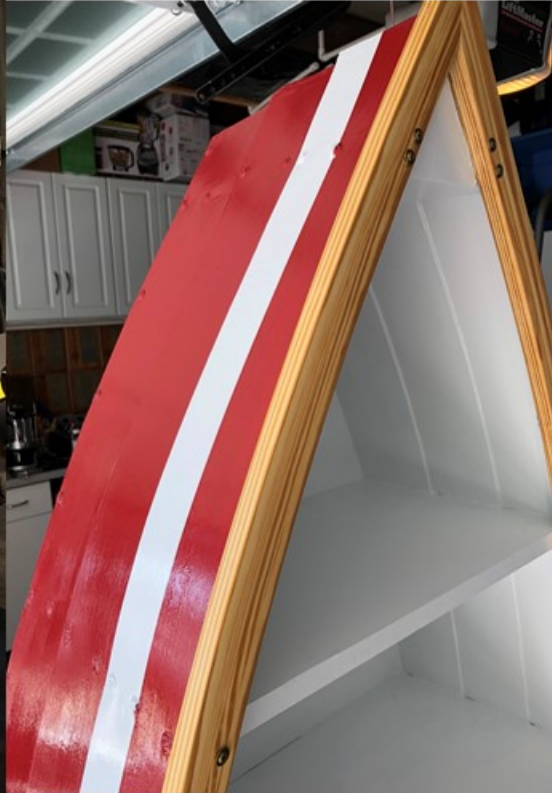


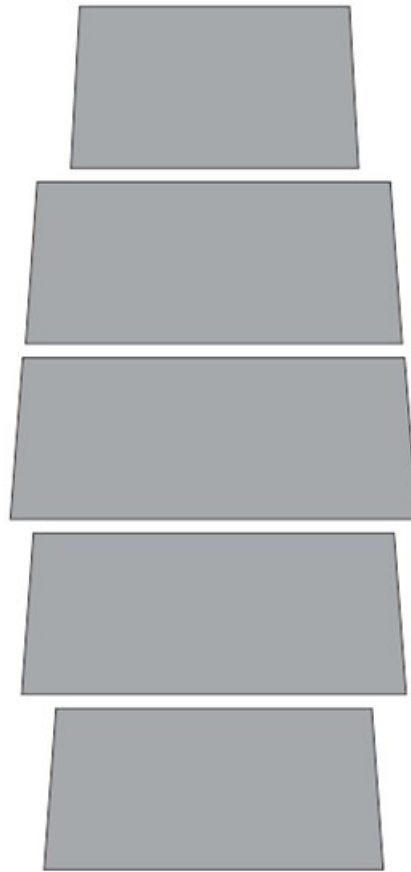
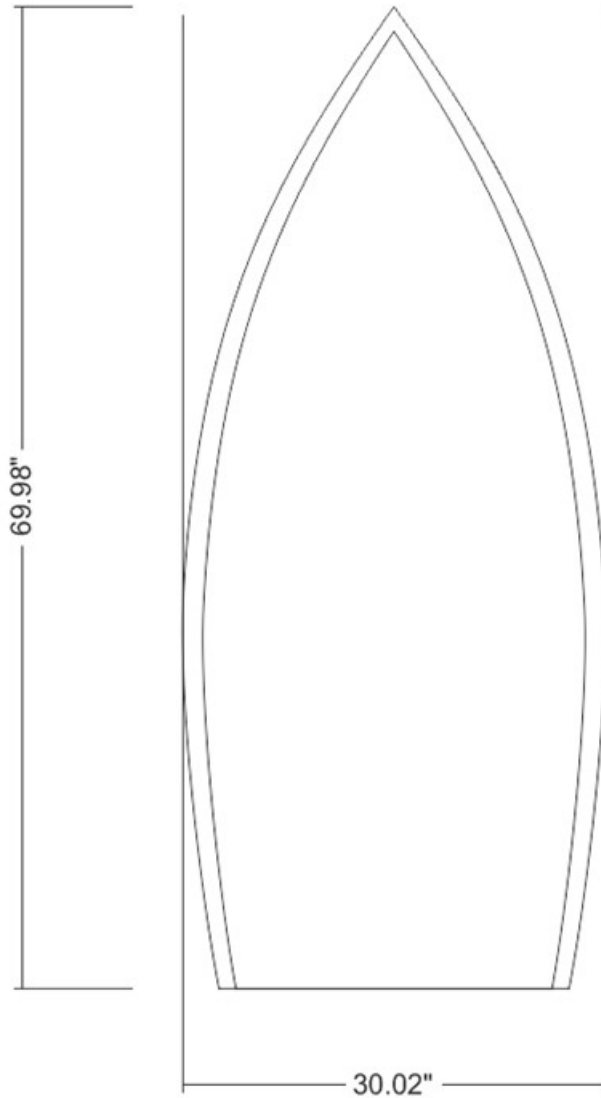
# Row Boat Book Case



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# Boat Bookcase

## Design Phase



## Scale model to test design assumptions



## Material List

- 1 - 4'x8'x  $\frac{1}{2}$ " sanded both sides plywood
- 1 - 4'x8'x  $\frac{1}{8}$ " sanded Both sides plywood
- 1 - 11  $\frac{1}{2}$ " x 8' x  $\frac{1}{2}$ " melamine shelf board
- 1 -  $\frac{1}{2}$ " X 48" dowel
- 8 -  $\frac{1}{4}$ " x  $\frac{1}{2}$ " x 7' Pine trim latic
- 1 - 11  $\frac{1}{2}$ " x 8' x  $\frac{3}{4}$ " Pine board
- 1 - 11  $\frac{1}{2}$ " x 6' x  $\frac{3}{4}$ " Pine board
- 1- bottle wood glue
- Sand paper
- Paint

## Cut Out full scale template

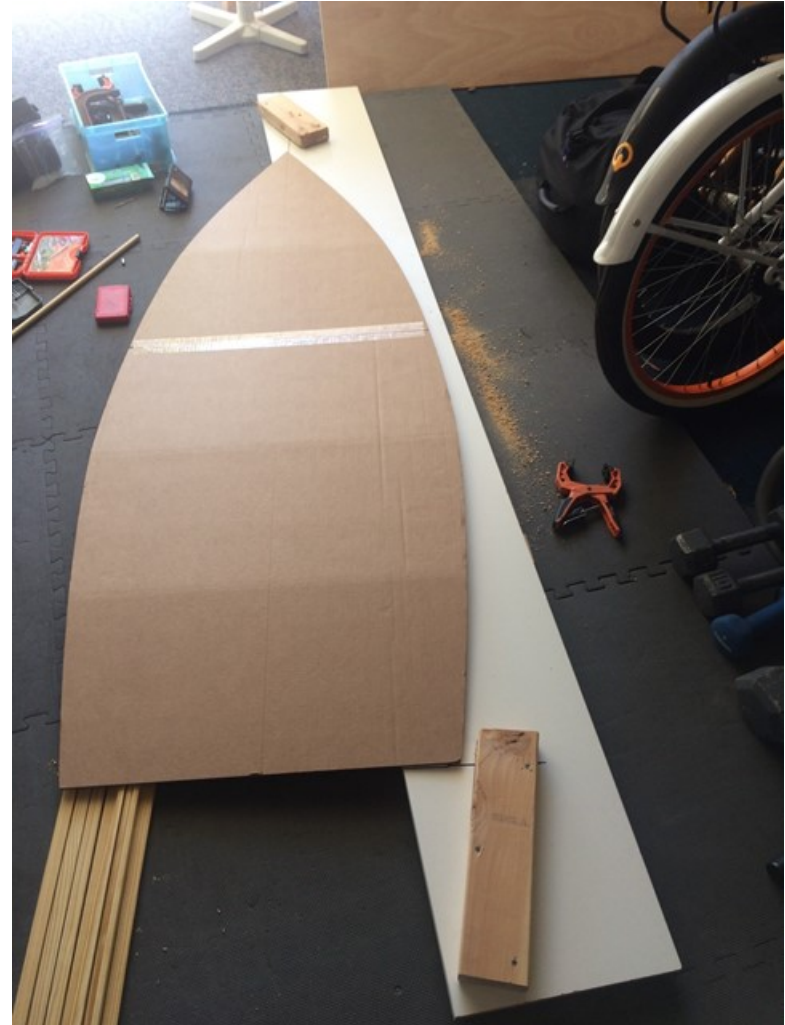




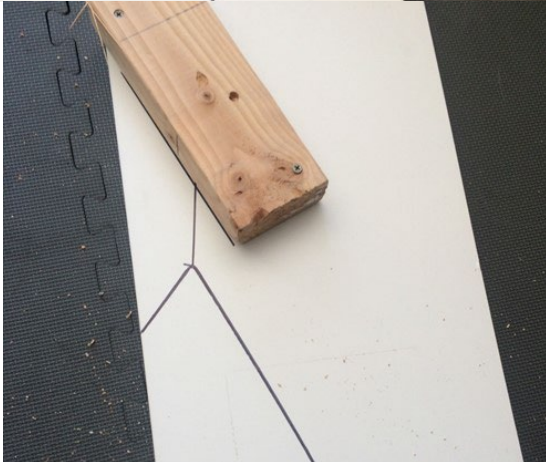
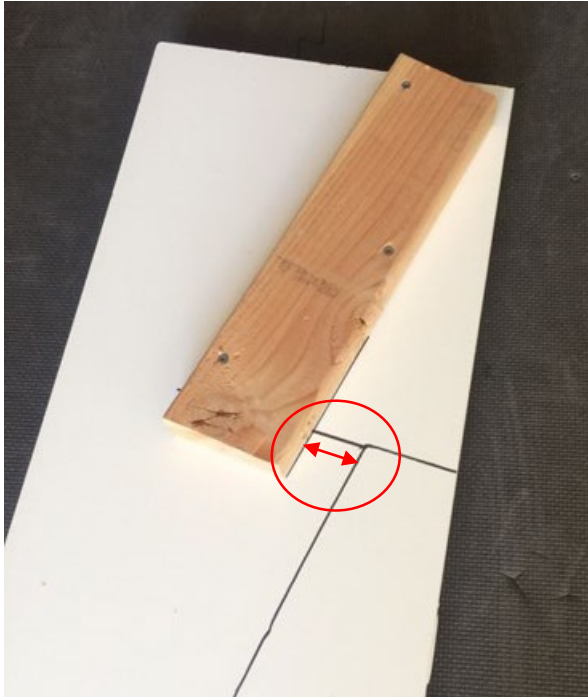
Trace the template on the ½" plywood, cut out, and sand edges



Make a jig to bend the gunwale.  
Trace the template on the ½" melamine shelf board.



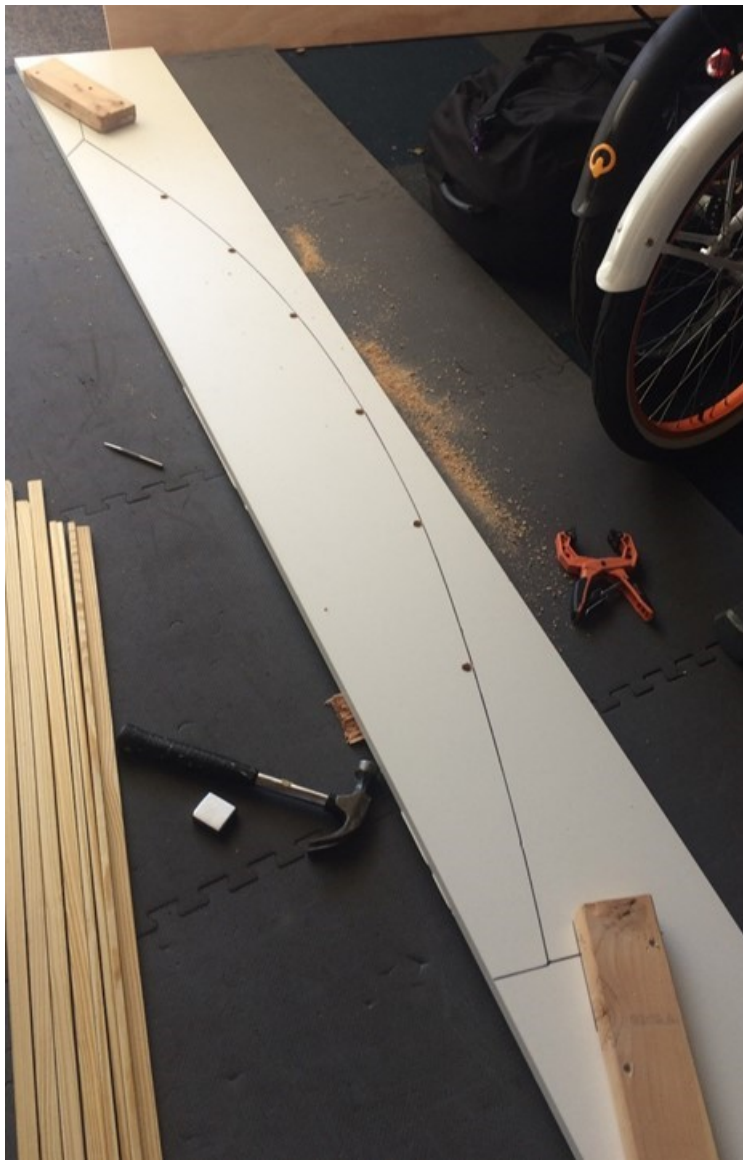
Determine the width of gunwale and mount a tension block. Do the same for the outer end.



Mark and Cut a slot in the tension blocks where you want the gunwale to stop



Drill  $\frac{1}{2}$ " holes along the inside of the boat arch. This will hold the tension against the blocks while the glue dries.

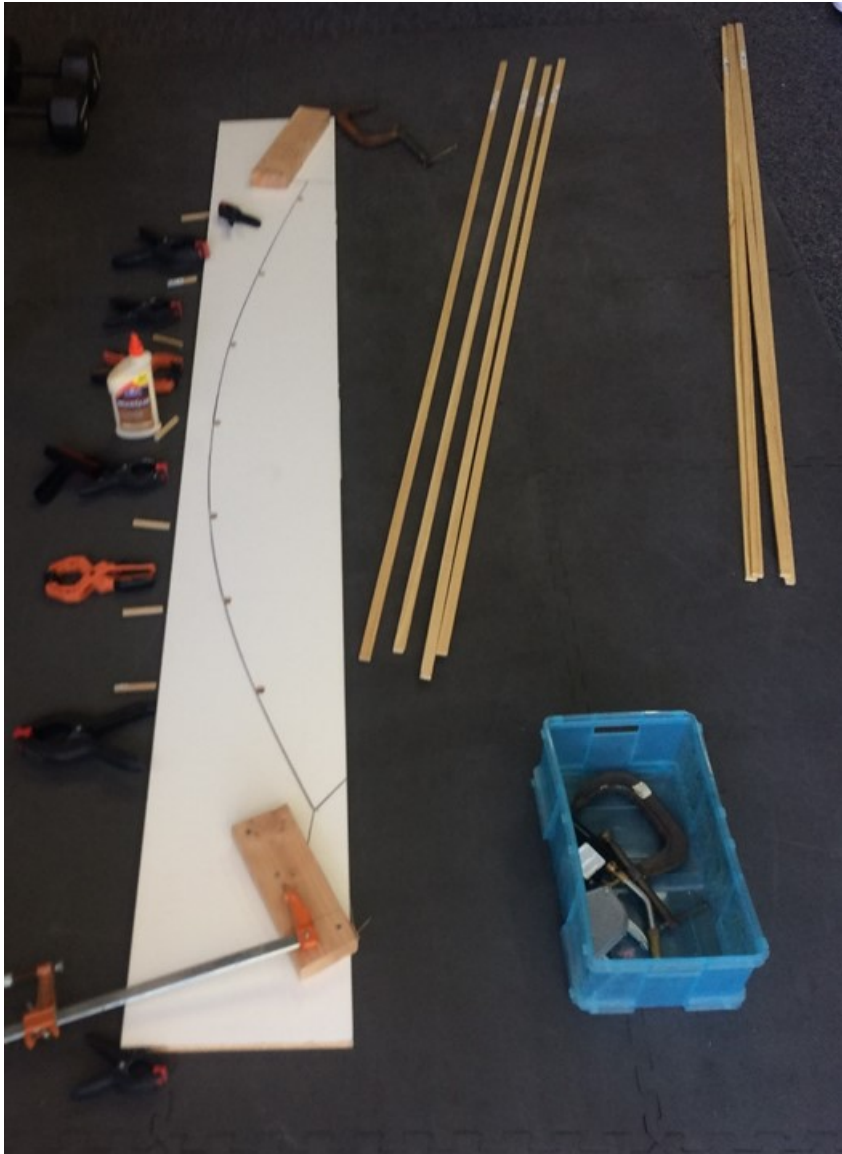


Cut the  $\frac{1}{2}$ " dowel into 4- 6" segments and test fit in drilled holes.





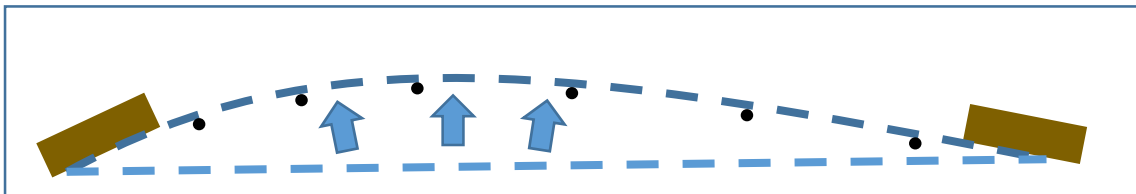
Prior to glue and bending exercise - prep the area with clamps, dowels, glues, etc.



Place 4 pieces of the pine trip bond side up. Apply wood glue and spread to coat the whole surface.

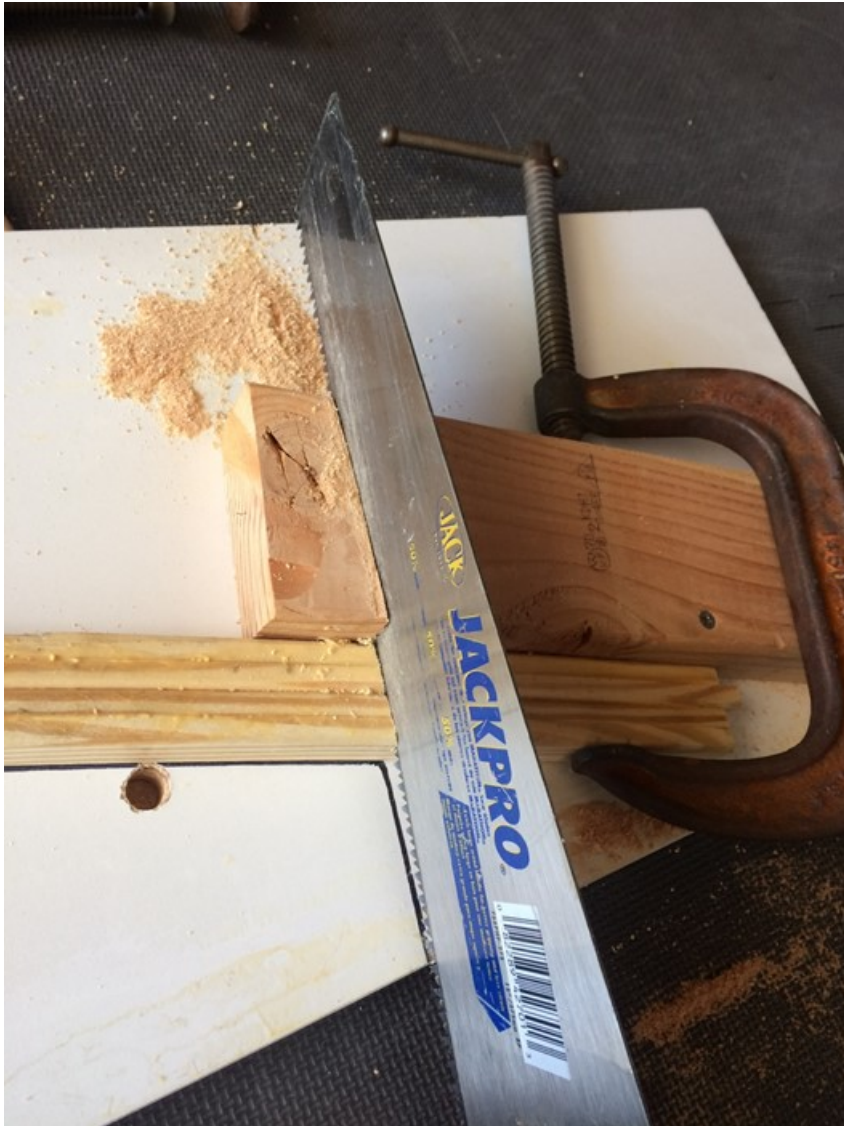


- Working quickly before glue sets, stack the pine strips against each other and place on jig edge side up.
- Slowly push the glued strips into the jig block until past the dowel holes.
- Place the dowel pin in the holes making sure there is not glue on them.
- Push down on the glued boards to make the top surface as flush as possible.
- Apply clamps in between the dowel pin or where there is gaps in the bent glued boards.
- If boards are warped – place weights on top of glued boards to remove warp.
- Let dry over night





Before removing from the jig, cut the gunwale in the desired locations.



Sand/plane to remove excess glue and clean up face.



Repeat for other side.



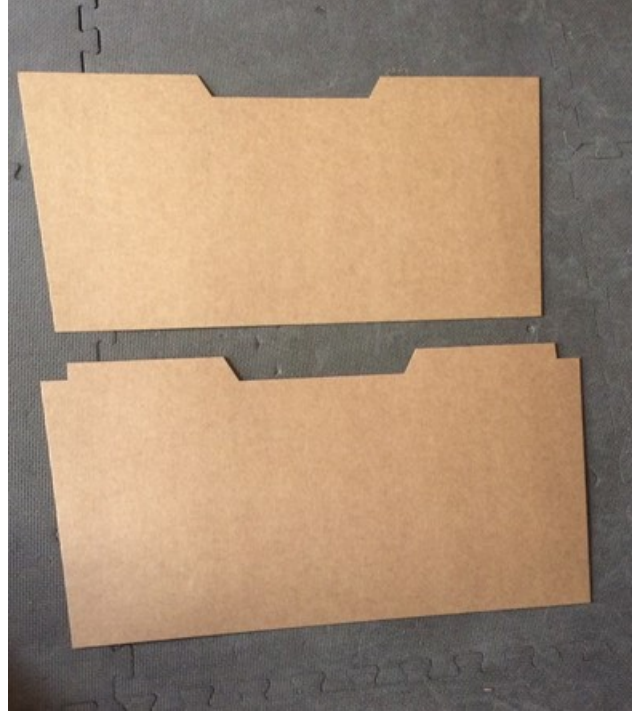


For the sides of the boat, rip the 1/8" plywood into pannels

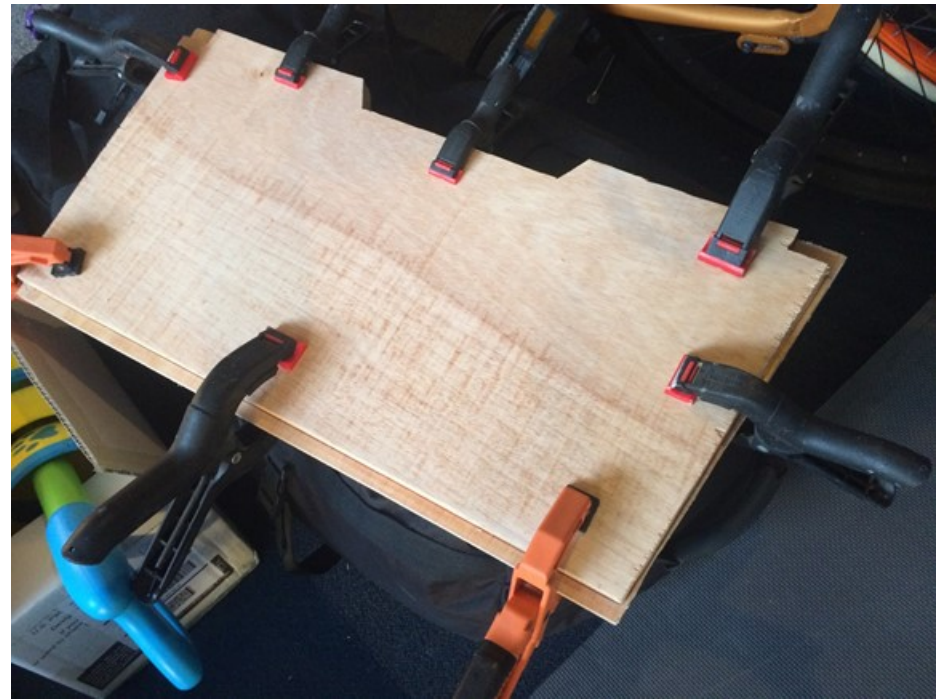
- Four 4 1/2" x 8 ' strips
- Two 4" x 8' strips







Cut out shelves – notches on top edge  
Base is doubled – one with and one without  
a notch (used to hide rail end)



Use pattern to mark shelf locations

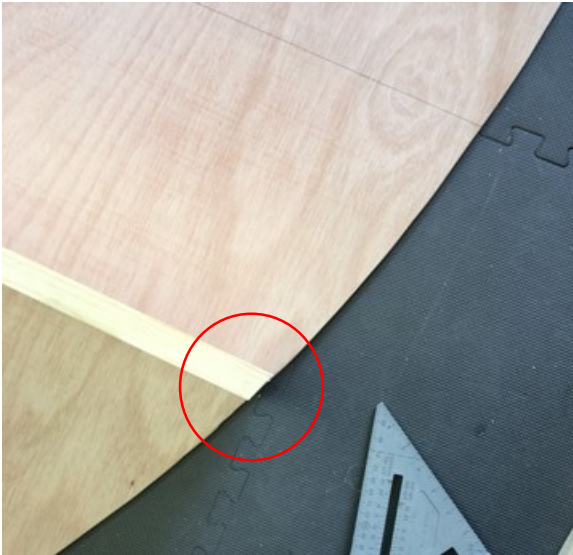




- Measure each shelf width position
- Add 1 1/8" to each side to create side bevel
  - Adjust circular saw angle to address curve of boat



Top down view of cut shelf







Solid block nose



Mount gunnel rails with  
glue and screws



Mount side panel with glue and screws





Complete paneling sides and then wood putty fill all gaps and sand smooth



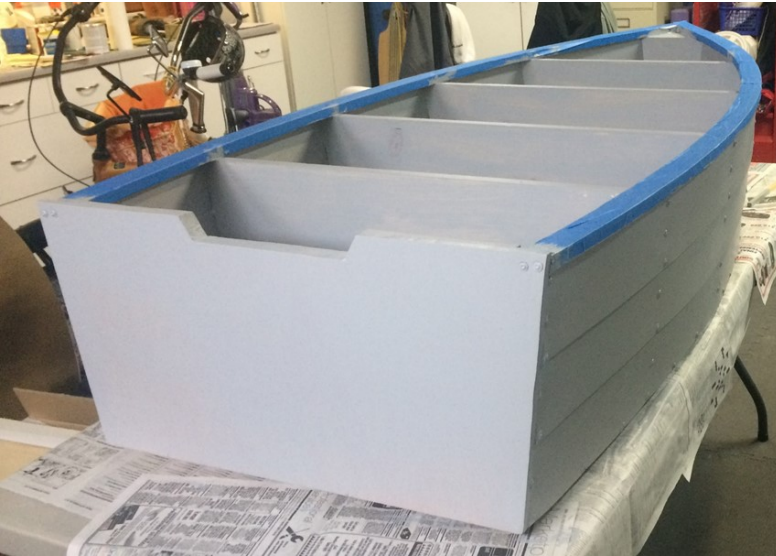


Actual vs Model – looking good

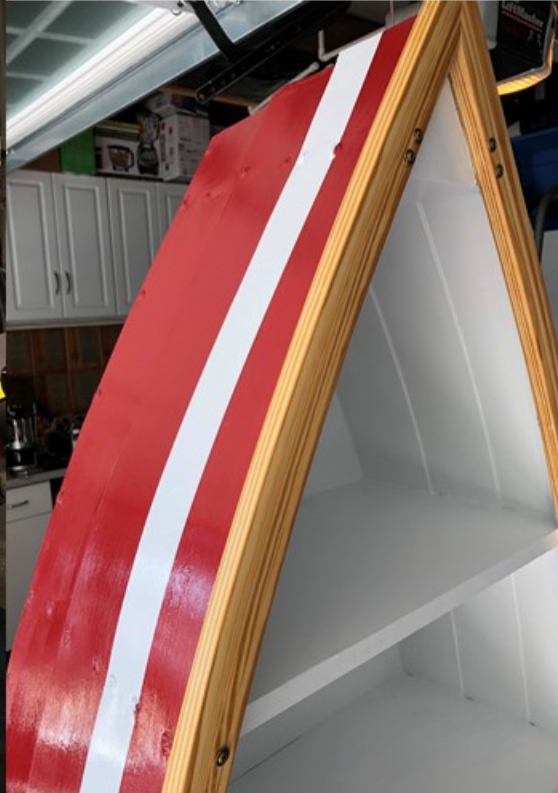




## Prime and paint







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