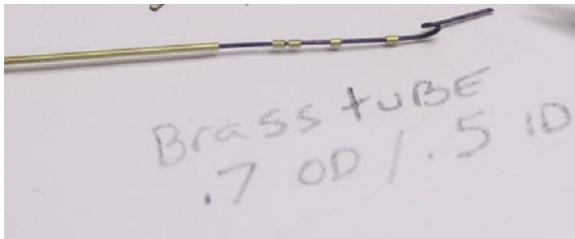


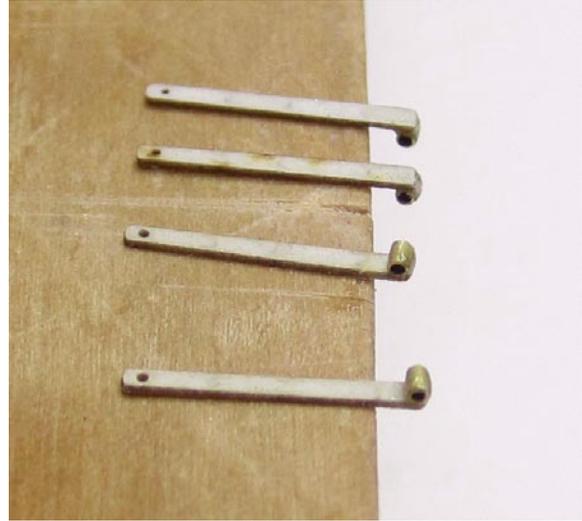
## Assemble your working port hinges.



1. Remove a laser cut hinge strap from the sheet. Cut it to the length you will need to fit your port lid. A sharp Xacto blade works well.



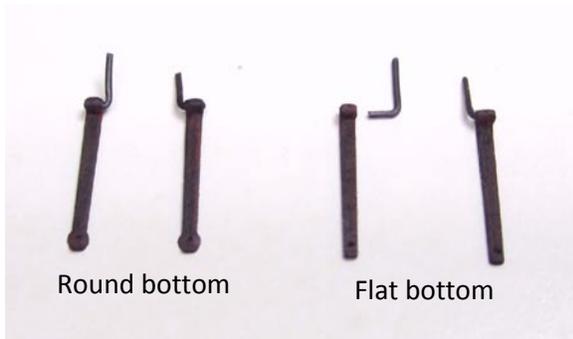
2. Cut the brass tubing into small sections. They should be the same 1mm width as the hinge straps. DON'T USE CUTTERS!!! The only way to cut this micro tubing without crushing it is shown in the photo above. Insert a length of 28 gauge wire into the tube. Roll a sharp Xacto blade over the tube until a small 1mm section is parted off. If you bend the end of the wire they will all collect nicely on it rather than bounce all over your workspace.



3. Glue a length of tube onto the end of the hinge strap. Use CA glue for this. Once it dries, add another drop to ensure a good bond. Be careful not to clog up the micro brass tube. This is best done by placing the hinge straps on a block of wood. Hang a tiny portion of the strap over the edge. Hold the main part of the strap down with your finger to prevent it from bending. The straps will be quite strong once glued onto your port lids as only the tiniest part at the top will hang over the port lid.



4. Paint your hinges black. This is easier to do if you string the hinges on some wire first. You will not have to hold each one and can paint several at a time this way. Use acrylic paint.



Glue the hinges onto your port lid and then glue them onto your hull....make sure the "L" brackets are positioned on the inside of the hinge straps when glued to your port lid. As shown in the image to the left.

5. Create small "L" shaped lengths of 28 gauge black wire. Insert one end into the hinge tube. **DO NOT GLUE IT IN.** In order to have working hinges they must be inserted without any glue.

The other leg of the "L" bracket is inserted into a hole you drill above the port opening on your hull. Use a #75 drill bit to make these holes.

**Your port lids will look like this and should open and close freely.**

