

# Tray/Box Making Procedures

Updated 1/2022 by Molly Winslow

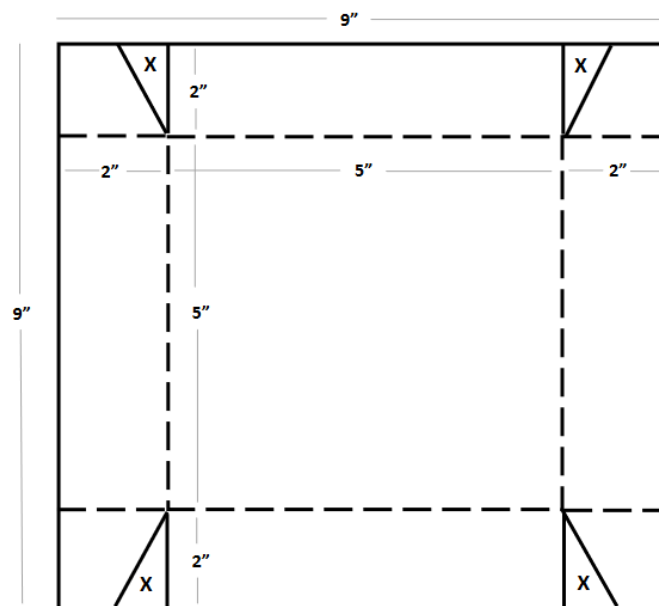
Trays and boxes can be used for many different types of objects and can be modified to fit the object's needs. They work well for objects with multiple pieces that need to be kept together, objects too fragile to handle, objects that need to be covered, or flexible pieces like textiles and basketry. You can add lids, drop sides, lift boards, or interior mounts and supports. These are procedures for the most basic tray.

## Supplies Needed:

- Blue board or coroplast
- Hot glue gun and archival glue sticks
- T-square and ruler
- Pencil
- Binder clips or clamps
- Paper for sketching out dimensions
- Large embroidery needle or awl
- Thick thread or twill tape

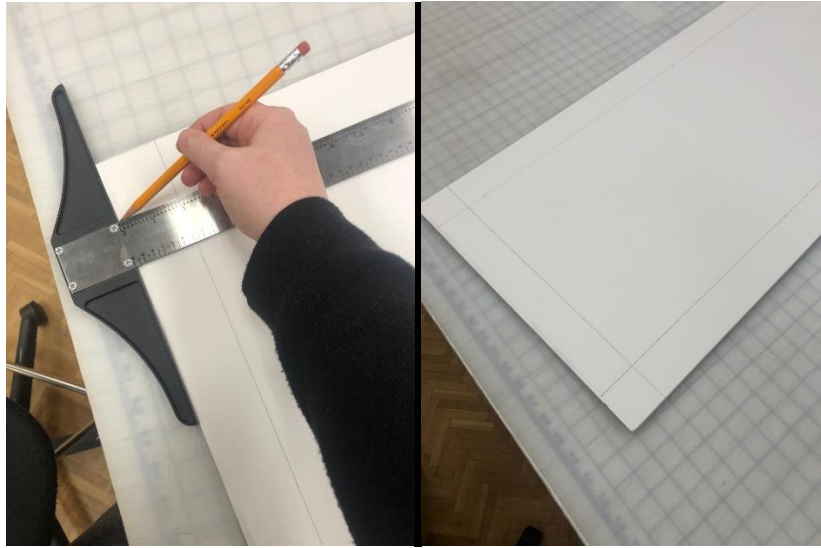
## Step-by-step Procedures:

1. Determine tray dimensions. The object should be fully contained with no parts hanging over the sides. But it should not be so big that valuable shelf space is wasted.
2. Next determine the height of the sides of the tray. Rarely should the tray be less than 1.5" high, unless it is a very small tray. For larger trays 2-3" is ideal.
3. Use the following method to determine the size of board to cut and sketch it out on scrap paper. Add the width of the tray, plus the height x 2 and repeat for the length. For example if the tray is 5"x5" with a 2" side then  $5+2+2$ =width and  $5+2+2$ =length. So you need a piece of board that is 9"x9". See the diagram below.

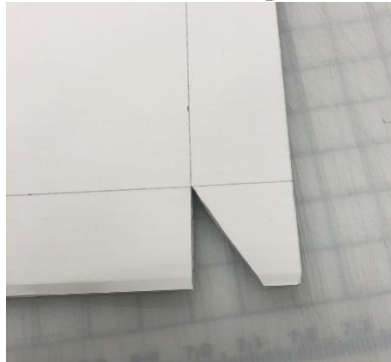


4. Select the appropriate materials based on the size and weight of the object. For heavy or large objects opt for sturdier materials such as coroplast or double walled blue board.

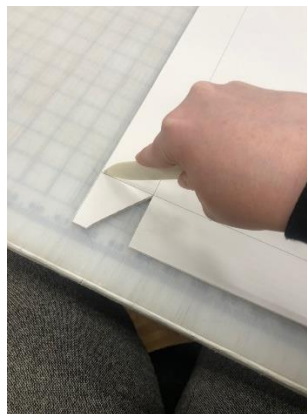
5. Cut the board to the appropriate size. When possible, have the flutes of the board run along the longest side of the tray to add structural stability.
6. Use a ruler and a t-square to measure the height of your sides in from each edge of the board, drawing lines to match the diagram above.



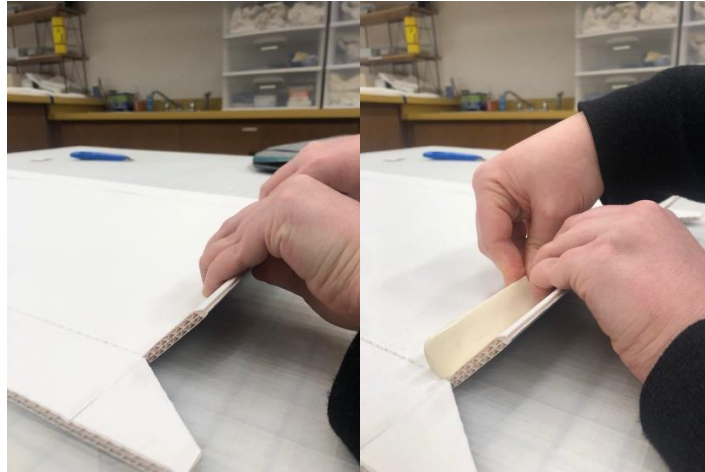
7. Using a box cutter, cut along the solid lines in the corners (see diagram) this creates a flap to hold the sides together. Choose the same side for each end. Then cut at an angle (solid line on diagram), to remove the bottom of each flap. This allows for cleaner corners.



8. Using a box cutter or bone folder, score the rest of the lines you have drawn (dotted lines on diagram). This will make it easier to fold. Thicker materials require deeper scoring and are harder to fold.



9. Fold inward along each scored line (outward if using coroplast), the bone folder can help stabilize the board while folding.



10. Glue the corners to the sides and use binder clips or clamps (depends on how stiff the material is) to hold the sides while the glue dries.



11. If there is a chance the glue may fail, use either an awl and twill tape (for thicker materials) or a large embroidery needle and thick thread to sew or tie in reinforcements.



12. Line the tray with whatever cushioning materials or custom mounts that are needed and label the tray with the object number.