

A GOOD BOSTONIAN PROP

by Mike Nassise

With a prop diameter limit of 6" in the Bostonian event we need to maximize the prop's area, hence short, fat blades are required. The prop described in this article is the only type I've ever built for Bostonians and it has always worked quite well for me. It is built with a 1/8" dowel hub and blades cut from a plastic 2-liter soda bottle.

I found the directions for this prop on one of the early Bostonian plans published in a popular model aviation magazine. I used it on my first Bostonian model that I flew at indoor sessions at the MIT gym in Cambridge, MA. That should tell you how long it's been around.

To make the blades cut a blade pattern (drawing is full size) and position it at a 15 to 20 degree angle left of vertical on the soda bottle (for normal counter clockwise rotation). Trace the pattern and cut out the blade with scissors. Repeat the process for the second blade. Smooth any rough edges of the blades with sand paper. If a clockwise rotation is desired place the blade pattern 15 to 20 degrees right of vertical.

Next, the ends of the 1/8" dowel hub (1.5" long) are carefully slotted with a razor saw at a 45 degree angle to the shaft (1/32" MW) axis. Glue blades into the slots with 5-minute epoxy. The finished prop is then balanced by scraping the "heavy" blade with single edge razor blade.

If you prefer wooden blades to plastic you can cut them out of 1/64" plywood and shape them on a cylindrical container of similar diameter to the soda bottle, but 1/64" plywood is quite expensive. An alternative would involve using 1/16" sheet balsa for the blades.

If using wood, the blades are soaked in water and then molded to shape on a cylinder of appropriate diameter with the blade tips pointed up the suggested 15 to 20 degrees left of vertical. When thoroughly dry proceed as outlined above. Naturally, wooden blades are not as rugged as those made of plastic. Below is a drawing of the complete full size prop:

