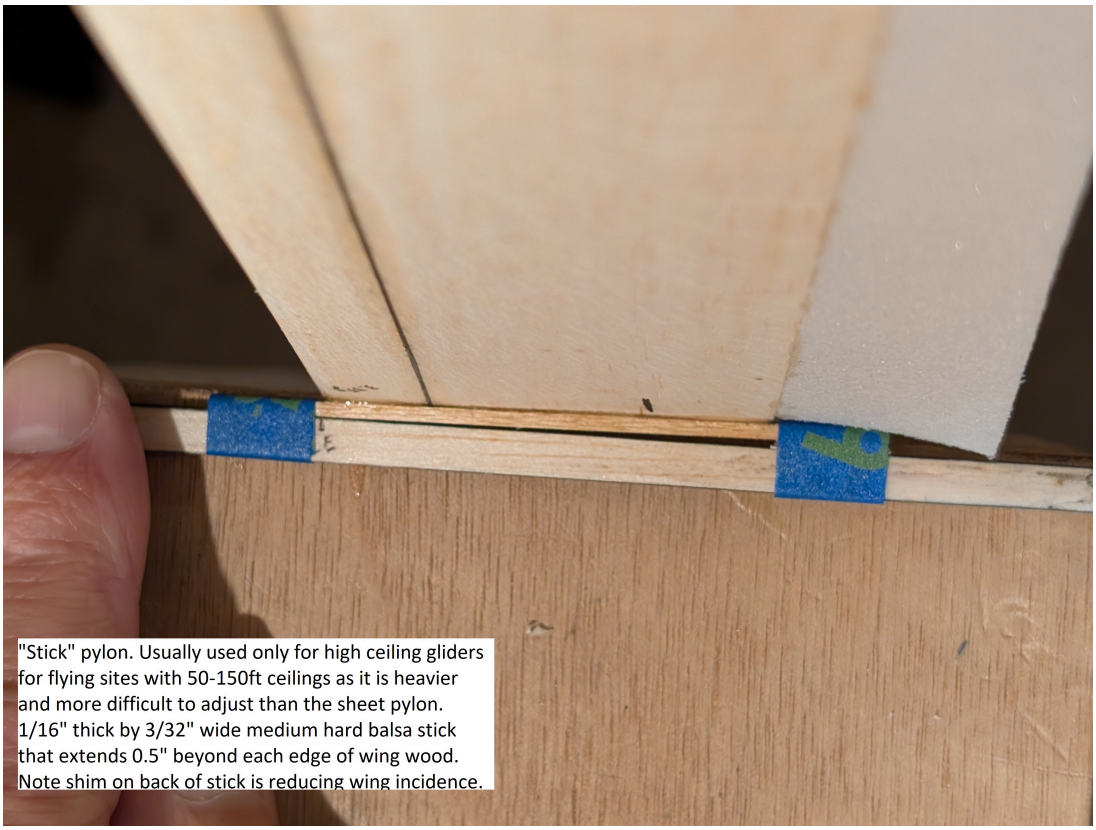
Flapper glider advanced techniques - SO Glider Event 2026-27 season
NFFS Youth Development Program
By: Brian Turnbull

Watch the NFFS Glider Overview video and work through the Flapper Building and Trimming resources before moving on to these advanced techniques, which will allow you to

Flapper Advanced Building and Trimming

1. If you are flying in a very high site (50+ ft), you may find it helpful to use a “stick” pylon, shown in the photo below. This is a bit heavier and more difficult to adjust, but. . . (needs explanation)



"Stick" pylon. Usually used only for high ceiling gliders for flying sites with 50-150ft ceilings as it is heavier and more difficult to adjust than the sheet pylon. 1/16" thick by 3/32" wide medium hard balsa stick that extends 0.5" beyond each edge of wing wood. Note shim on back of stick is reducing wing incidence.

2. Once your glider is flying close or slightly more than 1 second per foot of max launch height and is launched to at least 18-20 ft and the glide circle is correct, you can evaluate the transition and glide “attitude” and begin to test variations in CG, wing incidence and flap deflection to get more flight time.
3. Test various launch inclination angles and bank angles, in five degree increments, at the rubber stretch that gives the desired max climb height to find the best angles for a perfect transition from climb to glide with no altitude loss.

4. For a particular flap deflection and incidence, try removing ballast from the nose 20-30 mg at a time to see if flight time improves. If stalling occurs, put the ballast back on the nose. Remember that if you get the launch angles slightly wrong and get a stall on transition, this transition stall might continue throughout the remainder of the flight or maybe the first half of the descent. This is not a stall due to CG. It is a stall from bad launch angles or rubber stretch!
5. Next increase flap deflection 1/16”-1/8” to try to improve flight time. Sometimes increased flap deflection requires 20-30 mg additional nose ballast.
6. The last thing to fine tune is wing incidence. This is more challenging and time consuming as one piece of tape holding the pylon has to be mostly removed to change or remove a shim.