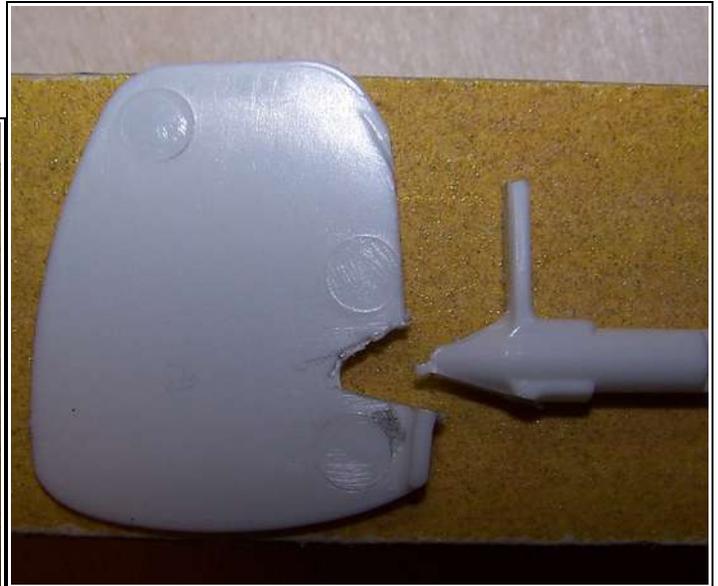


**Flyzone DHC-2 Beaver Water Rudder Modification**  
***Also adapted to Multiplex Pilatus PC-6 & Parkzone Sport Cub***

by Joe Gilbert  
Updated 9-20-14

The following changes were made to my Beaver water rudders to facilitate better handling on the water – taking off and landing. They are still effective for taxiing on the water.

First, cut the blade from the shaft as shown in the photo to the right then trim as shown below.



Cut a slot into the shaft wide enough so the rudder blade will fit as shown in the photos below. Once it fits, glue with CA. Now ready to be reattached to the floats.

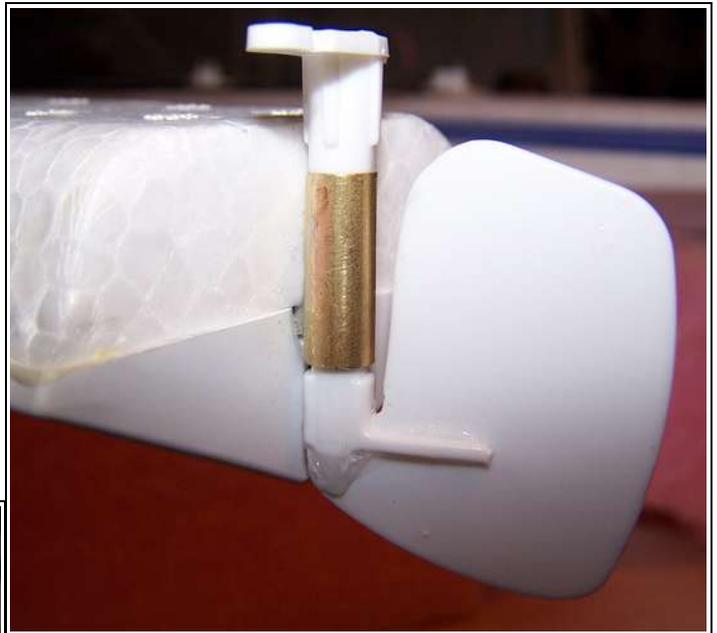


## Adapting the Flyzone Water Rudder to the Hobbyzone Floats

I made a brass adapter from brass tubing and sheet brass and soldered them together. The entire rudder assembly as shown only weighs 0.18 ozs!



Marked the location on the back of the Hobbyzone float ensuring the control arm would move freely above the float. Used a hobbyknife to cut a slot into the foam and plastic float bottom.

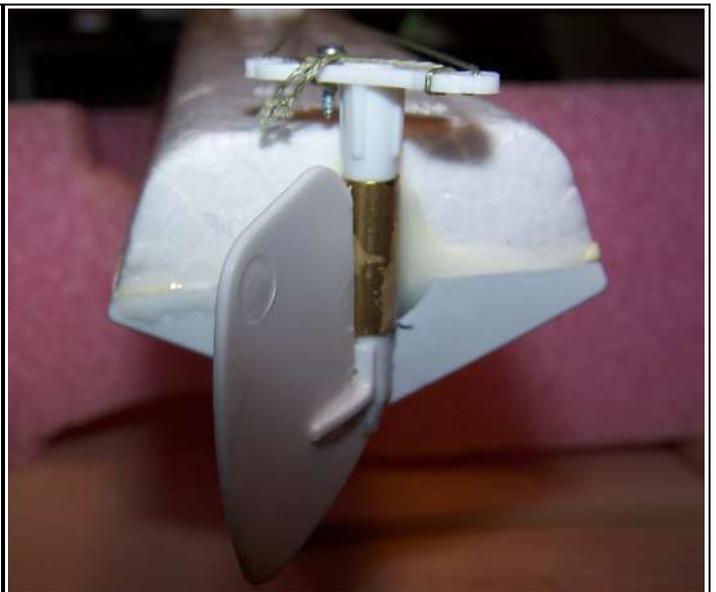


Inserted the adapter flange into the foam and glued with CA. Then added some epoxy with microballons. Used a pull-pull system to control the water rudder on my Multiplex Pilatus PC-6 similar to the mods I made on the Flyzone Beaver. Later adapted to my Parkzone Sport Cub with Hobbyzone Floats

I used a plastic tube formed with heat and taped to the float strut. The pull-pull lines are made from braided fishing line (65lb test) and the tube acts as the guide for both lines.



A single small screw in the water rudder control arm allows adjustment on the pull-pull lines. This has worked very well on my Flyzone Beaver and it works just as well on the Pilatus PC-6 and Sport Cub.



### Building the version for the Sport Cub

Again used the Beaver water rudder, used a 1/4" brass tube for the mount with a 1/2" piece of brass soldered onto the tube and glued into the float. Drilled a hole into the plastic between the two screws holding on the tail group and glued in a 0.125" piece of carbon fiber tube supported by a nylon washer glued to the plastic. Used an old servo arm that fits over the carbon fiber tube and used a servo screw to secure. Assembly is activated by the rudder control arm with a piece of music wire fitted to the correct length. Same fishing line used as before going thru a tube attached to the float struts. One screw and the entire assembly can be removed if you take off the floats.

