

CARBON STIK

The **Carbon Stik** was designed to be simple, light and ... fun!!!

The wing and tail surfaces have the typical 'Stik' look. With the carbon tube tail boom the name **Carbon Stik** was a no brainer. The fuselage is permanently glued to the wing. With its small size and weight, the plane is easy to transport.

The motor is a 25gr 2206 1500KV brushless outrunner with a prop saver. According to the manufacturer, it provides a thrust of 475gr driving a 9x5 propeller using a 2S lipo. To allow access to the battery, a removable hatch is located at the bottom side of the forward fuselage.

Four 8.5gr EMAX ES08D servos are used. Two wing mounted servos provide aileron control. This setup allows the ailerons to be used as flaps. These servos are permanently attached to the planking on the bottom side of the center wing section and are no longer accessible once the wing is covered. The rudder and elevator servos are carefully positioned in the fuselage to allow the pushrods to be routed through the tail boom. These servos are accessible via a removable hatch at the bottom side of the fuselage. The pushrods are 1mm piano wire in sleeves with an outer diameter of 2mm. The 3K carbon tail boom has a 6mm outer diameter and a 4mm inner diameter. At the tail end two narrow openings are cut in the carbon tube to route the pushrods towards the control surfaces.

The tailskid is 1.5mm piano wire bent to the correct shape. It is held in place by a small 1.5mm U shaped clamp soldered to the tailskid and some black wire soaked in thin CA.

The initial plan was to use a 1.5mm piano wire landing gear. With the big propeller the landing gear legs need to be long and the end result was flimsy. In the end a commercially available carbon landing gear was used (PT Models ref. PT049 for models up to 700gr). It is a bit heavier than desired but it is sturdy and flexible and should provide trouble free ops.

By carefully choosing all materials and components, an excellent balance between weight (390gr) and strength can be achieved. The **Carbon Stik** has excellent low speed characteristics, is very maneuverable and feels best at home in calm weather conditions.

