Notos assembly instructions

Common instructions:
The core of the wing is made up of extruded polystyrene, which is coated in fiberglass with carbon reinforcements. The wing has to be handled with care, because due to the low weight is susceptible to damage, especially for pitting.
ATTENTION! Use only adhesives designed for polystyrene, epoxy resin or polyurethane-based adhesives. Do not use polyester resins, substances based on organic solvents and most CAs. The coating is micro porous so staining may also cause damage to the core.

Wing Assembly:
Create gaps for the servos under the square carbon frames. Draw the outlines of the servos on the cover, cut the coating and dig the core mass out. Prepare the shafts for servo wires.

Glue both halves of the wing together with 75mm dihedral on each side (see scheme). Drill holes for the screws – see top of the pod, you'll find two marks there. Holes in the wing has to match those marks. Fill the holes with dense epoxy. Roughen the wing join and cover with one layers of carbon fiber. Use some extra carbon cloth around drilled holes to make those areas stronger. Cover with cellophane and press using some soft material. Join has to be nice and smooth. After epoxy is dried, drill 2 holes for M3 screws. Drill hole for launch peg at preferred end of the wing. Peg distance from edge of the wing should be 1cm. Glue the peg in, add some extra epoxy around the peg from top and bottom side so that the joint between peg and wing is nice and smooth.

Tail surfaces:
Adjust the carbon tube length so that the it matches the scheme. In the tube create two gaps for rudder, similarly create opposite gaps in the rudder. Use firm thread and coil it around the tube in position where the prepared gap ends. This is to strengthen the tube so that it does not break during hard launches, use epoxy to fix the thread on it's place. Glue the rudder in.

The elevator should be glued carbon holder. Point on the bottom holder should be in the direction of flight. Make sure the elevator and rudder are perpendicular. All glued joints should be covered using fiberglass. Do not use much epoxy here – every gram on tail means several grams in nose afterwards when adjusting the CG.

Fuselage:
Create an oval hole for wires that will go from the wing in the pod. Beneath those marks for screw holes there are prepared aluminum plates. Drill the hole through the front mark and fabricate M3 thread. Fit the wing and attach it to the pod using the front screw. Then adjust the wing position so that the angle between the wing and the tail is 90 degrees, mark and fabricate thread for rear screw. Roughen the end part of the pod, screw the wing on and glue the tail tube to the pod. Make sure that elevator plane matches the wing plane in front view. Glue steel or carbon string on the bottom part of the canopy so that the string goes over it's edges slightly. Then it should fit on the pod nicely and be fixed properly.

Fitting the gear:

Remove connector from servo wire and pull the wire through the wing. Glue the servos in the wing so that it can be removed easily (without wing damage) in case of servo failure. Cover

servos with adhesive tape. Fix aileron levers in ailerons so that the lever joins both parts of the fiberglass cover.
For rudder and elevator control we recommend usage of kevlar wire and torsion spring. Then fit the electronics in the front part of the pod in this order from front: accu, Rx, servos for elevator and rudder. We recommend using 360mAh accu.

Setting up:
Recommended point of CG for maiden flight is 80mm from LE. Every pilot has it's own preferences and CG position should be adjusted to pilot's needs during first flights.
We recommend to set the following flight phases:

Launch and Speed: ailerons +2 mm
Thermal: ailerons -2 or -4 mm
Normal: ailerons +0 mm

For each flight phase there is need to compensate wing setting with elevator. For slowing down we recommend using ailerons as brakes by moving them down.

In case you have any questions regarding the instructions or the plane itself, please do not hesitate to contact us at info@ypsi.cz.