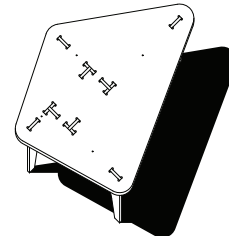


**A1FAB**

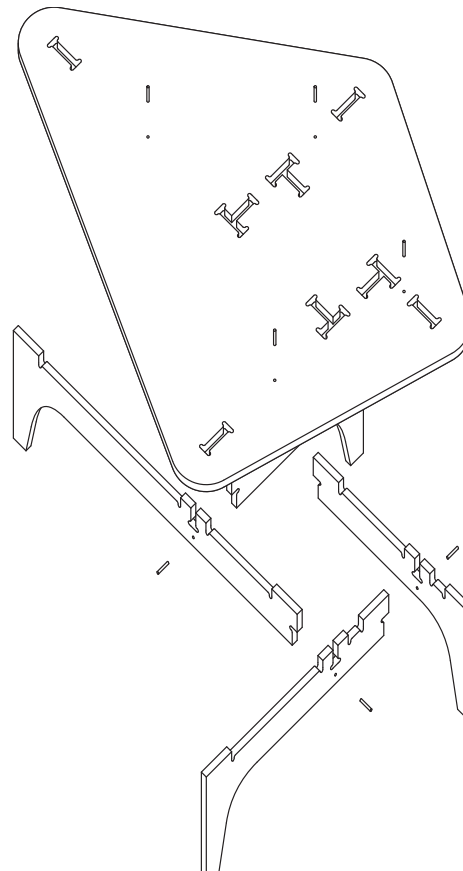
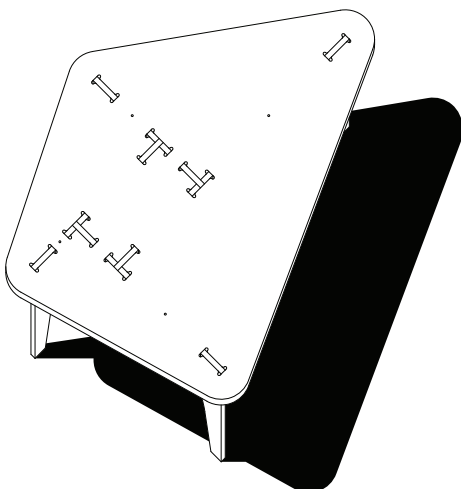
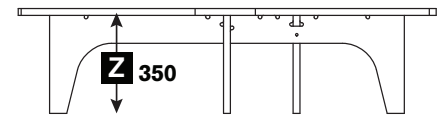
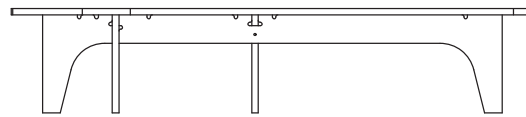
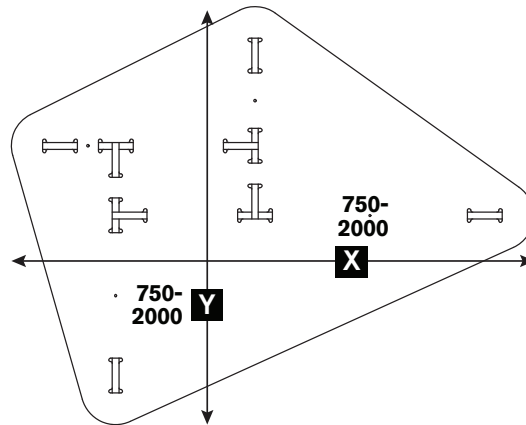
# A1FAB



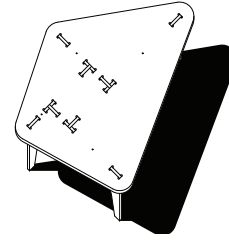
Cat in  
Bag ii  
Table

The Cat in Bag ii Table is a low freestanding table that is comprised of 5 interlocking pieces, its loads and forces are resolved with a very simple torsion box. The table works well as a stand-alone piece, and aggregates or flock to form larger configurations.

The Cat in Bag ii can be cut from a single sheet of material. The table is designed to be transformed shape to serve different contexts and needs.



# A1FAB



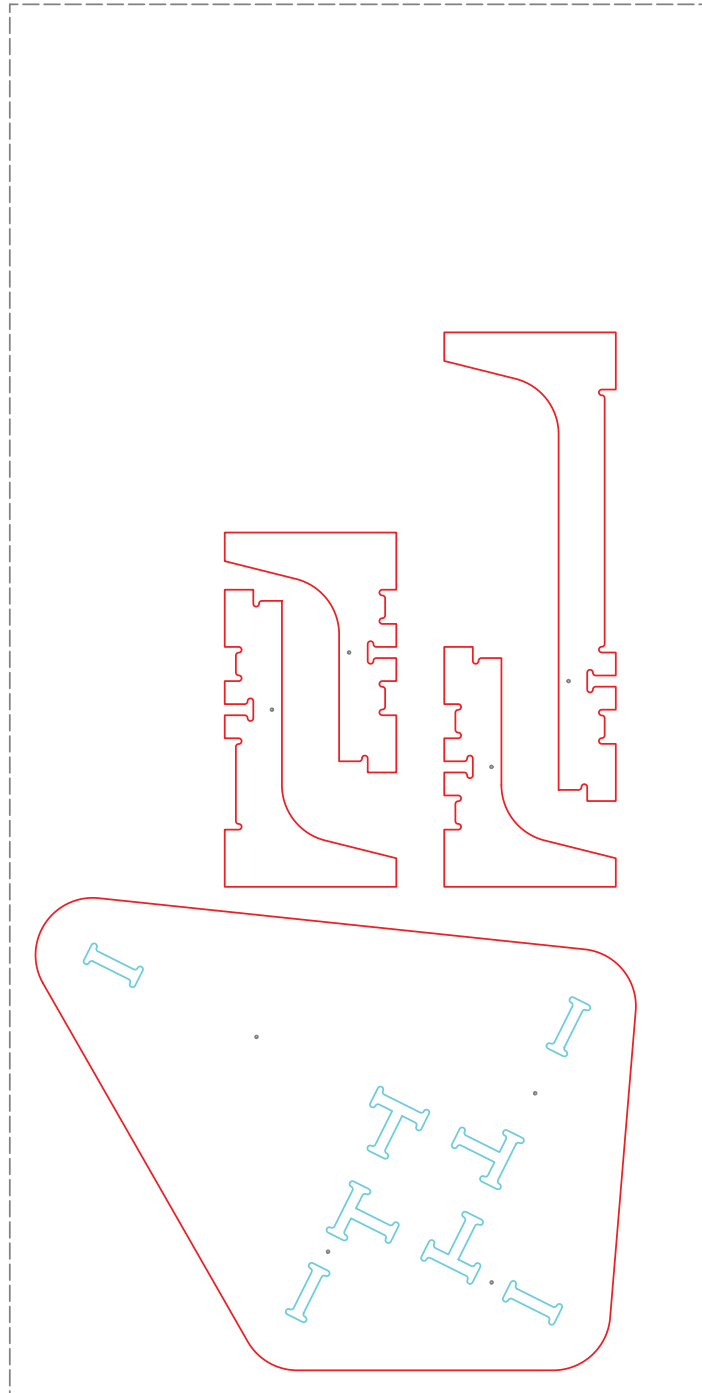
Cat in  
Bag ii  
Table

## DIGITAL CUT FILE

Cut file provides 1 table that can be cut from 1 sheet of 18.5 (3/4") material.

### KEY

- Red Lines = outside cuts
- Cyan Lines = inside cuts
- Green Circles = drilled holes (these can be excluded, if desired)



These suggestions, which come from our research experience, are our best effort to share insights about the fabrication process. They are by no means comprehensive; we always welcome your feedback.

### PLANNING YOUR MATERIALS

- Simpler AtFAB furniture objects require a single sheet, while the larger complex pieces require 6 or more. We advise purchasing a 20% material surplus for testing.
- Cut files provided are scaled for 18.5mm (3/4") Hardwood Veneer Plywood (we used Home Depot's PureBond successfully in many of our prototypes). The larger storage objects will require 1/2" sheet material for shelves and drawers.
- Consult sheet material supplier and manufacturer instructions for finishing prep. Different sandpaper grits for edges and for faces of lumber products is useful, and wrapping sandpaper around dowels is helpful to sand the inside of the curved sniglets.
- If sealing, coating, painting or finishing your furniture piece in some way, consult manufacturer instructions for finishing with oils, waxes, paint and sealers.
- AtFAB's design using slots, tabs and notches makes objects easy to assemble with a couple of people. Moving quilts to protect the pieces and your floor are handy.
- Blue painters tape is especially helpful in holding pieces together as you assemble your object.
- For increased durability, we recommend securing joints with dowels. The cut files provide these dowel holes for the CNC to pre-drill into the face of the furniture pieces.

- If securing joints with dowels, a hand drill and 1/4"x1 1/2" pre-cut hardwood dowels of oak, maple or walnut have worked well with our plywood prototypes. Ask your material supplier for recommendations.
- The pre-drilled holes can accommodate mechanical fasteners, and they can be eliminated altogether if you prefer to glue pieces together.
- CNC machines require their own supplies, consult your fabricator to find out recommended bit sizes for CNC routers, masking to protect your materials, and anything else the machines need.

### FABRICATION HINTS

- DXF cut files are provided. After importing into the CNC Machine's proprietary CAM software, check that polylines remain continuous and closed, and inflected sniglet curves are consistent with the drawing included in this document.
- Every AtFAB object has inside cuts, outside cuts and drilled holes. These are separated by layers in the DXF file and noted on the accompanying sheet in this document. Cutting on the appropriate side of the line is critical to ensure tabs and slots fit together.
- Inside cuts (especially slots) may leave a piece of waste material that can be vibrated out of place and interfere with cutting. Secure this piece or pause the machine to remove it on the final pass.
- A lower cutting speed and greater number of passes produce a more refined edge that requires less sanding/filing.

### USING THE TEST PIECE

Before proceeding with your entire job, test your sheet material and machine settings to ensure AtFAB pieces fit together as intended:

- Using your 20% material surplus, cut the test-piece provided in AtFAB\_test.dxf
- Multiple settings can be evaluated by cutting multiple test pieces and "bracketing" toolpath offsets, cutting speeds, bit sizes, etc with each piece.
- Finish the test piece(s) as you would your furniture object. Evaluate how the slots and the tabs of the finished test pieces fit together.

A successful fit using 18.5 (3/4") plywood allows 1-6 business cards to easily pass between the joints. If not:

- Measure the thickness of your sheet material in several places to see if it matches the slot dimensions in the cut files.
- If your material thickness is greater than 18.5 (3/4"), CAD files can be scaled by up to 1-2% to adjust for your actual material thickness.
- Alternatively, you can incrementally increase bit diameter settings in your CAM software without changing your actual bit. This will enable the machine to remove slightly more material as it cuts on the same toolpath.
- Do not offset the CAD polylines to make fit adjustments. This will make AtFAB slots smaller and tabs bigger, ensuring ill-fitting pieces.



# Terms & Conditions

## TERMS & CONDITIONS

All AtFAB designs, information and cut files are prepared, prototyped and tested to the best of our abilities, with the sincerest intention for a successful outcome.

While it is our goal for the technical information contained in the downloaded AtFAB files to yield a finished furniture object that brings you maximum utility and enjoyment, the use of the downloaded information must be combined with your own due diligence.

By downloading any AtFAB file, you agree to the following:

- AtFAB is not liable for any failure of actions taken by you, or taken by others on your behalf, to produce a furniture object.
- You expressly agree to hold AtFAB, its designers, and its employees, harmless for any property damage, personal injury and/or death, or any other loss or damage that may result from your use of the digital information and designs provided.
- You further agree that the use of this design and all content contained herein are at your own risk and there is no warranty expressly made herein.
- You agree to indemnify AtFAB, and its designers and employees, from all and any damages, obligations, losses, liabilities, costs or debt, and expenses (including but not limited to attorney's fees) arising from use of AtFAB designs and derivative designs that are allowed under Creative Commons License.

## CREATIVE COMMONS LICENSE

AtFAB designs are licensed under a Creative Commons Attribution-Non-Commercial Share Alike 3.0 Unported License. Under this license you are free to Share (copy, distribute and transmit the designs) and Remix (adapt the designs) under the following conditions:

- You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work). In the case of AtFAB, score, etch or appliqué the AtFAB logo on your finished piece (logo and options are shown in the accompanying information sheet and cut file).
- If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one. With the understanding that any of the above conditions can be waived if you get permission from Filson and Rohrbacher.
- For any reuse or distribution, you must make clear to others the license terms of this work. The best way to do this is to reference CC BY-NC-SA 3.0 Complete terms of this license can be found on [creativecommons.org](http://creativecommons.org)

## NON-COMMERCIAL USE ONLY

All AtFAB Work (designs, technical drawings, digital cut files, instructions and other supporting material) are Copyright of Filson and Rohrbacher 2011.

The Creative Commons License is not applicable for commercial uses of AtFAB (either in commercial contexts or by manufacturing the designs with the intention of selling them).

If you would like to use these designs or variations of them in a commercial context, Filson and Rohrbacher would be delighted to provide commercial licensing arrangements for the designs. Please contact us for these licenses, as well as customization, fabrication or other services that can deliver AtFAB to the full benefit of your commercial enterprise.

## CONTACT

[info@filson-rohrbacher.com](mailto:info@filson-rohrbacher.com)  
[www.filson-rohrbacher.com](http://www.filson-rohrbacher.com)