

## Crack Yak

\*get suitable servos and center them using your RC system. For ailerons, use strong and fast 8 to 10g quality servos, for rudder and elevator use good 6g servos.

To achieve light and easy movement of the elevator, so that you do not strain your elevator servo excessively, first do the following: take the elevator/stab part and deflect the elevator to the maximum, i.e. 180°. Secure with a suitable weight and leave in this position for at least 3 hours (better overnight). The „hinge“ epp material will compress and make a light yet strong elevator hinge.

1. Use CA glue to attach the horizontal stabilizer to the „backbone“. Attach the wings and the front part of the backbone. Make sure that there is space left between the front and aft part of the backbone – the wing spar will go there later. Do not apply glue into this space.
2. Cut out the interim tabs in the spar slot in the wing. Use CA to glue the spruce spar into the wing. Turn the assembly upside down and attach the elevator servo – you can use hot glue or your favourite method of doing that. From now on, we will just say „attach servo“...
3. Make space (cut out EPP as necessary) for the elevator servo in the lower fuselage part. Also make space for the aileron servo. There is an opening in the lower fuselage for the aileron servo horn. There is an aileron servo opening in the backbone. Attach the lower fuselage part to the backbone and install the anti – torsion strips. Use generous amount of thin CA – you will prevent tail twist to large extent by doing this.
4. Glue the z- bends to the aileron pushrods (diam. 1,5x150mm) and use hot air gun to cover them in the included shrink tubings (a,b,c). Attach the extended aileron servo arm to the original one. You can drill 1mm holes through both arms (2 to 4) and CA glue leftover small pieces of the elevator pushrod into those holes.
5. Re-drill 1mm holes into aileron horns (marked as No.1) and install the adjustable pushrod links (with the „quicklock“ washers). Cut through the aileron horn slots and install the horns into the ailerons, using CA glue. Install the aileron pushrods - the Z-bends go into the extension servo arm.
6. Glue the canopy into the upper fuselage part. Make space for the rudder servo and also for the protruding part of aileron servo if necessary. Glue the upper fuselage to the rest of the model. Glue the rudder part to the fuselage.
7. Locate the elevator and rudder pushrods (diam 1 mm x 500mm). Attach the z-bends like you did in the aileron case (shrink tubing and all). Glue all the pushrod guides/supports into the fuselage. The elevator guides are glued either into the backbone (elevator) or to the upper fuselage (rudder). There are small slots pre-cut for the guides. The pushrods should be located approx 5 mm from the fuselage.
8. Cut through the prepared slots for rudder and elevator horns (marked as No.2). Drive the z-bend through the elevator horn, drive the pushrod through the respective guides and glue the elevator horn to the elevator. Repeat the same for the rudder pushrod. Important: the elevator z-bend is inserted to the horn from the outside, the rudder z-bend from the bottom.
9. servo arm extension – for extreme control throws, you may need (depending on your specific servo type) to use one. Slide the extension arm on your servo arm, fasten with kevlar line and CA.
10. on the servo side, the pushrods are attached by the adjustable pushrod links – just like on the aileron servo. Glue the motor mount to the fuselage front, install the motor.
11. cut an opening for your receiver – make it a bit smaller for tight hold. Place the battery so that you achieve your desired center of gravity. You can use adhesive velcro tape or a suitable cutout to hold the battery.
12. Glue the SFGs (the vertical tabs) into the wing

### *RC equipment:*

*2x servo 6g (rudder, elevator)*

*1x servo 9g (ailerons)*

*motor cca 50W, 25-30g*

*brushless ESC 10-12A*

*battery 2S 450 mAh*

*We wish you many happy flying hours with the Crack Yak.*

*Your RC Factory team.*