



STRATAIR - Modelltechnik GmbH, Stierberg 11, A-4153 Peilstein

# Raketenwurm 2b



Thank you for choosing the Raketenwurm 2b, one of our high performance models.

The Raketenwurm 2b is designed by Wolf Fickenscher and won with that model F5B WC 2006. The completely new airfoil and the innovative fuselage design makes the Raketenwurm 2b to the best F5B model. The used materials and design are especially for contest flying. Never the less the Raketenwurm 2b is a multi talent. Slope flying, DS flying is also possible with the Raketenwurm 2b. The surface has only a minimum amount of colour. It saves a lot weight and gives the model a special character. The wing is produced out of full carbon and the fuse out of aramid with unidirectional carbon. The Raketenwurm 2b is nearly ready to fly. Never the less we recommend to read the instruction very carefully.

## ATTENTION:

The Raketenwurm 2b can reach extreme high speeds. Be aware that this is not just a toy!

Finally STRATAIR wishes you a lot of fun in building and flying the Raketenwurm 2b.

## 1. Stabilizer:

Pushrod for elevator: use a 10-11mm servo (Volz Wing Maxx, HS-5125MG) for the elevator. It is important that only high quality servos will be used. Cut the opening for the elevator servo into the vertical stabilizer. Use a metal control horn (M2-screw) and screw it into the small hole of elevator. Connect servo with a 1,5mm pushrod (steel or carbon). It is necessary to connect pushrod near of the turning point of the servohorn to integrate it fully in the fuse.



Connect wing with fuselage. Put the model on a straight plate. Measure wings leading and trailing edge to "0". Put stabilizer to the fuselage and check that a movement of +10/-7mm is possible. Now measure also the stabilizers leading and trailing edge to "0". Wing must be now total neutral in relation to stabilizer. Adjust now length of servo-pushrod and fix servo with some tape. Measure distance: edge of wing to stabilizer and correct angles (wing and stabilizer in parallel). Glue metal screws of stabilizer into vertical stabilizer with some "thick" epoxy. Afterwards you can glue servo into vertical stabilizer. Take now the servocover (in kit), cut it that it fits with the opening and tape it.

## 2. Fuselage:

Receiver and receiver-accu (best cells inline) should be positioned as far as possible in the back (CQ reason, if using heavy



motors). If 16 SubC will be used the accu opening must be increased by removing some material. Cut a opening for cooling between nose and wing to allow some cooling. The fusecover behind wing must be adjusted according cutting lines.

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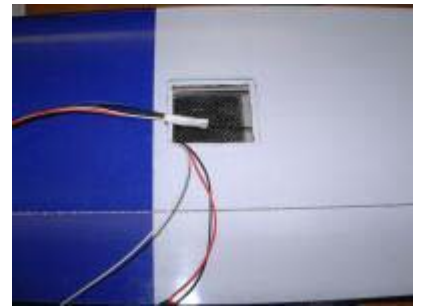
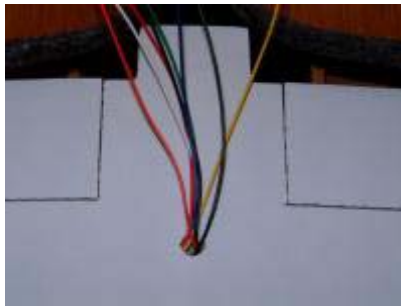
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### 3. Wing:

Open the windows for the wing servos. Check that servos fit. To save some weight profis remove parts of servos.



Make wiring of the servocables and lead them to the back-middle of the wing.



Cut down horns to make them fit. Sometimes it is necessary to make new holes in the horns.



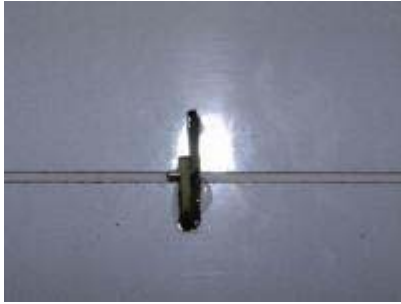
Bend a "z" at the end of the pushrod. Glue the servohorns into the aileron and flap. Be careful that the horns have absolute perfect contacted to the top and bottom side of the ail. and flap. Otherwise fluttering is possible. Now make a 10-15mm slot for the pushrod into the wingsurface in front of the wing.



Put the servo incl. linkage in the wing and make a "L" bend at the right position that you can connect it with the horn of aileron or flap. For servopositioning use some tape. Final fixing of servos at the very end of building recommended.



If slot is exactly there is no need of a sucker. Continue with wing wiring. Use a 6-pin connector. Connect positive and negative together and solder them on 2 pins. The other 4 pins are for the signal of each servo. On the other side of the 6-pin connector solder cables to the receiver.



Finally glue servos with “thick” CA or silicon or epoxy into the wing. Check that servos have contact to main spar, up and bottom surface!!! If this is not so, the turning-force of servos can not be transferred to the moving surfaces. Finally close the servo windows with the covers (tape).

#### **4. Motor:**

Attach motor with motormount. For better glueing some slots can be cut into the sides. Run some epoxy or CA inside the lip (fuselage) and also some to motormount and move motor to the front into fuse. Let it harden.



#### **5. General:**

No mechanical tolerances are allowed in the pushrods. Wing should be taped with fuse at leading- and trailing edge for flight.

#### **6. Movements:**

Elevator: + 7/-6mm  
 Aileron: +10/-5mm  
 Snapflap (flap and aileron): -5mm  
 CQ: 69mm behind leadingedge

#### **Recommended components:**

**Motor:** 200-320g brushless, MEGA AC 22/30/1+5:1, Plettenberg 220/37/A1 P4 7:1, Hacker B50 7M FAI,..  
**Regler:** Schulze future 18.149F, MGM TMM 22416-3 FAI, Castle Creation CC125  
**Accu:** 8-16 x GP3700 or other SubC cells  
**Servos:** Aileron: D60 DYMOND, Volz Wing Maxx, Hitec HS 5125MG  
 Flap: Volz Wing Maxx, Hitec HS 5125MG  
 Elevator: Volz Wing Maxx, Hitec HS 5125MG, Futaba 3150  
**Receiver accu:** 4x150-250mAh

### Technical informations:

Wing span:	1900mm
Length:	995mm
Max FAI weight (75g/dm <sup>2</sup> ):	2107g
Empty weight:	ca. 440g
Total wing area:	28,09 dm <sup>2</sup>
Spinner:	36mm

### **Removable Tail:**

For some reasons a removable tail could be helpful. Here some solutions of pilots.

#### Version1:



Top side must be opened a little where turning screws are located. M3 screws must be removed and with 3mm drill increased. A metal part with radius for turning mechanism must be produced.

#### Version2:



Use some 5mm carbon rod and glue it between the two M3 screws. Take some carbon tub which fits over the 5mm carbon rod in the elevator, move them together. In the bigger tube mill some small openings for the M3 screws of the elevator that you can move these 2 carbon parts as far as possible together. Finally drill a 3mm hole through both tubes and fix them with a bolt. Secure bolt with some tape on both sides of vertical stabilizer.