

Thanks for purchasing the kit designed especially for flying the RCEP (F5D - 400) Pylon Racing cathegory. The kit is manufactured using an state-of-art sandwich technology.

## For finishing the kit you need (not included in the kit):

sharp knife, scissors, cyanoacrylate glue, thermoplastic glue and the appropriate heating gun, drill, needle files, screwdriver

## For flying you need (not included in the kit) :

RC set, 3 channels minimum

Motor: Speed 400 (6 V)

Accus: 7 x Sanyo 500 mAh

Speed controller: any one suitable for the motor control

Propeller: 5.2x5.2 (13x13 cm)



## RC functions:

Butterfly tail – elevator only

Ailerons

## suggested servo:

1 x micro servo

1 x micro servo

„Hitec 55“

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## List of parts supplied in the kit :

1. composite fuselage
2. composite wing
3. fuselage bottom cover
4. alu spinner
5. accessories
6. building instructions

## Specifications :

Length 555 mm

Wingspan 832 mm

Wing area 6.58 dm<sup>2</sup>

Total flying weight 380 g

Wing loading 57.75 grams per dm<sup>2</sup>

Motor Speed 400 (6 V)

Airfoil MH 24



## Design features:

**Fuselage** - a combination of glass, carbon and kevlar fibre composite in acrylic paint finish

**Wing** - crescent-shaped leading edge, manufactured using an state-of-art sandwich technology with carbon fibre spars, finished in acrylic paint.

## WARNING!

You are fully responsible for safety when using this model. Improper use of this product can lead to bodily harm or property damage. Fly it far enough from the built-up areas. Be sure nobody else uses the same frequency as you do. Do not leave the model in a space with a high ambient temperature, such as inside a closed car or in the direct sunlight. The temperatures above 40 degrees Centigrade (104 deg F) can decrease the strength of some parts. For persons 14 years old and above. To be used under a supervision of an adult.

## FINISHING THE KIT

The kit is not suitable for the beginners, the workflow can be modified as required according to one's experience.

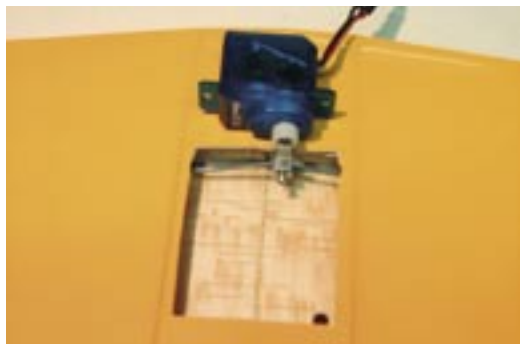
### WING



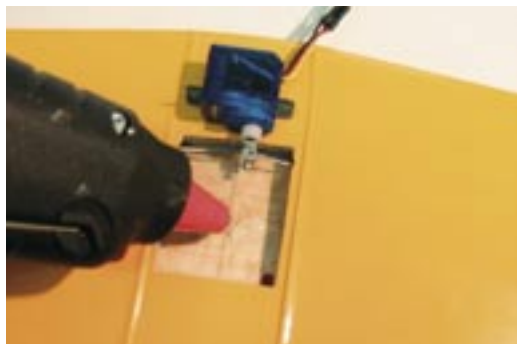
1. Attach the coupler (blimp) to the servo horn using the QuickLock washer (supplied in the kit accessories)



2. Look for the marks on the pushrods and the spar inside the wing opening; they should be in line to get the middle of the servo movement.



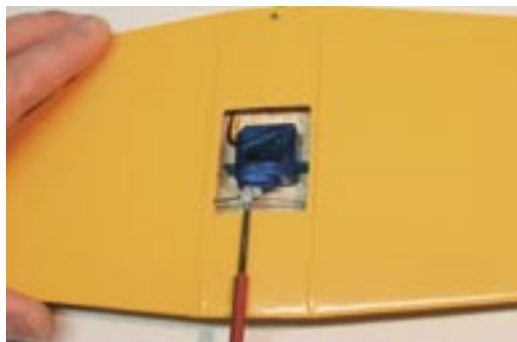
3. Align the servo to the pushrods as shown.



4. Apply the heated glue.



5. Glue the servo in place.



6. Tighten the screw to fix the pushrods.



7. Thread the servo cable through the opening in the wing.



8. Drill the holes for the horns in the ailerons. Use the horns with 0.8 mm holes (find the proper ones in the accessories supplied).



**9.** Glue the aileron horns using cyanoacrylate.



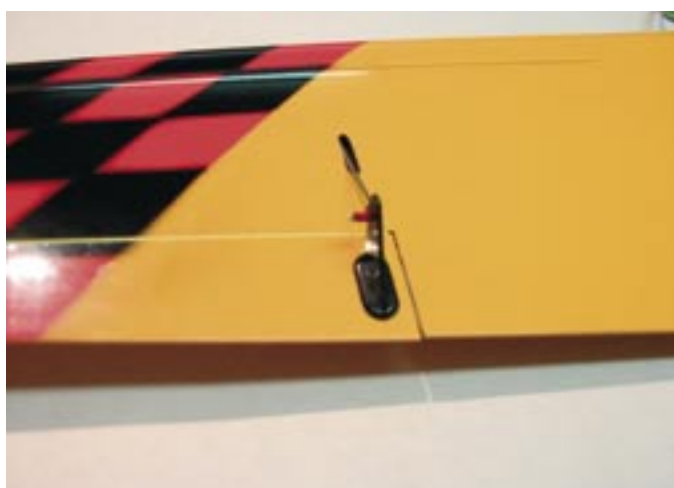
**10.** Make a mark where to bend the pushrod.



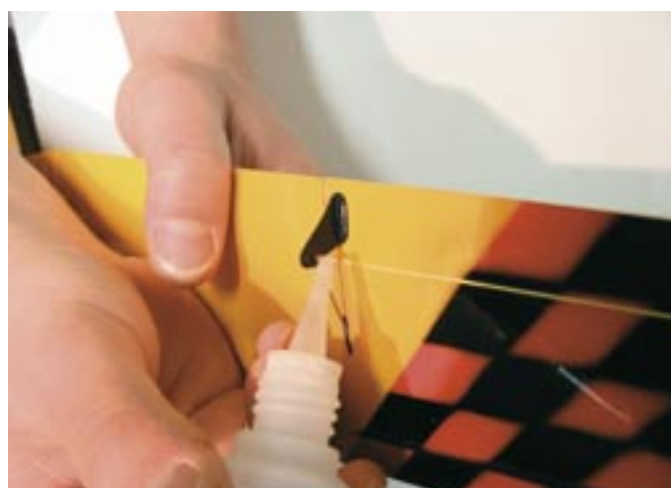
**11.** Bend the pushrod using the pliers.



**12.** Shorten the bent pushrod as required.



**13.** Insert the pushrod into the horn and slide a piece of spaghetti insulation on the end.



**14.** Carefully fix with a drop of cyanoacrylate.



**15.** Mark the outlines of the holes for the motor fixing screws and the motor and the battery cooling air inlets.



**16.** Mark the outline of the cooling air outlet.



**17.** Mill / file the holes for the motor fixing screws and motor cooling air.



**18.** Mill / file the hole for the battery cooling air.



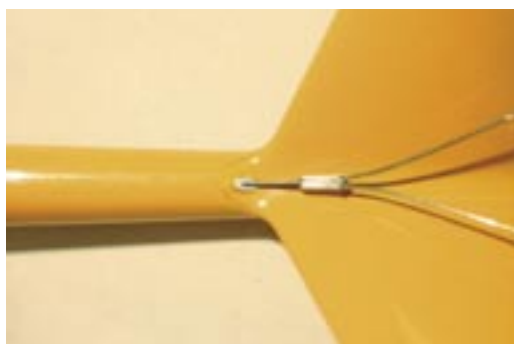
**19.** Mill / file the opening for the cooling air outlet.



**20.** Drill the hole for the elevator pushrod.



**21.** Drill the hole for the antenna.



**22.** Pull the guide tube into the fuselage and glue in place using cyanoacrylate. Don't let the glue into the tube.





**23.** Carefully glue the other side of the guide tube into the fuselage.



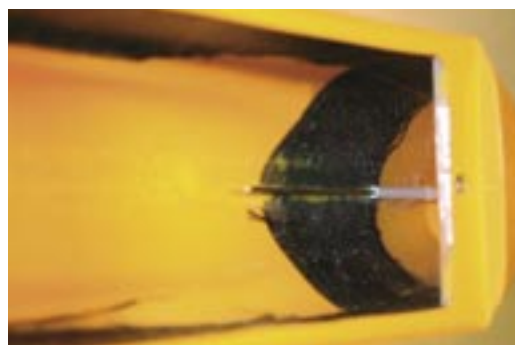
**25.** Drill the holes for the horns in the butterfly tail control surfaces. Use the horns with 0.6 mm holes (find the proper ones in the accessories supplied).



**27.** Using the pliers bend one pushrod, check the equal position of both control surfaces and bend the second pushrod. Finally fix both pushrods in the same way as the ailerons.



**29.** Drill the hole for the subsequent tightening of the pushrod fixing screw.



**24.** Check the free movement of the pushrod.



**26.** Glue the horns and insert the pushrod.



**28.** Glue the servo tray (supplied in the accessory package) using cyanoacrylate.



**30.** Apply the heated glue and fix the servo.



**31.** Glue the speed controller tray (it comes with the accessory package). Ensure that you have enough space for the future motor installation / replacement.



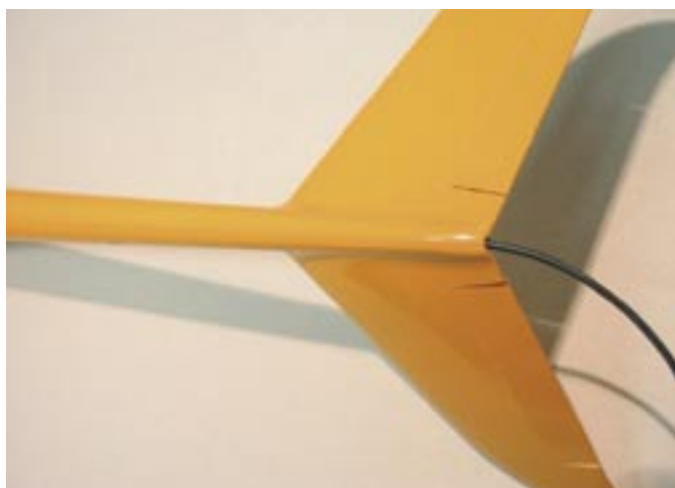
**32.** Install the motor.



**33.** Insert the controller below the tray as shown (fuselage upside down).



**34.** Install the propeller and the spinner (the spinner is a part of the accessory package). It might be necessary to cut the axle for some motors.



**35.** Pull the antenna through the fuselage and through the aperture in the extreme tail.

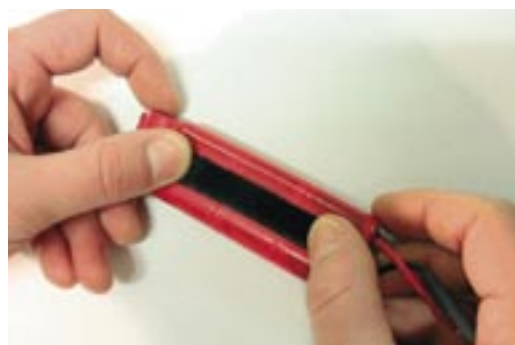


**36.** Insert the receiver next to the servo and fix it there.

## FINISHING, BALANCING AND SETTING THE THROWS



**37.** Glue one side of a velcro strip to the wing using cyanoacrylate.



**38.** Glue the other part of the velcro to the accu pack.



**39.** Attach the accu pack to the wing.



**40.** Insert the leading edge of the wing into the fuselage and close the wing.



**41.** View of the wing inserted into the fuselage from the bottom.



**42.** Cut the proper opening in the cover to accept the servo.



**43.** Trimmed cover.



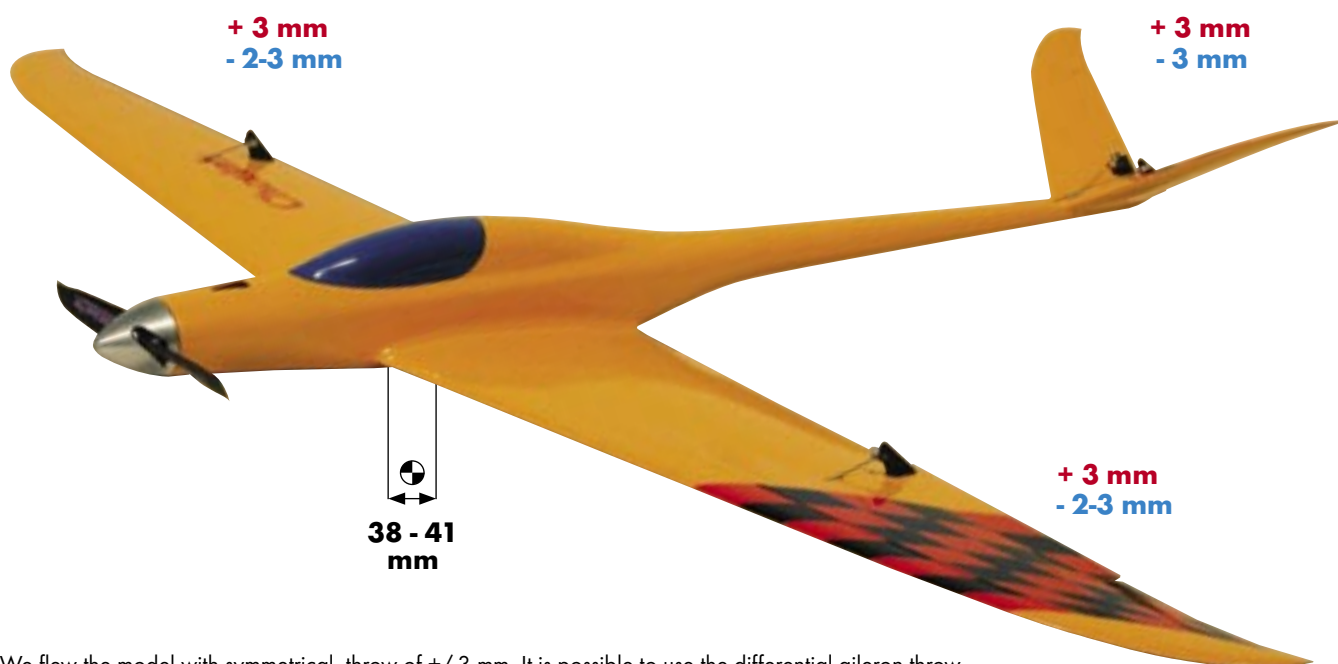
**44.** Lay the cover down to the wing and fix everything together using a plastic M3 bolt from the accessory package



**45.** Find and glue together the parts of the stand used to balance the model.



**46.** The CG position is marked on the bottom of the wing (39 mm behind the leading edge), the limits are shown below. Balance the model by moving the accu pack.



**47.** We flew the model with symmetrical throw of  $\pm 3$  mm. It is possible to use the differential aileron throw.

## TEST FLYING THE MODEL

There is nothing exceptional on test flying this model, but never try to test fly with the motor switched off!

1. Check the CG position, the control surfaces throws and the function of the motor. Because of the higher wing loading it is a good idea to ask a colleague to launch the model for you.
2. Switch the motor on and launch the model with a powerful swing, approximately 40 degrees up, always against the wind.
3. Once in level flight, trim the model according to your requirements.
4. Because of the higher wing loading, always mind the minimum speed during the landing manoeuvres.

The kit is not suitable for the beginners, an experience and continuous attention are required for successful flying!

Have a lot of fun and many happy landings with the Cheetah kit!