



Dr. Burmeister's Map Board Instructions

Things you'll need: (1) **Masonite hardboard panel** for back and (2) **Plexiglass** (aka. ACRYLITE®, Lucite & Perspex) cover. Have pieces cut to match. 12x18" will easily accommodate 11x17" paper. Masonite board is critical for strength. Make sure Masonite is at least 1/8" thick and if possible, get a piece that has one face covered in smooth white formica (excellent for drawing on). Plexiglass should be $\geq 3/16$ " thick – anything thinner will crack too easily. (3) **Roll of good quality Duct tape** (e.g., Gorilla brand). Cheap tape will quickly fall apart into a sticky mess. (4) **Large binder clip**. (5) **Good pair of scissors**.



Finding materials: single pieces of Masonite and Plexiglass can be purchased from local hardware stores. While Plexiglass is available in a range of precut sizes, it is generally necessary to buy a larger Masonite sheet and have it cut down to match the dimensions of the Plexiglass sheet you select. When making **larger numbers** of map boards, it is possible to order precut panels of Plexiglass (approx. \$8 each) and Masonite (approx. \$2 each) from art supply vendors:

Nasco: [Masonite Painting Panel \(12"x18"x1/8"\)](#)

Delvies Plastics: [3/16" Clear Plexiglass Sheet \(cut to same size\)](#)

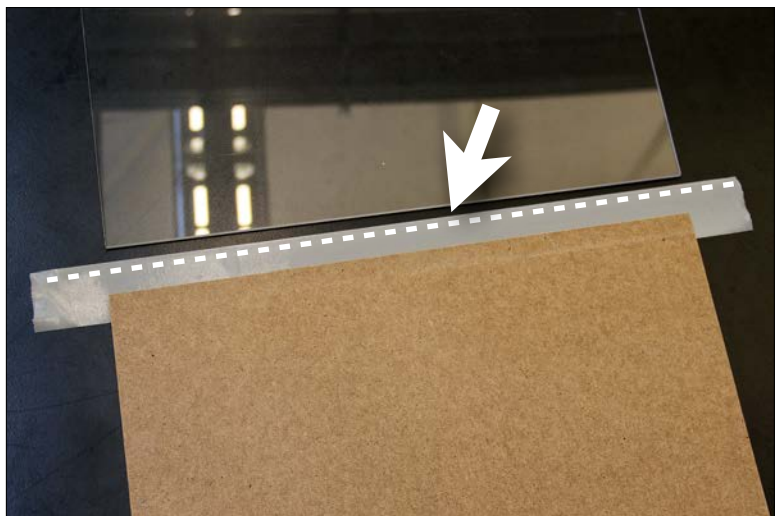


Step 1: Peel protective paper backing off of plexiglass sheets.

Step 2 - Making the hinge: Tear a piece of duct tape that is about 4-5" longer than the length of the Masonite board. Lay the tape flat, sticky side up on a table.

Decide which side of the Masonite will be your working surface (e.g., smoothest, faced with formica, etc.). The working surface will be the "FRONT" side of your board.

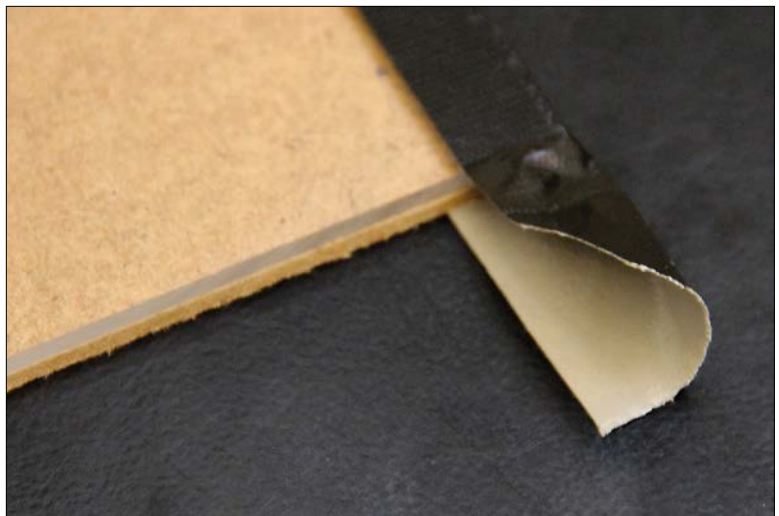
Lay the edge of the **BACK SIDE** of the Masonite board onto the tape – position the edge of the board a little below the centerline of the strip of tape (**ARROW & DOTTED LINE**).



Step 3 - Line up the covers: Place the sheet of Plexiglass on top of the Masonite board and align the edges.

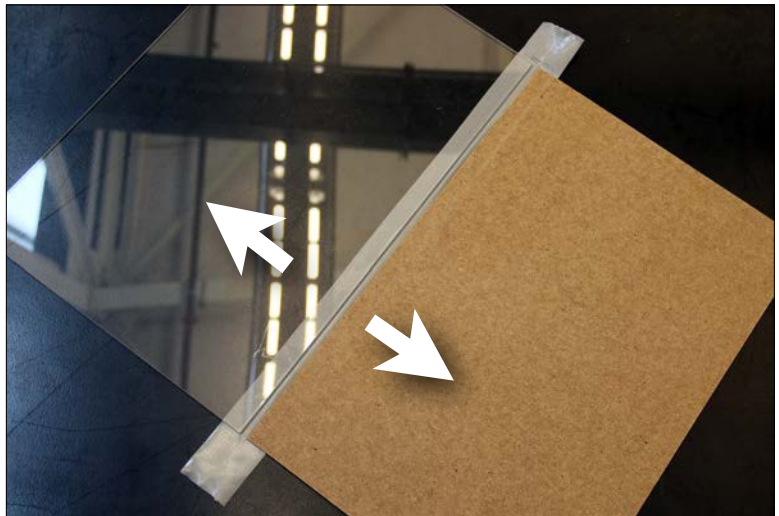


Step 4 - Fold the hinge over: Fold the tape attached to the back of the Masonite board up and over the top of the Plexiglass sheet.

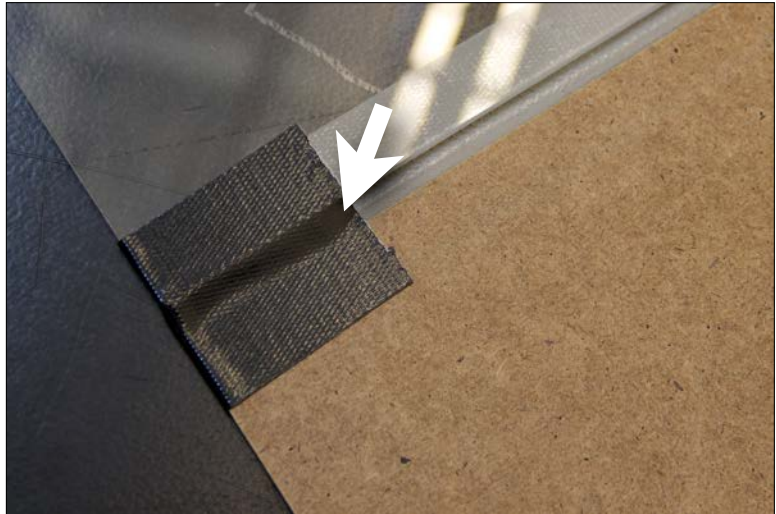


Step 5 - Stretch the tape: Open up the map board and lay it completely flat. Make sure to stretch the two halves as far apart as possible.

This step is critical because it will help ensure that there is enough tape across the hinge to allow for the board to fully close.



Step 6 - Fold hinge tape edges older: With the the two halves spread as far apart as possible, fold the two overhanging edges over and press the tape down into the space between the two boards (ARROW).



Step 7 - Tape inside of hinge: Cut a piece of tape to fit inside the hinge.

Try to minimize how much this tape overlaps with the tabs folded over in Step 6 (WHITE ARROW).

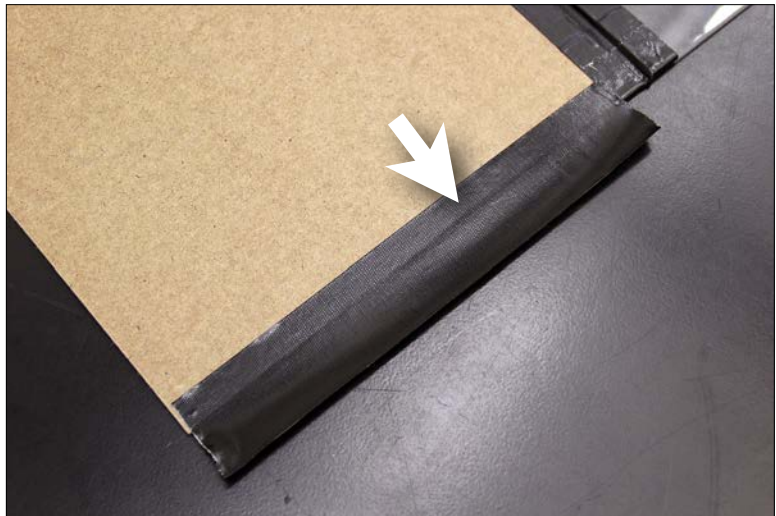
When placing the tape into the hinge, press the into the space between the covers before smoothing (YELLOW ARROW).



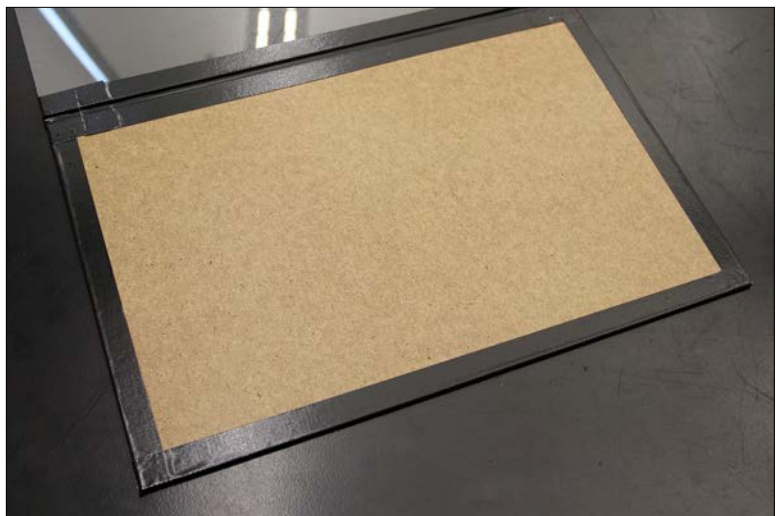
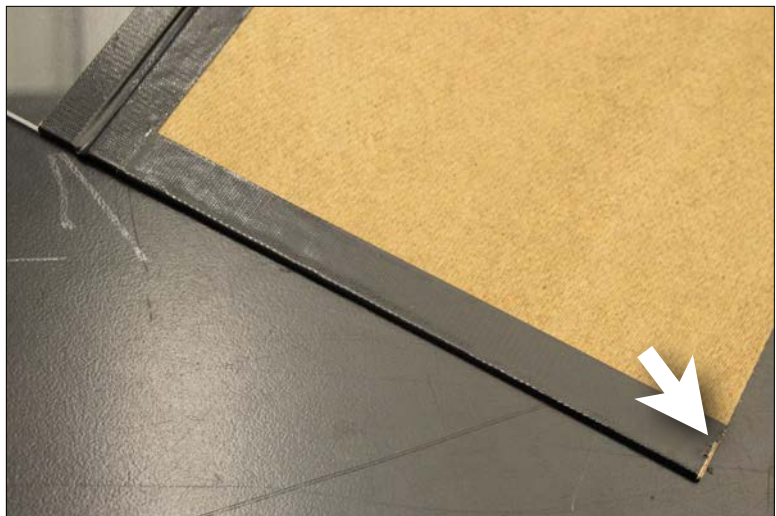
Step 8 - Cover edges with tape: Cut strips of tape to fit along edges. Apply less than 0.5" of the strip of tape to the **INSIDE** of the Masonite first (**ARROW**), and then fold the remaining tape over onto the back of the board.

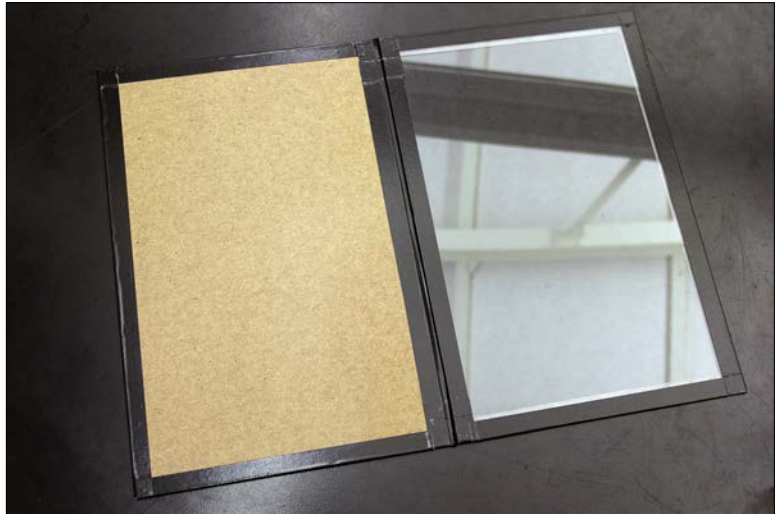
Note: Applying too much tape to the inside (working) surface of your board will minimize your work area... writing on paper over duct tape will cause the paper to tear.

Repeat this step along all remaining edges of Masonite board and Plexiglass sheet.



When taping the edges, cut pieces to reach all the way to the corners, but not longer (**ARROW**).





Step 9 - Reinforce corners: It's a good idea to reinforce the corners to prevent damage to the Masonite and the Plexiglass.

Tear 4" strips of Duct tape in half as shown.



Center the 1/2 wide strip of tape across an INSIDE corner of the Masonite board.

Make sure to allow 1/8" to 2/8" of tape to overhang the corner (ARROW).



Turn the board over and fold the overhanging tabs on to the BACK of the board.



Repeat this step for all four of the outside corners of your map board.



Binder clips: A binder clip is a nice way to keep the board closed & to protect your maps.

Maintenance: With time and use, the duct tape on your board will likely become frayed and begin to peel away. Simply remove the damaged tape and replace as necessary.

