do us a big favour if you used the same layers with many files.

## 4: DRAWING

To avoid any unforeseen problems while lasering, we would ask you to check your drawing again before exporting. What is important is that you connect single lines to polylines and delete double lines. Otherwise the laser has to position repeatedly on one object, which causes unaesthetic traces of smut or objects will be cut twice and then burn. In order to work material and time efficient, objects can be placed next to each other with a tolerance of 3 mm.



## 5: DXF EXPORT

The compatible file for lasercut is .dxf. Please make sure to choose the export option polylines, so line drawings will be transformed properly. Text objects usually can not be exported correctly and should be converted into polylines before, otherwise they can't be cut.

## 6: QUESTIONS?

Please inform us about the quantity and size of the boards you want to laser, just like the quantity of small objects. Often your own estimation differs with the actual laser time. Ideally you send us your dxf files so we can give you a raw estimation. Don't hesitate to contact us via [tutoren@colab.tu-berlin.de](mailto:tutoren@colab.tu-berlin.de) in case you have any question.