

think[box]

Laser Cutter (Epilog Legend 36EXT)

One Sheet: Designing A Box With MakerCase.com



There are many online tools available to automatically generate files for laser cut products. MakerCase.com is an excellent box-making resource which helps to streamline the design process.

This one sheet will walk through the process of designing a basic box with MakerCase.com. The numbers and settings used here have been tested by our staff, but feel free to experiment on your own.

These instructions presume you are familiar with using the laser cutter. If not, visit the [think\[box\] website](http://think[box] website) and find the tutorial for the laser cutter.

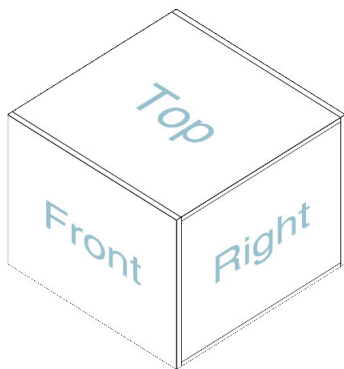
1. Make preliminary design decisions about the box you would like to make. Consider the dimensions and material. Keep this information at hand for reference.

Whenever possible, gather your materials beforehand and verify their dimensions. There are calipers, rulers, and measuring tape available for use in Think[Box]'s black toolchests.



0.06

2. Visit MakerCase.com. On the left hand side are the parameters and inputs you will use to build your box. On the right will be a dynamic rendering of your box design which you can rotate by clicking and dragging.



3. Under *Case Dimensions* on the left select your preferred unit of measurement and enter your desired height, width, and depth. Be sure to specify whether these dimensions are for the inside or outside of your box.

Case Dimensions

Units

Inches

Box Width

4

Box Height

4

Box Depth

4

Are these inside dimensions or outside dimensions?

Outside Inside

4. Next you must specify the thickness of your material. Select the value from the dropdown menu or click *Custom Material Thickness* and enter a value into the dialog box. **Note that thickness must be in inches.**

Material Thickness

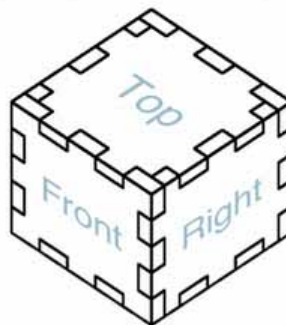
1/8 (0.118")

Custom Material Thickness

5. Choose the style of joint for your box. **Finger joints are recommended as the easiest to put together and glue.** T-slots use screws and bolts as fasteners and the website will ask for those sizes.

Edge Joints

Flat Finger T-Slot



6. Click *Generate Laser Cutter Case Plans* to continue.

Generate Laser Cutter Case Plans

Save Model Load Model

7. Enter the following settings in the different tabs presented by the dialog box and click *Download Plans* when complete:

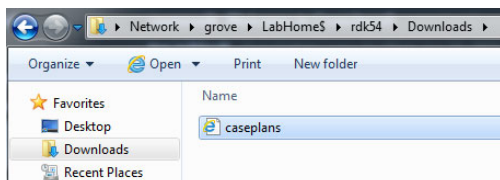
- **Margins:** 0.060" for both horizontal and vertical
- **Vector Cutting:** 0.001 line width, #000000 color
- **Text Engraving:** Default
- **Laser Cutting Kerf:** Default

Download Plans

8. Your browser will download a file named *caseplans.svg* with your design. Open this file in CorelDraw to make changes, add text, etc.

NOTE: You can't just copy-and-paste the image from your browser, because that will pull the job in as a bitmap instead of a vector file. You **MUST** open the SVG file directly in CorelDraw.

When you are ready, proceed to run this job as usual.



9. When your pieces are finished, assemble your box! Ask a teaching assistant for glue and clamps if desired.

