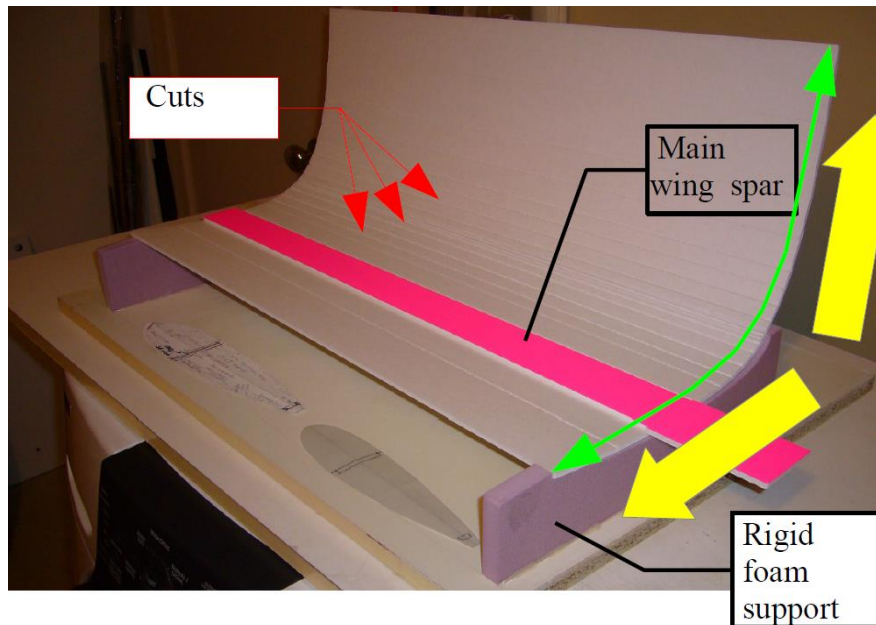


EParrot is my own design that satisfies the following criteria:

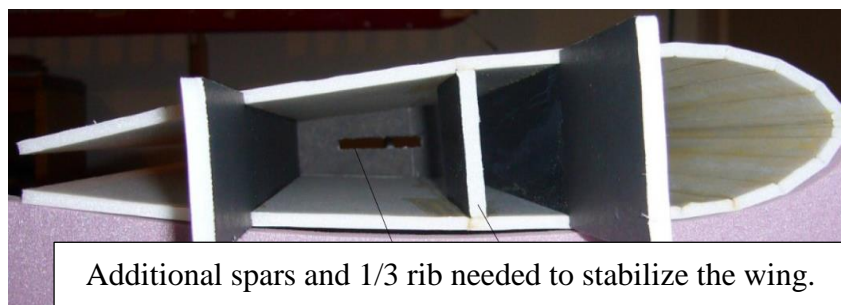
1. Construction using mostly paper-foam-paper boards (PFP)
2. Low cost (30"x 20"x 0.18" PFP board cost \$1.25 CAD, 4-5 boards are needed for entire plane)
3. Very low weight (one PFP board weights 4 oz.)

EParrot will be powered by Cobra 2820/12 electric motor (<http://www.cobramotorsusa.com>).

EParrot Wing (total span = 49 to 50"; airfoil thickness: 21 to 22% MAC) is formed in two separate identical halves in the simple fixture shown below. The fixture helps to maintain the curvature of the wing but is not absolutely necessary. Each wing half is first cut out as a flat PFP piece and then the cuts of the inside paper skin are made using fresh Xacto blade. This critical operation must be carried out very carefully and precisely as the number of cuts and their spacing defines the curvature and the quality of the wing.



The cuts spacing increases from the L.E in the direction shown by yellow arrows but the number of cuts is a matter of personal choice. More cuts will give smoother wing but will increase the weight and the time needed to complete the wing. I have selected to make eighteen cuts between green arrows.



½ wing formed and glued with Elmer's glue. No T.E yet. Weight: 3.9 oz.

To be continued