

Manual Ultegra F3K



Congratulation to your new Ultegra. The model was developed together with Rainer Moosmayer and Peter Wick. Many ideas and experiences of previous F3K models are part of that model. The Ultegra is an innovative and modern hand launch glider. Beside best flying performance, an easy and fast finishing was important during designing the Ultegra. Our result is that nice model which can be completed in some small steps.

All composite parts are produced in precise molds. Each model is produced with experience, know how and all hand made. Before delivery the quality of each Ultegra will be checked carefully. The finishing and using can not be watched by us and so we do not give you any warranty.

If there are any questions concerning the model we will offer assistance as good as possible. It would be great if you would send us pictures or videos of your Ultegra or give us your feedback.

At the end of the introduction we wish you fun and success with the Ultegra.

1. Fuselage

Into the fuselage you have to mill/drill 3 holes. One for the servocable and 2 for the pushrods of both stabilizers. On the picture you can see position and size.



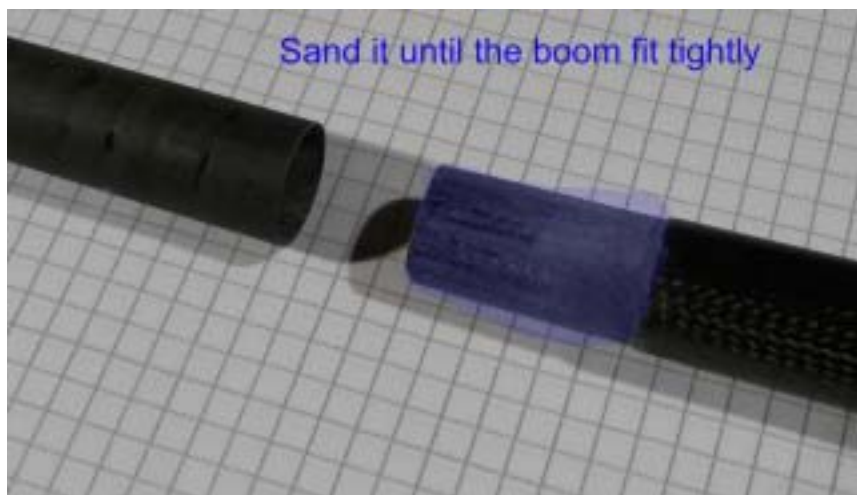
Here you can see the servocables (each ca. 27cm) which connect wing and receiver.



For receiver battery use 4 x 350-400mAh Zellen (KAN oder GP). If you position them according picture below you are able to put batteries as far as possible to the front.



The tailboom-fitting at the fuselage should fit perfect. If not, use some sandpaper and work a little on it.



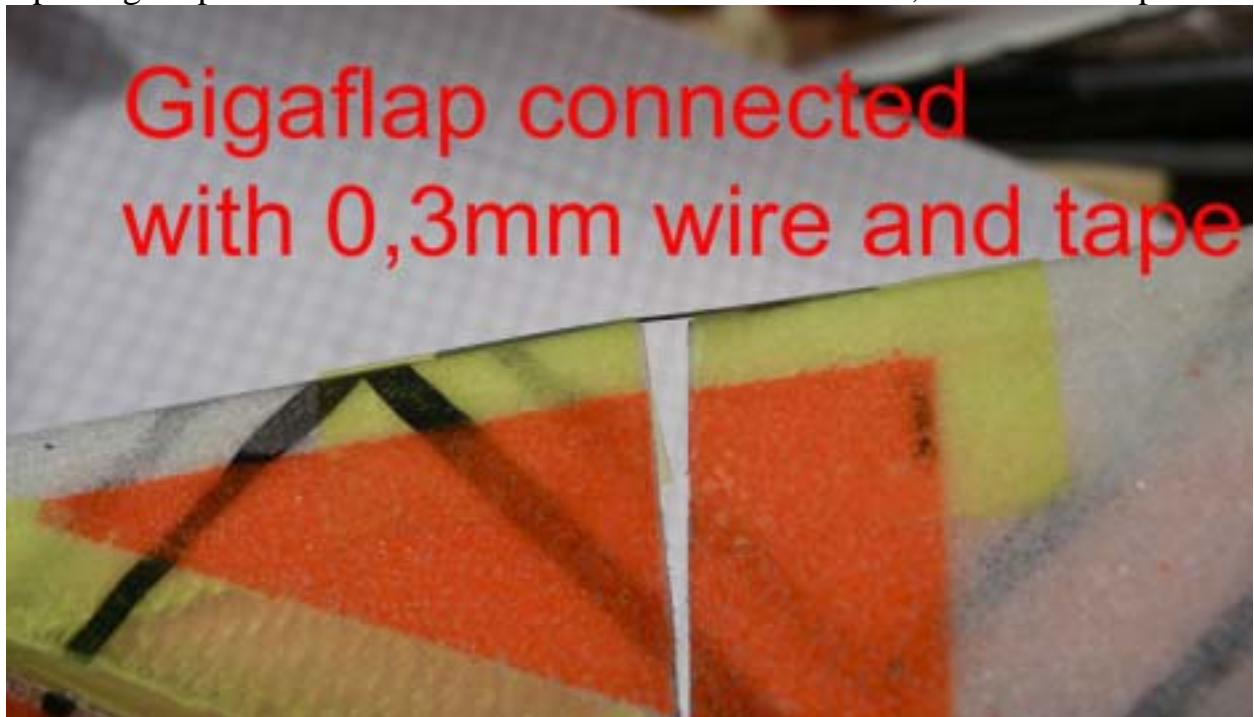
2. Wing

Aileron: You have to mill a little channel for the servo horns into the ailerons. The 1mm CNC-glas horns have to be adjusted (picture below). Take care that horn will be connected to top- and bottom side of the aileron. Glue it with some CA (middle). Afterwards mill as much as possible of the horn that only a small part looks out of the surface, by doing this you minimize aerodynamic drag.

ATTENTION: If you need a big deflection DOWN (brake) of the aileron, verify that hole for the pushrod is just above surface and hole of horn is around 1mm in front (in direction leading edge) of the turning point.



Gigaflaps: Gigaflap should be connected with aileron. Use some 0,3mm wire + tape.

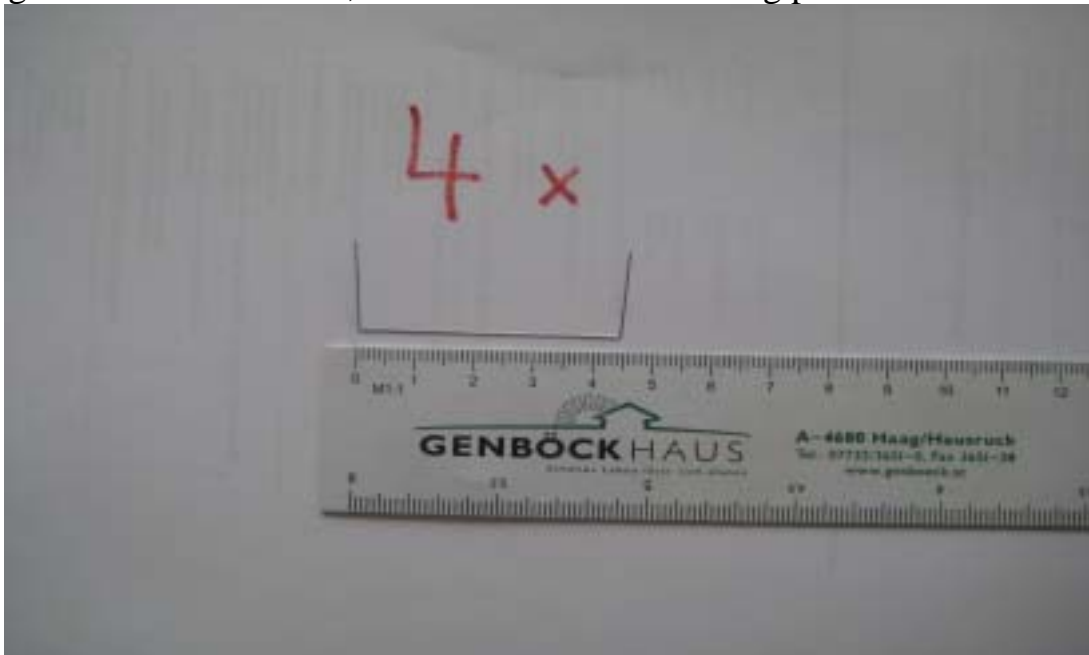


3. Vertical stabilizer fitting

At the inner area of tailboom fitting you have to sand it a little to make it fit. Then mill a little channel of 1mm width for the servohorn. Target: distance servohorn-hole to rudder turningpoint =6mm.



Torsionspring for stabilizers: Use 0,3 wire and bend it according pics below.



Spring position: see next picture. Those you have to put first in the moving-part of the stabilizer and fix it with some CA. Then spring must be twisted for 180°, put into stabilizer-part and glue it.
Attention: check correct spring-loaded side! = next picture!

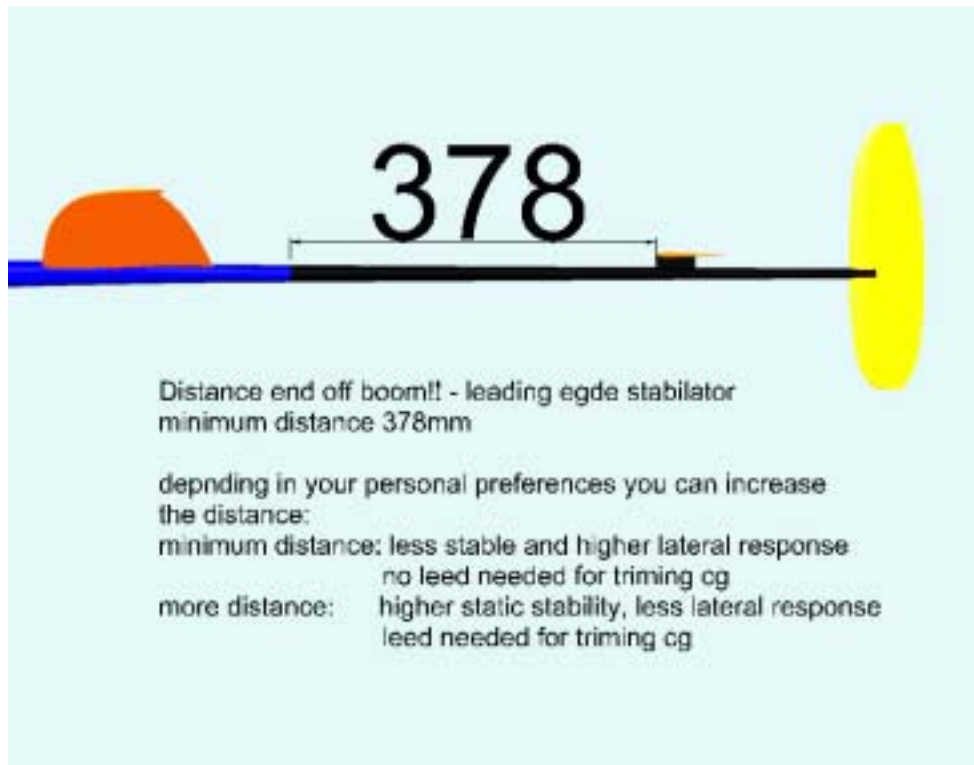
*Hor. Stabilizer: elevator pulls down
Vert. Stabilizer: rudder pulls left*



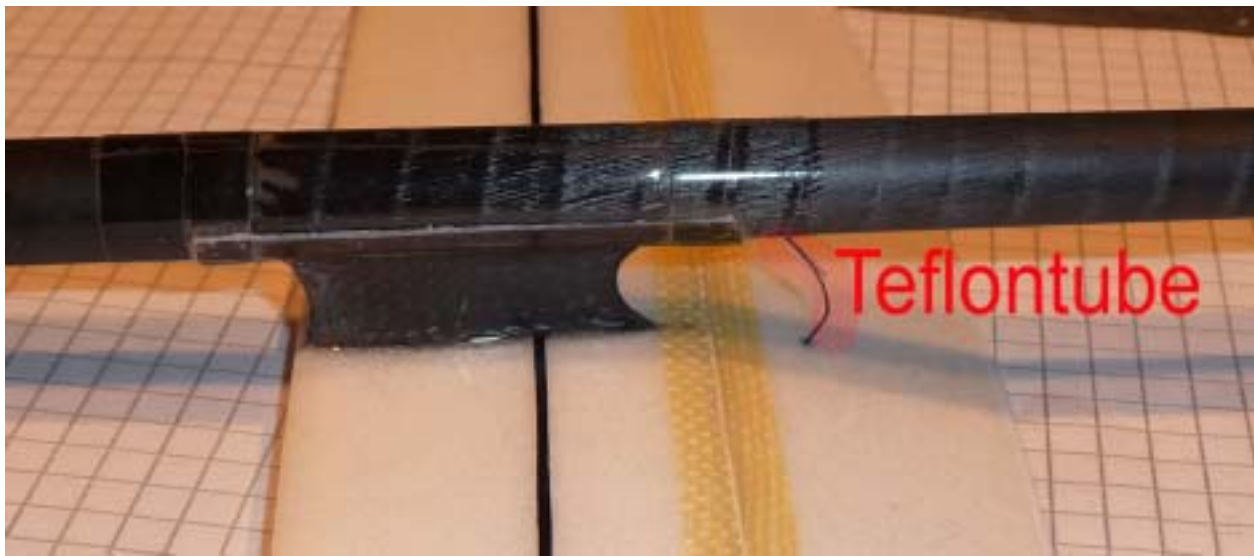
4. Horizontal stabilizer

If you follow the instruction carefully you will be able to change position hor. stabilizer afterwards necessary to balance your Ultegra.

Of course you also can glue small pylon permanent or you can experiment with different stabilizers positions.



Fix small pylon with some tape temporarily. Then drill a 1mm hole for the teflon tube. Now install Teflon tube in whole tailboom. Teflon tube should end about 20cm after the front end of the tailboom. That means you should see 20cm teflon out of front end.

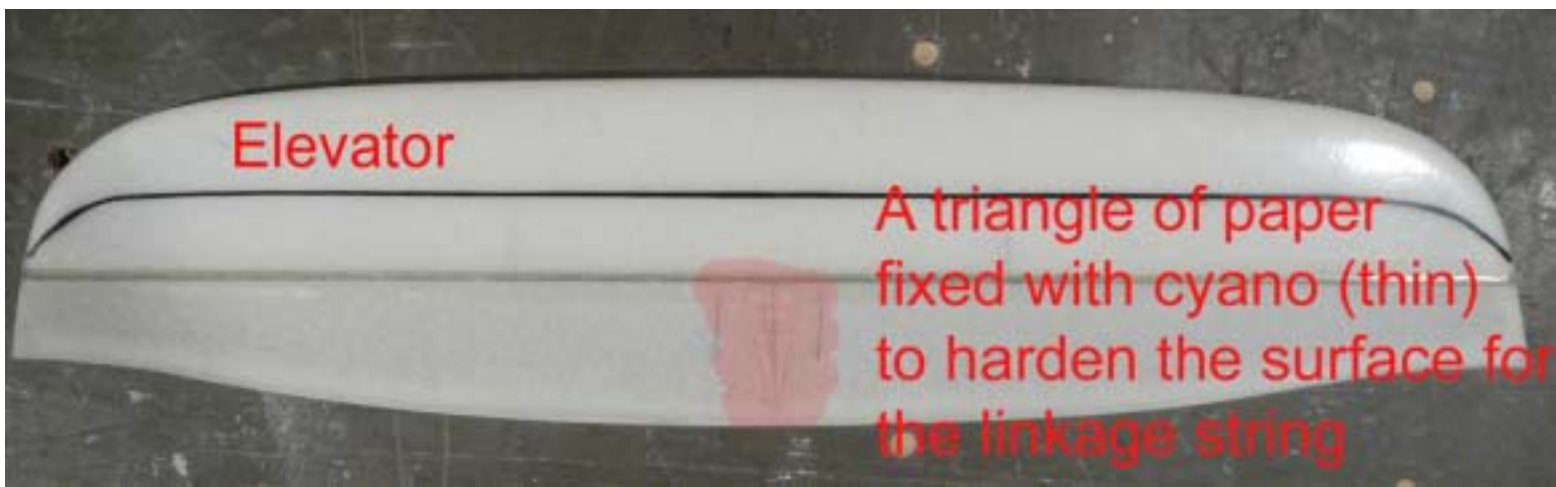


Teflontube



upper surface needs sanding

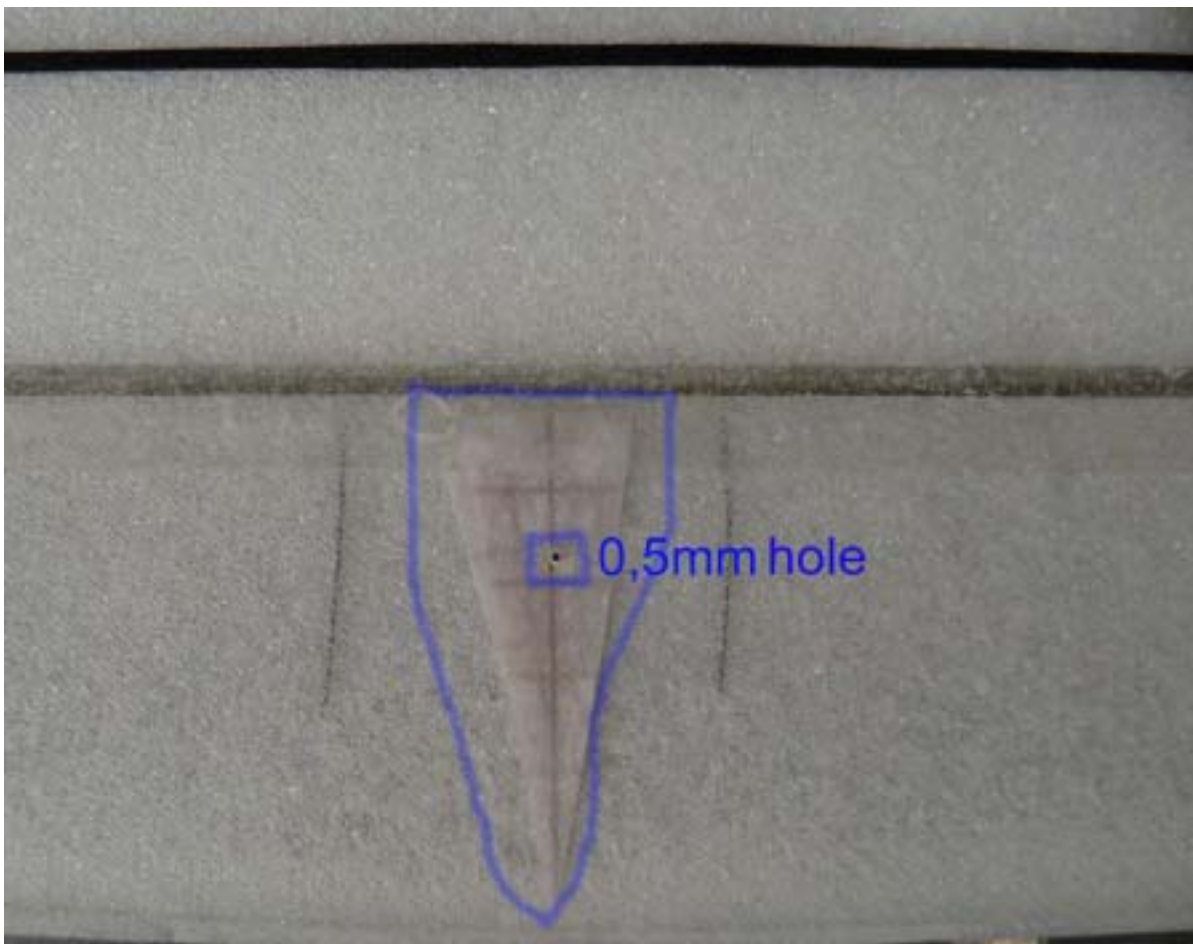
Fix a small piece of paper on bottomside of elevator.



Elevator

A triangle of paper fixed with cyano (thin) to harden the surface for the linkage string

Drill 0,5mm hole (Distance turning point – hole = ca. 1 cm)



Cut linkage string so that it begins 20cm before servos and ends 5cm aft end of stabilizer pylon. Afterwards slide string into teflon tube.

Stabilizer should be fixed with pylon now.



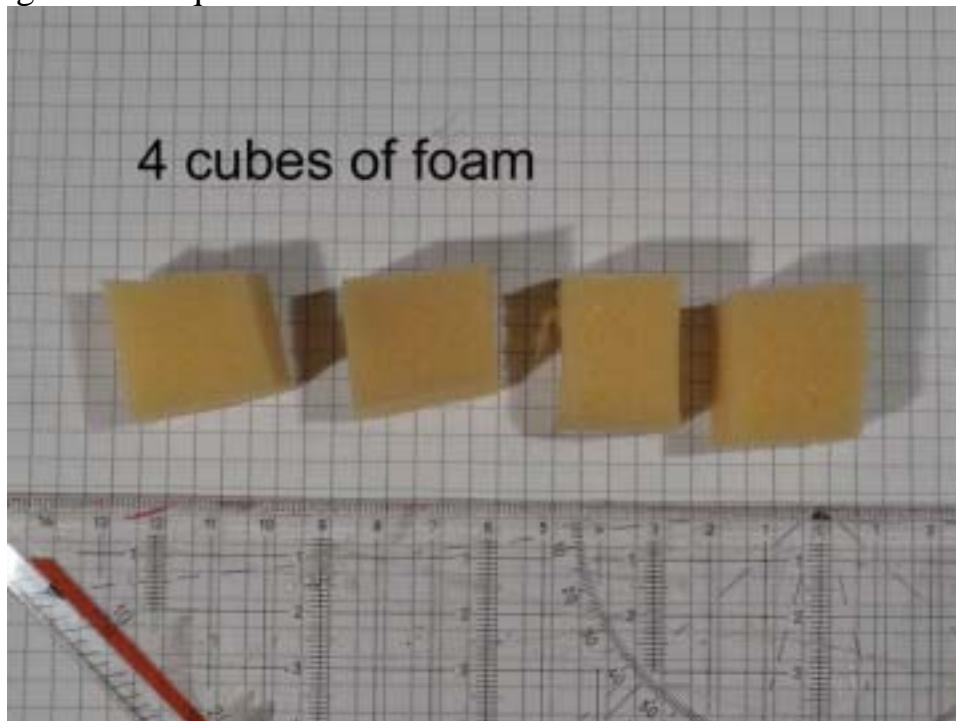
5. Vertical stabilizer installation - linkage

Glue stabilizer to end of tailboom (5min epoxy). Short part of stab. = down

Cut string same as before and slide it in the other teflon tube. Afterwards move teflon through the tailboom .



Before you connect tailboom incl. pushrods with fuselage perform following steps:
Prepare 4 small cubes of foam and press them in same distance from each other into tailboom.
First just before hor. stab., second 10cm front and so on. With them the teflons are stabilized especially during launch sequence.



Now tailboom & fuselage can be put together and the telfon tube incl. string can be installed through small openings in fuselage. There are 2 ways of fixing the tailboom - fuselage:

- glue with CA (thin)
- if you have really perfect fitting you can fix it with some windings of tape. Normally it is strong enough and if necessary you are able to change tailboom easily.

Use **0,8mm** wire and bend 2 small hooks (see below). Now bind small string with hook together. If servos and movingsurfaces are in neutral position you can interlock string with rudder and elevator. That means: radio on and servos in neutral position.





Here you can see pushrod string of elevator which is glued with CA (thin) on piece of paper.

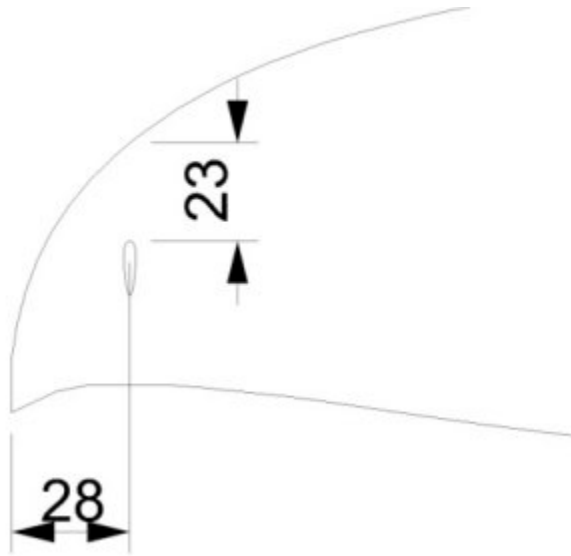


6. Canopy

It can be fixed with tape or you install a 0,5mm wire. If you so it should end 15mm out of canopy on both sides (front & back) . Battery (in nose) should be positioned with some foam around it to stabilize.

7. Throw peg

It can be installed right or left into wingtip. Mill small opening and glue it with 5 min epoxy.



8. Recommended components:

4x 350-400mAh NiMh batteries (GP350, GP400)

Receiver: Rex5 JETI, Penta Profi MZK, Alpha/Delta SCHULZE, FASST 607 FUTABA

Altimeter: LoLa (www.stratair.com)

9. Settings:

C.G.	64 mm
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All in mm(for ELE & AIL: - = up / + = down)					
<i>Flightphase</i>	<i>ELE</i>	<i>RUD</i>	<i>AIL</i>	<i>AIL Neutral</i>	<i>Combimix AIL->RUD</i>
Speed/Start	+9	+10	-15/+15	-2,5	0
Duration	+9	+10	-15/+15	0	+3
Thermic	+10	+10	-12/+15	+2	+5

Butterfly: AIL +25 up to +30mm down, ELE +4 up (Turning in flight) Snapflap (ELE->AIL): 2mm down

10. Content:

- 1x carbon fuselage incl. canopy
- 1x carbon tailboom
- 1x wing „Disser“ incl. 2 x D 47 und 2 x D 60 servos
- 1x carbon hor. Stab. pylon
- 1x full molded hor. + vert. stabilizer
- 1,2m servicable 0,14mm²
- 2 Stk. dual connector
- 4 Stk. connector
- 5cm shrink sleeve (diameter 7mm)
- 4x 10cm wire 0,3mm
- 3x 10cm wire 0,8mm
- 4 Stk. cnc horns
- 2 Stk. teflon tubes 0,7mm
- 2,5m string 0,3mm

Echte Wettbewerbsmodelle von STRATAIR

1491

178

28

1187

314

277

21

6.0

F3K Ultegra

Thermikgierig
Schnell
Wendig
Leicht