

THE MINITIME MACHINE PRESENTS

HOW TO

A SERIES OF
PROJECTS FOR
THE BEGINNING
MINIATURE MAKER

APRIL 2013: PORCH SWING



Materials and Supplies:

3/16" wood timber - You will need approximately 27" for this project

skinny craft sticks (5 3/4" x 1/4") - You will need 16 sticks

fine grit sandpaper

miter box and saw

Tacky glue

4 tiny screw eyes

mini hand drill

1/8" jute twist cord (or similar cord)

Super glue

invisible tape

Instructions:

Prepare wood for project

To make it easier to keep the parts for each piece of the bench together you can sort the pieces into the groups listed in parenthesis.

Cut the timber to the following lengths:

- $2 \frac{1}{4}$ " = cut 2 (for side frame, group 1)
- $1 \frac{5}{16}$ " = cut 2 (for side frame, group 1)
- $\frac{3}{4}$ " = cut 2 (for side frame, group 1)
- $4 \frac{5}{8}$ " = cut 4 (2 for seat, group 2; 2 for backrest, group 3)

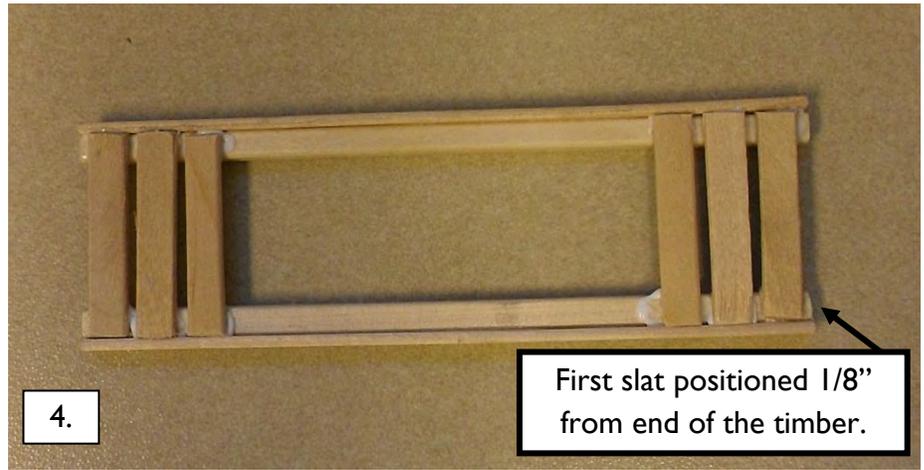
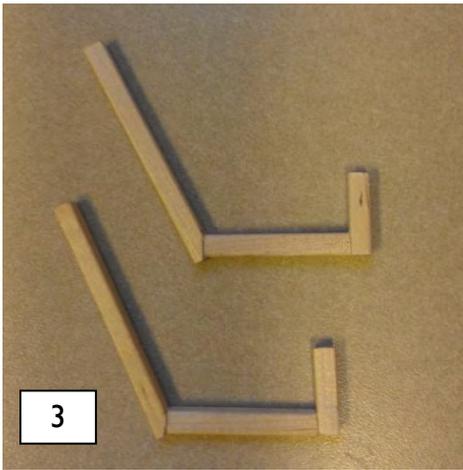
Cut the skinny craft sticks to the following lengths:

- $1 \frac{7}{8}$ " = cut 2 (for side frame, group 1)
- $1 \frac{5}{16}$ " = cut 16 (14 slats for seat, group 2; 2 for side frame, group 1)
- $1 \frac{1}{2}$ " = cut 14 (slats for backrest, group 3)
- $4 \frac{5}{8}$ " = cut 4 (2 for seat, group 2; 2 for backrest, group 3)

Build side frame (Use group 1 pieces.)



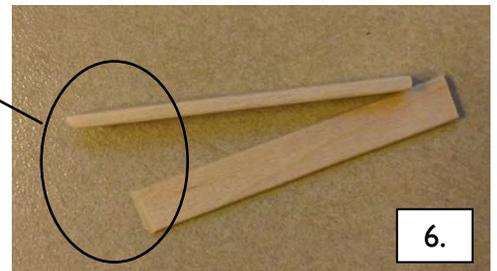
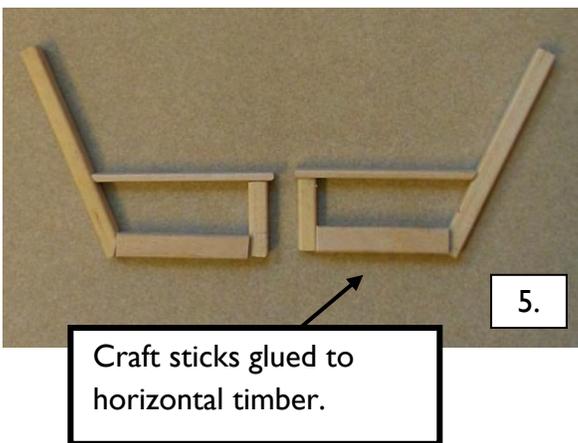
In order to have a reclined backrest you will need to angle the ends of the two $2 \frac{1}{4}$ " long timbers. Measure $\frac{1}{16}$ " along the width of each timber and make a small mark. Measure $\frac{3}{16}$ " from the end of each timber along the length and make a small mark. See illustration 1. Draw a line connecting the two marks. Cut along this line and sand the cut edges. See illustrations 2.



Glue the timbers you just angled to the ends of the $1\ 5/16$ " pieces of timbers. Then glue the $3/4$ " timbers (which will be the armrest supports) to the opposite end as pictured in illustration 3. Set these pieces to the side and wait for the glue to dry.

Create swing seat (Use group 2 pieces.)

Make the front and back seat rails of the swing using two $4\ 5/8$ " craft sticks and two $4\ 5/8$ " timbers. Apply glue to the length of one timber and glue a craft stick to it. Repeat with remaining timber and craft stick (Note: The craft stick is wider than the timber and will overhang along the length of the timber.) Lay the seat rails parallel and approximately $1\ 5/16$ " apart from one another. Beginning on both ends of the rails, glue the seat slats between the rails butting the ends of the slats up to the craft stick overhang. Position the first two slats approximately $1/8$ " from the end of the timbers. See illustration 4. Continue to glue the remaining slats two at a time working from the ends toward the center of the seat. Adjust the spacing between the slats as you go. (Tip: Clean up any excess glue with a toothpick.) Set to dry.

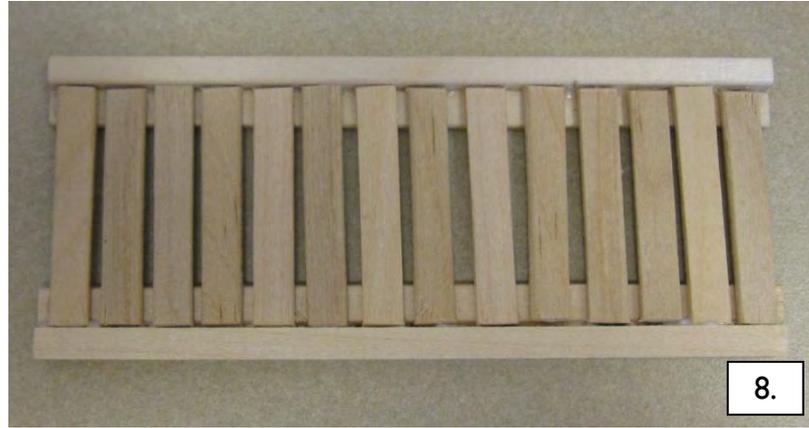
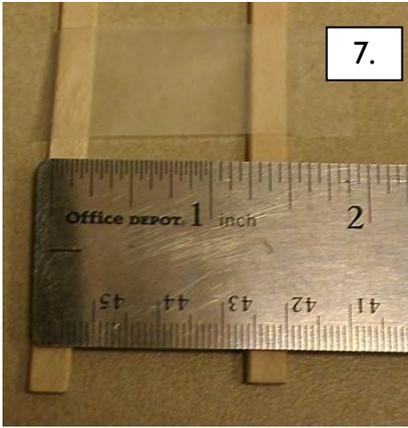


Finish side frames (Use remaining group 1 pieces.)

Lay the side frames on your work surface with the $3/4$ " timbers facing each other and glue the $1\ 5/16$ " crafts sticks on top of the horizontal timbers. See illustration 5. To make the armrests, sand one end of each $1\ 7/8$ "

craft sticks at an angle so that you can glue it flush to the angled timber of the side frame. See illustrations 6. Apply glue to the top of the $\frac{3}{4}$ " timbers and to the sanded ends of the armrests and attach one armrest to each side frame. See illustration 5. Set to dry.

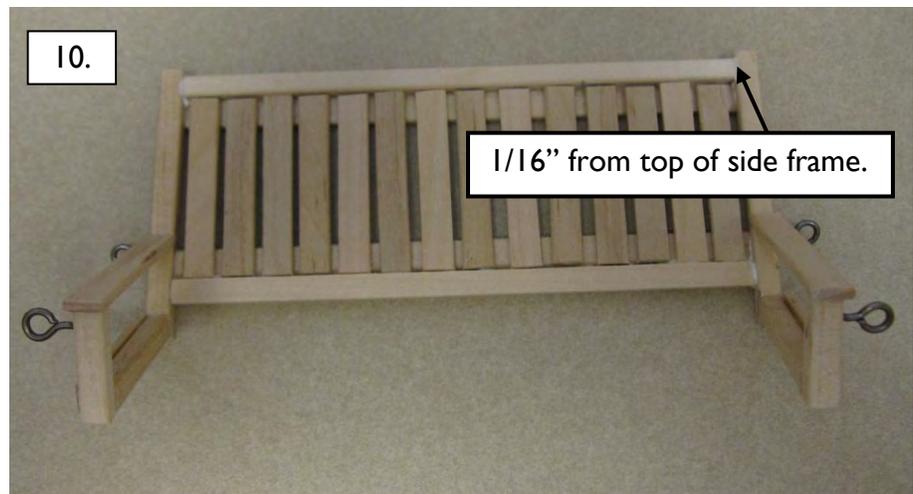
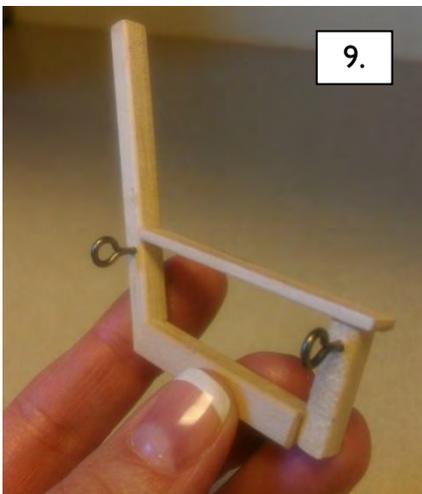
Build backrest (Use group 3 pieces.)



Lay the two remaining $4 \frac{5}{8}$ " craft sticks parallel to each other. Measure a distance of $1 \frac{1}{2}$ " between the sticks and tape the sticks to your work surface to keep them from moving. See illustration 7. Glue the fourteen slats on top of the frame supports. Glue two at a time working from the edge toward the center as you did with the seat slats. Remove the tape after the first couple of slats are secured to the frame. Allow the slats to dry before moving on to the next step.

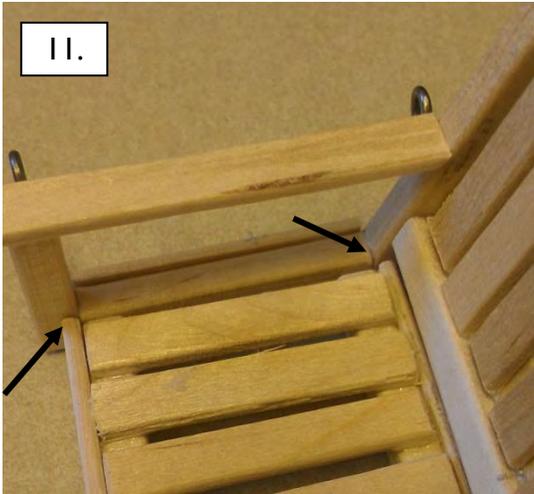
Apply glue to the length of each of the $4 \frac{5}{8}$ " craft sticks and ends of the backrest slats and attach the remaining $4 \frac{5}{8}$ " timbers to the upper and lower sides of the backrest. See illustration 8.

Assemble Swing



On both side frames, make a pencil mark on the armrest support and backrest support $\frac{1}{8}$ " below the armrest. Use your mini drill to make pilot holes at the marks. Screw the eye screws in place. The holes of the eye screws should be in a vertical position. See illustration 9.

Glue the backrest to the side frames. The top of the backrest should be 1/16" from the top of the side frame. See illustration 10. Once the glue has *partially* dried move on to the next step.



Apply glue to the ends of the seat timbers and craft sticks. Gently slide the seat between the arms of the chair positioning the front and back seat timbers just inside the arm rest support and back rest support timbers. The arrows in illustration 11 point out the correct positioning of the seat. Set the swing to dry.

Cut four 12" lengths of jute cord. Thread one cord through one screw eye. Fold the tail of the cord up approximately 1/2" and put a drop of superglue on the cord. Pinch the tail of the cord against the glue and hold it until the tail is securely glued to the cord. Repeat thread each screw eye with a cord. Hold the two cords on the right side of the seat together and straight up centered on the armrest. (The front cord should be slightly longer than the back cord allowing the seat to hang level.) Knot the cord together approximately 6" above the armrests. Trim away excess cord above the knot. Repeat on left side cords. You can hang your swing on your dollhouse porch or from a miniature tree branch.