Polikarpov Po-2 foam board model design by Alistair Potter © 2014

- Wing strut positions
- Upper wing - R - not to centreline
- Lower wing top plate
- Fold line for straight sided fuselage only
- Alternate tailskid mount for straight sided fuselage
- Alternate cut line for straight sided fuselage. Cut dashed locating holes on horizontal stabiliser.
- Undercarriage mount
- Alternate cut line for straight sided fuselage.
Turtle decks, tail1, tail2, centre & nose.

INTERPLANE STRUTS

These mainly maintain the wing spacing, but will also share load between the wings.

Use fine piano wire (around 1mm) for the struts and spare servo arms with a short length of BBQ skewer through the mounting hole as attachment points.

On the bottom wing tilt both attachment points towards the centre of the wing.

On the top wing tilt only the front attachment point towards the centre of the wing.

Sizes are approximate and will depend on the fittings in the wings. Just the same as fitting control rods, you have to make them up to size. Make them in pairs left and right, starting with the two centre pieces to establish the overall geometry.

For ease of assembly/disassembly, use a modified z-bend at one end and a right-angle bend and a swing-in keeper at the other end.

DUMMY MOTOR

220 dia prop is scale (8.7 inches) so probably 9” prop is closest.

Engine - 5 x 14mm cylinders mounted on centre ring. Backplate with magnets to hold to nose?

6 & 8mm inside diameter black nylon washers stacked alternately on dowel glued in cardboard cylinder.

CUSTOM POWER POD

Custom pod and firewall allows typical 2200mah battery to be carried.

ESC etc. suspended inside pod with velcro or adhesive pads. Pod held in place with zip ties wrapped around cabane wires and skewers placed inside the pod.

You will need a battery strap to take the weight of the battery, the skewer and elastic arrangement at the front is only for locating the undercarriage mount and will not carry this load.
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CABANES

CG  

Initial CG (30\% of chord) is taken from the midpoint average of both wings. This gives a position of 84mm from the leading edge of the top wing. This model flies well with the 84mm CG.

Rear cabane frame tilted back to create a 2.5 degrees tilt in the wing platform.

30\% of chord - 45mm

angle of incidence

OVERLAY

54 (approx) - fixed by angle of rear cabane frame to create correct 2.5 degree angle of incidence

CG - 84mm

front

UNDERRAGRIAGE

CG

DECK

tongue depressor/popsicle (lollipop) stick
turtledeck
nose piece

2mm wire for undercarriage

Depending on width of wheel used, allow extra at each end of axle for wheel width and coller/glue blob to attach wheel. 65mm wheel is scale.

Kink the last 15mm of the undercarriage wire at the sharp corner to make it vertical and stop the ‘pointy bit’ catching in any wheel spokes.

front

Initial CG (30\% of chord) is taken from the midpoint average of both wings. This gives a position of 84mm from the leading edge of the top wing. This model flies well with the 84mm CG.

Rear cabane frame tilted back to create a 2.5 degrees tilt in the wing platform.

30\% of chord - 45mm

angle of incidence

UNDERRAGRIAGE

CG

DECK

tongue depressor/popsicle (lollipop) stick
turtledeck
nose piece

2mm wire for undercarriage

Depending on width of wheel used, allow extra at each end of axle for wheel width and coller/glue blob to attach wheel. 65mm wheel is scale.

Kink the last 15mm of the undercarriage wire at the sharp corner to make it vertical and stop the ‘pointy bit’ catching in any wheel spokes.