

## Finishing the Mini Opti Daggerboard

The unfinished daggerboard is made of high quality basswood 14 inches long and x inches wide x 1/8 inch thick.



**Components to finish off the daggerboard include**

*Daggerboard*



**Lead keel bulbs**(2) Left and right - attach to the bottom of the daggerboard

**lead shot** as required you can use any type of lead here is an example of using fishing weights.





**Glue** epoxy as needed



**Scrap piece of basswood** to make up the bulb area included with the kit (Triangular piece)

See picture of daggerboard above for sample scrap piece.

## Assembly

Begin the assembly of the daggerboard by first cutting out the keel bulbs from the accessory sheet provided.



You can use a fine toothed saw or exacto knife or cutters to cut out the two bulb halves.

Once they are cutout sand a bit to remove excess and then the next step is to add the lead shot and epoxy the shot into the keel bulbs. The amount of weight you use is up to you but I typically use the configuration below. One method also is to file the lead into shaving and mix it with epoxy and fill up the bulb. This is not necessary however.





You can 5 minute expoxy for this. Make sure the lead shot does not protrud above the surface of the bulb since you will need to glue the bulbs to the daggerboard. You will want to cut the bottom of the



Dagger board to the shape of the bulb as well.

Once the bulb is cured from the epoxy holding in the lead shot you can use more epoxy to glue it to the daggerboard. Slip the triangular piece of basswood behind the bulb and mark it so you can cut it to fit. Glue the second side of the bulb once the first side is set and add the triangular piece of basswood in the middle. Let all dry. You can use a little bit of epoxy to add to the seam for additional reinforcement if so desired for a secure bond. Do a bit of final shaping and the daggerboard is complete except for installation which once the hull is finished you will insert into the bottom of the boat and drill two fastening holes into the deck daggerboard cap to secure the daggerboard with pins. The length of the daggerboard is up to you. I would recommend starting with it full length. If you find the boat is too stiff or digging in on one side you can shorten it by small amounts until you get the perfect setting for your local conditions. You can also opt to get more than one daggerboard with different weights for different conditions. This is accomplished through trial and error. The class rules allow you to use any length of daggerboard and weight with the maximum length 14" and weight that will fit into the bulbs. You can also experiment by placing the bulbs higher up on the daggerboard if you desire.