BRAVADO

INSTRUCTION MANUAL



DURAFLY®

Features of the Bravado

1. 'AirCore' construction resulting in both a lightweight, yet strong structure.
2. Powerful set-up as standard for hardcore 3D and aerobatic performance.
3. Quick and easy assembly with minimum parts count.
4. Clean airframe design with easy battery access and generously sized control surfaces.
5. Made from durable and easy to maintain EPO foam and with spare parts readily available.

Specifications

Wingspan: 1000mm (39.4 in.)
Flying Weight: 700-780g (1.5 -1.7lbs)
Motor: 2814 Kv1000
ESC: 40 Amp
Servo: 4 x Turnigy TG9d 9g digital servo's
Radio : 4/more channel
Receiver: 4/more channel
Battery: 3 cell 1000-1300mah lipo 25c min (required)
Prop: 11x
Recommended Environment: Outdoor/large indoor area.
Assembly Time: Less than 1 Hour

Examine your kit carefully

Durafly model kits are subject to QC checks throughout production, and we sincerely hope that you are completely satisfied with the contents of your kit. However, before assembling, we ask that you check all parts against the parts list. If you are missing any parts, please contact Customer Services via hobbyking.com. Also check for any damage to the any item within the box. Your model has travelled a long way, and in some case could have sustained some damage. If you feel the damage is beyond ressonable repare, please contact CS.

Please note:
We are constantly working on improving our models, therefore every model is subject to change without notice.

Caution!

This is a sophisticated hobby product and is NOT a toy. It must always be operated with caution, common sense and some basic mechanical ability. This manual provides instructions as the the assembly, safe opperation and maintainence of this hobby product. It is highly reccommneded that you follow and read fullythe instructions and warnings stated in this manual including, safety, assembly, set-up and flying guidelines in order to operate this product correctly and avoid damage or serious injury.

Do not fly under the conditions below

- Strong winds (more than 20pmh)
- Other storm like conditions
- Area close to high voltage wires
- Area with high density population

Cautions for flying

While parks make excellent flying areas, make sure you have permission to fly there and follow safety guidelines set by local authorities.

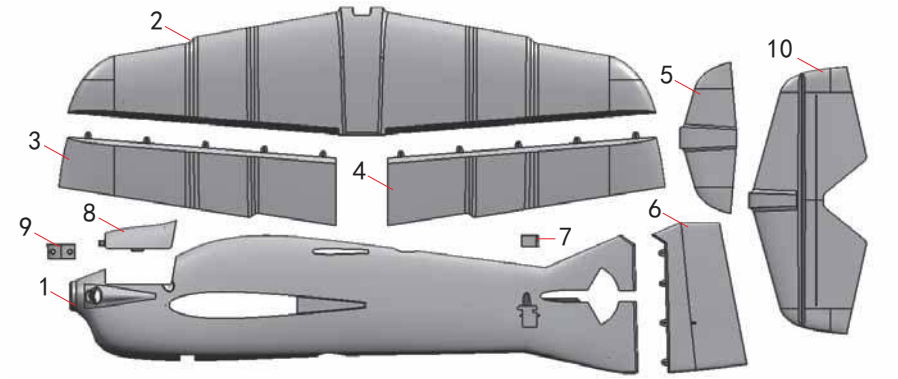
Note for Storage

- Never leave you flight battery installed in the model when storing.
- If hanging the model, ensure the control surfaces are not taking the weight of the model.
- Store away from direct sunlight and ideally at room temperature.
- Secure your model for storage incase it moves and gets damaged.

Tools:

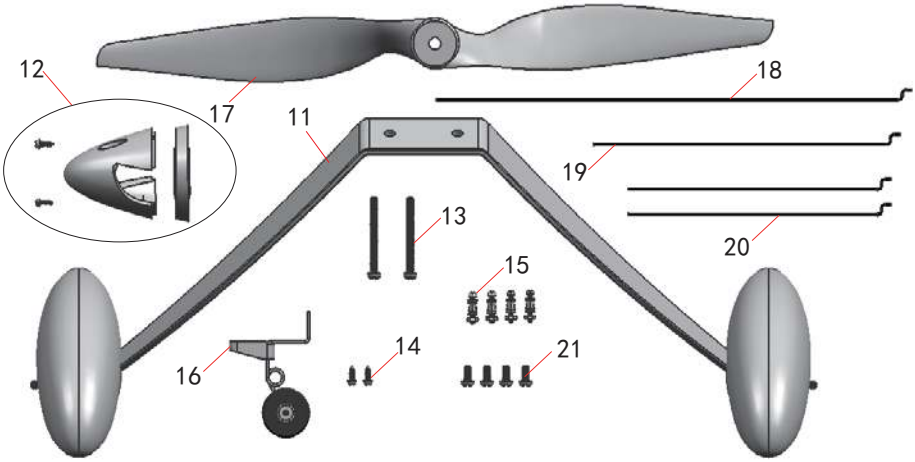
Required: Scissors, Balsa knife, Combination pliers, Screwdriver, Quick-dry glue

Foam parts included in the packing



1. Fuselage
2. Wing
3. Left aileron
4. Right aileron
5. Winglet
6. Rudder
7. Rudder bolt
8. Canopy
9. Landing gear slice
10. Stabilizer

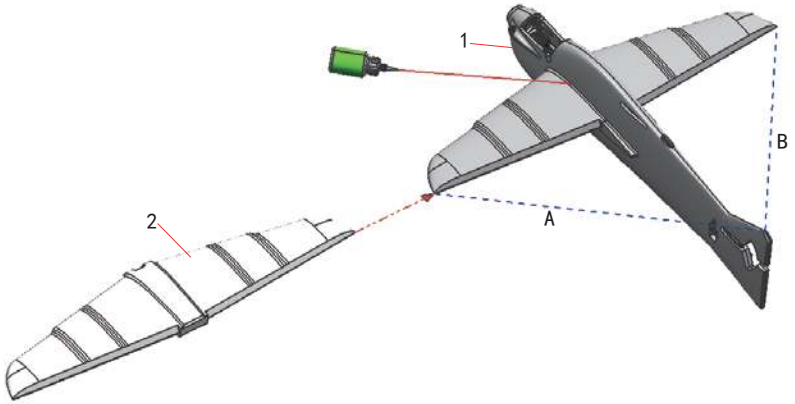
Parts included in the packing



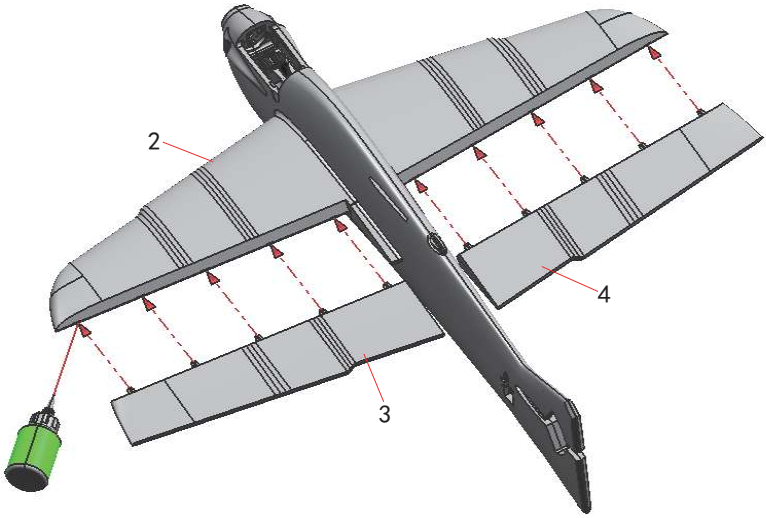
11.Landing gear
12. Spinner
13. Screw (M4*30)
14. Screw (M2*5)
15. Adjustor
16. Tail wheel
17. 1155 propeller
18. Rudder pushrod (φ1.2 piano wire)
19. Elevator pushrod (φ1.2 piano wire)
20. Aileron pushrod (φ1.2 piano wire)
21. Screw (M3*8)

Assembly steps

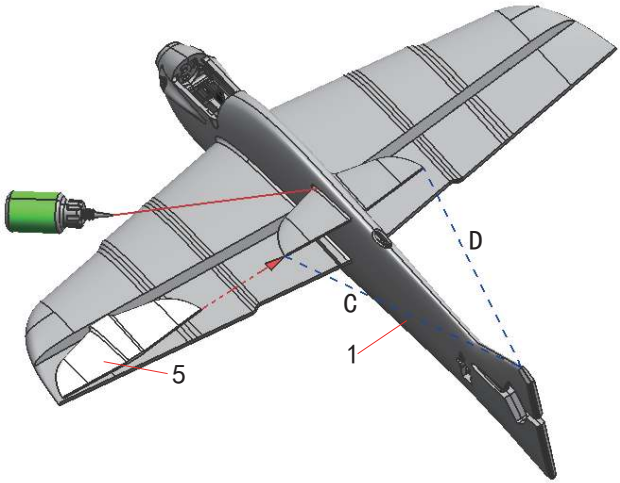
1. Aseembly begins with the wing (2) and fuselage (1). Incert the wing panel into the slot in the fuselage and glue in place. Insure that distance A is equal to B.



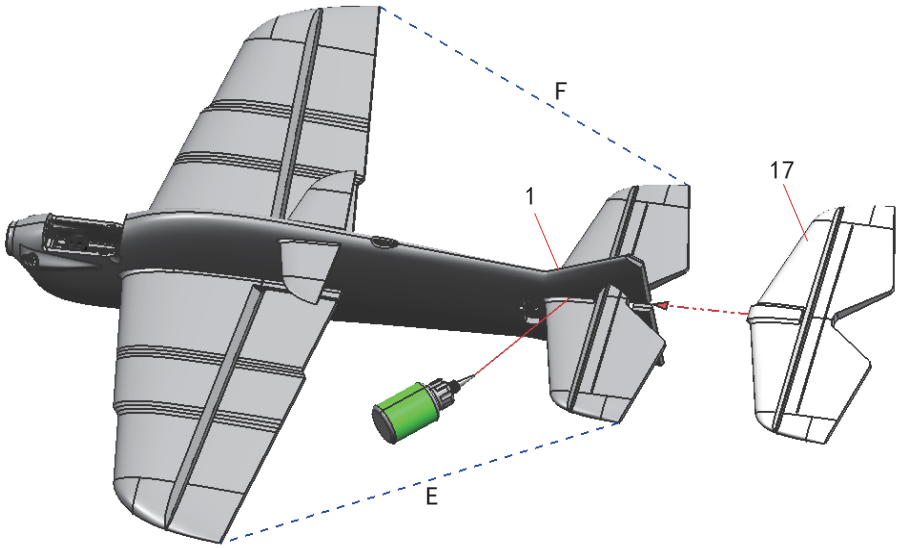
2. Hinges (4 for each side) can now be glued into the pre-cut slots of the trailing edge of the wing (2). Once dryed you can then glue the ailerons(3&4) to the hinges.



3. Insert the fuselage winglet (5) into the upper fusealge slot and glue in place.
   Ensure distance C is equal to D.

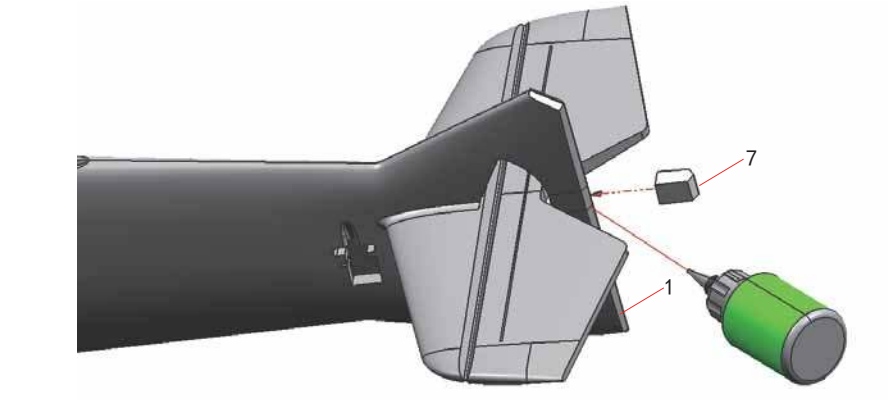


4. The horizontal tail (17)can now be glued in place at the rear of the fusealge asr shown.
   Ensure distances E and F are equal and that the tail is horizontally level.

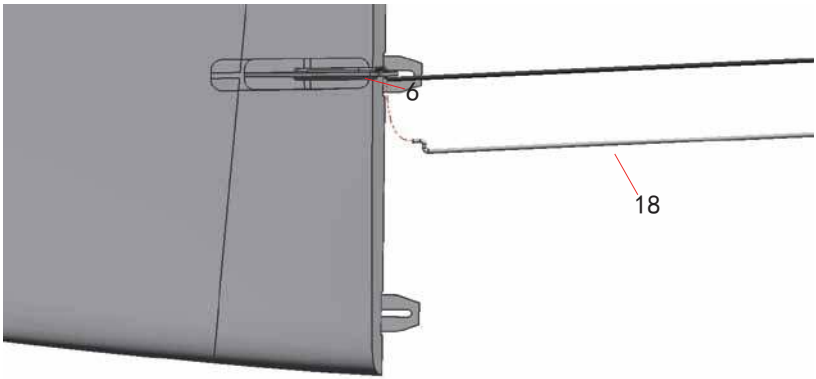


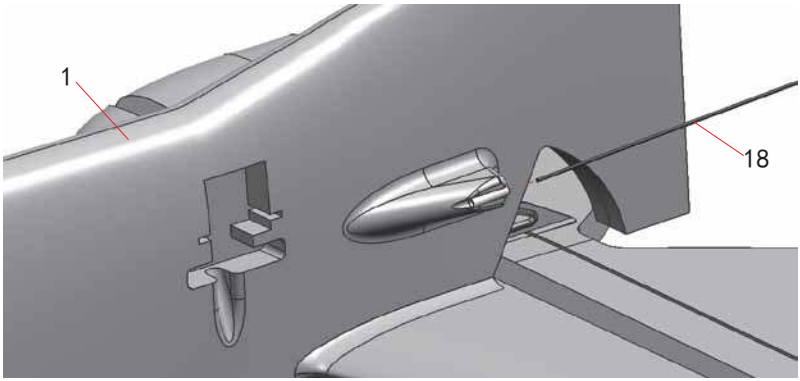
Fuselage Assembly

5. Place vertial trailing edge insert (7) into pre-cut slot at the rear of fuselage, then fix with glue.

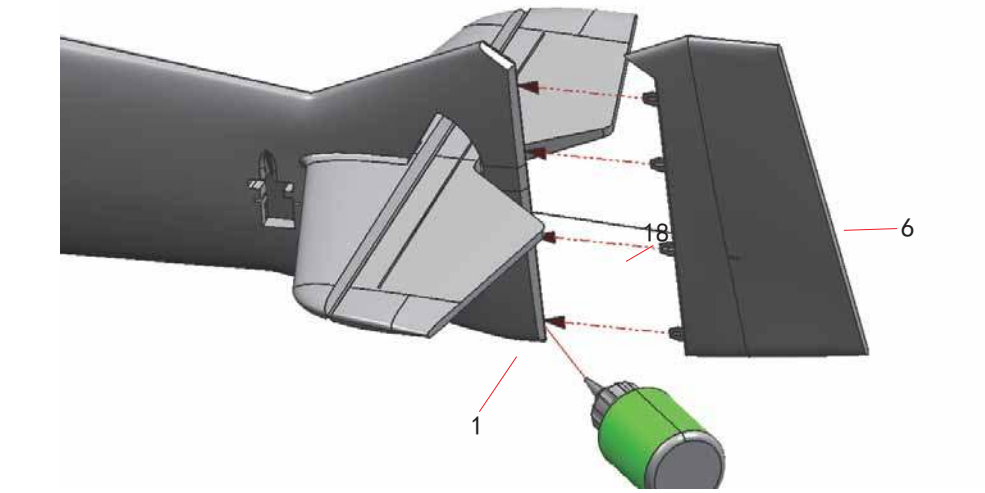


6. Connect Z bend (18) to servo control horn on rudder (6), then push pushrod into pushrod tube.

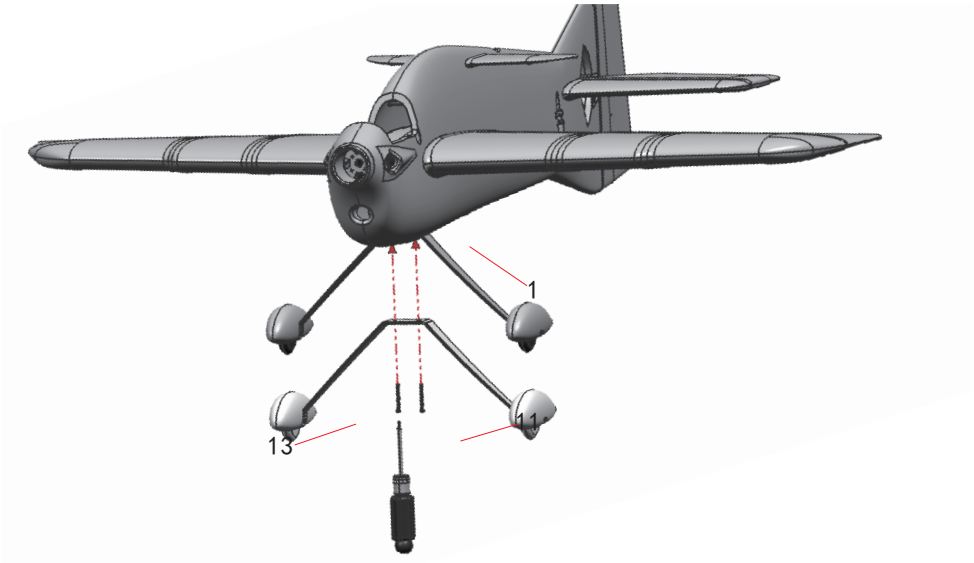




7. Glue 4 hinges into the rudder (6) then glue the rudder to the vertical tail (1) as shown below.



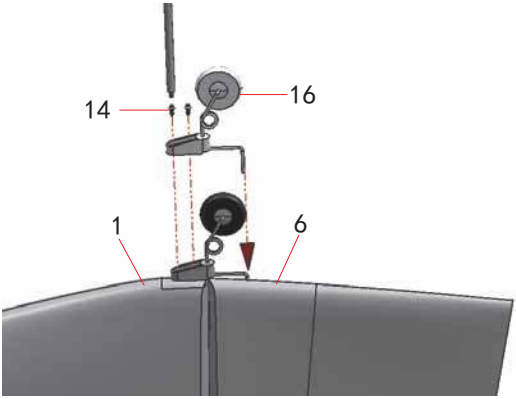
8. With the rudder in place the landing gear (11) can now be installed. Locate the supplied M4x25mm bolts (13) and secure to the fuselage (1) using a screw driver as shown.



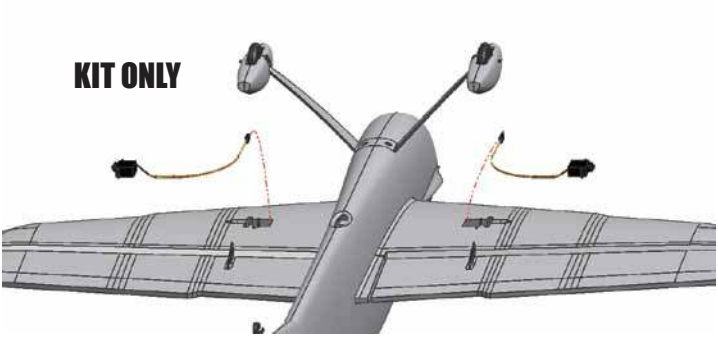
9. Once the landing gear (11) is secured, the gear foam cover (12) can be installed as shown with just a small spot of glue.

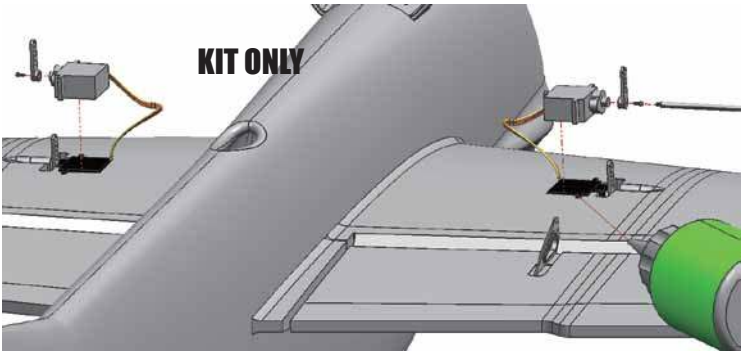


10. Locate the tail wheel assembly and install as detailed below using the supplied M2x5mm screws.

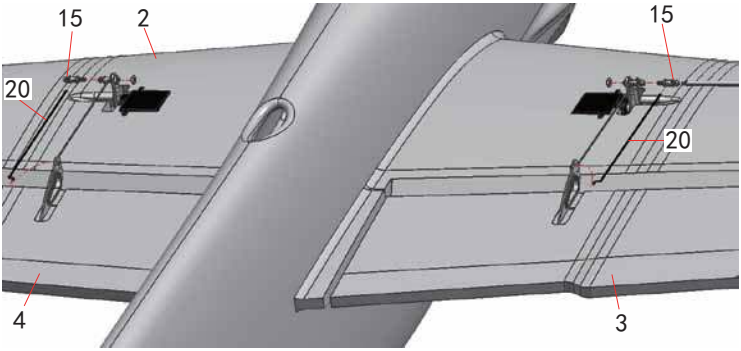


11. Install your 9g servo's of choice into the molded pockets on the underside of the wing by guiding the wires through into the center of the fuselage and securing in place with some glue as shown below.



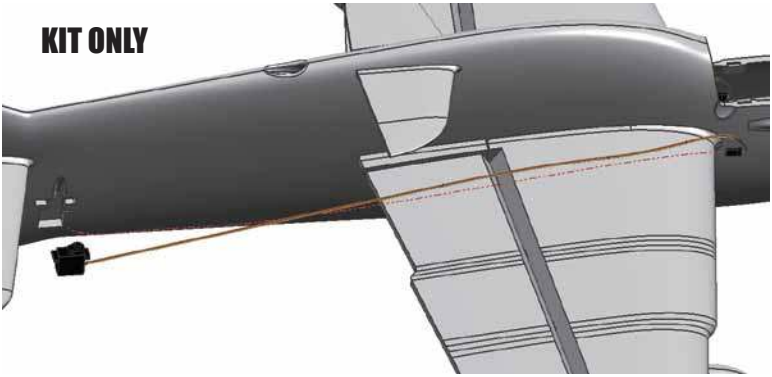


12. Glue the aileron control horn in place and connect the Z bend push rods (20) as shown. Ensure that your servo horns are at 90 degree's to the wing at this stage.

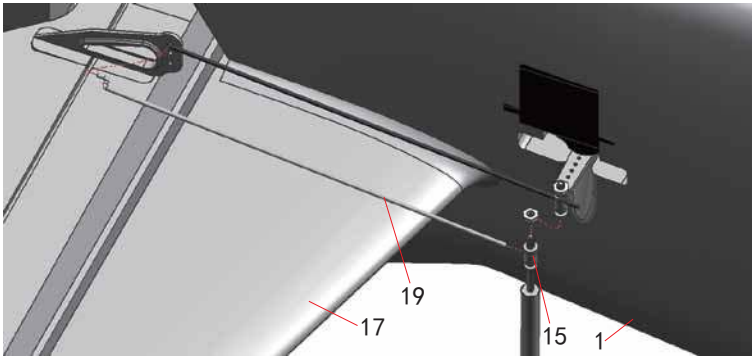


13. Your 9g rudder and elevator servo of choice can now be glued in place in the pre-molded pockets on either side of the rear fuselage. NOTE, you must ensure your servo leads are long enough to reach the front of the model, you may need to add extension leads so please check.

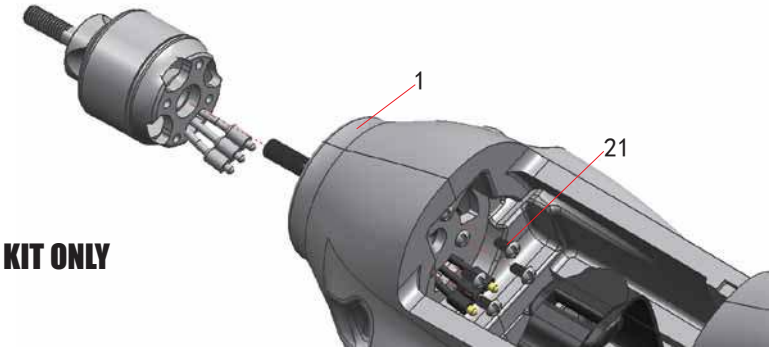




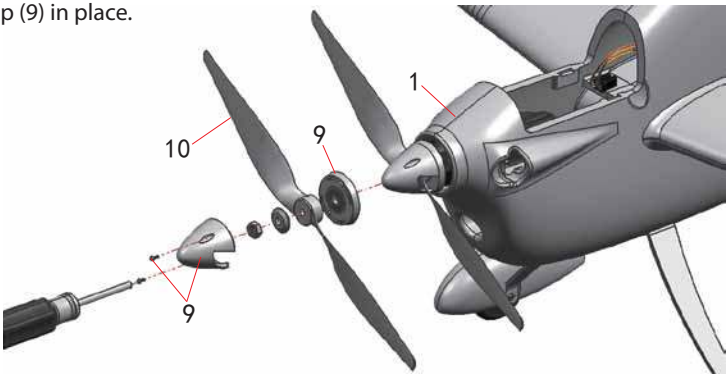
14. Both the rudder (not shown) and the elevator push-rod Z bend and control horn can now also be install just as before. Again ensure your servo horn is at 90 degree's to the fusealge.



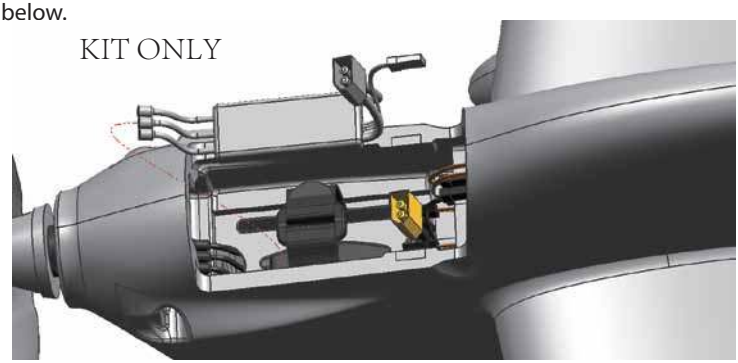
15. Install your choice of 2814 class motor onto the firewall as show below. It is suggested that thread lock be used.



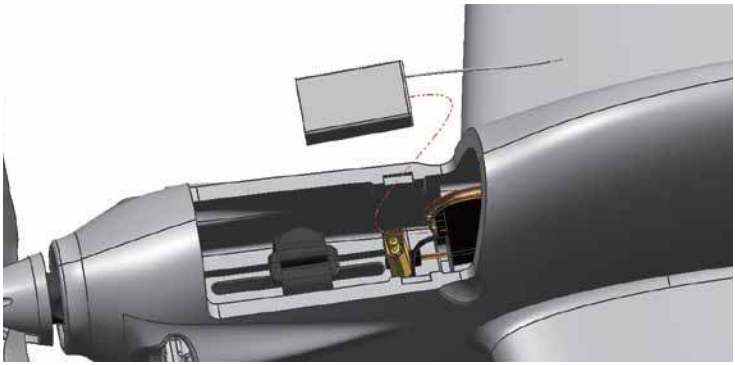
16. Locate the spinner assembly and first slide the spinner back plate (9) on the motor shaft followed by theprop (10), washer and nut as shown. Firmly tighen the nut and finishby screwing the spinner tip (9) in place.



17. Install your 30-40amp ESC of choice in the nose of the fuselage under the plastic battery tray as detailed below.



18. Connect servo wires to coorisponding channels of your receiver and install directly behind the battery tray on top of th wing center section. Secure in place with velcro.



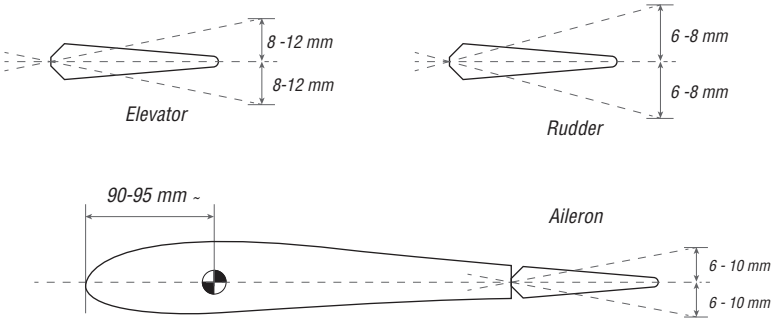
Assembly of your Durafly Bravado is now complete. Before you move onto the final set-up of the model, we suggest you perform a final check on all screws, bolts and components to ensure all are secture and firmly in place.



1. With your receiver installed and all servos plugged into their corresponding channels, connect the flight battery to the ESC to power up the model. With the model now armed, ensure all servo's are centered and all control surfaces are level. If not, adjust by turning the control clevis's by hand accordingly until the control surfaces are level as shown.

Note: For saftey reasons, it is advised that this is done with the prop removed from the model.

Control throws:

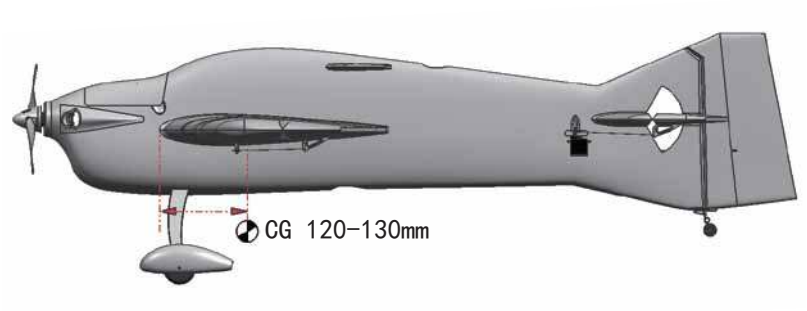


** Elevator 'low rates' 15mm 'high rates' 30mm in either direction from neutral. (travel, 120% up and 100% down)*

** Aileron 'low rates' 10mm 'high rates' 15mm in either direction from neutral.*

** Rudder 'low rates' 15mm 'high rates' 25mm in either direction from neutral.*

Center of Gravity



The centre of gravity (CG) should be at a position of 120mm-130mm away from leading edge, please refer to above picture.

With assembly and set-up now complete your Durafly Bravado should now be ready for flight. However we recommend you read and follow the advice given in thefollowing stages of this manual before flying your model.



MODEL FLYING PRECAUTIONS:

- Select your flight area carefully. Always choose an open space that is unobstructed from trees and buildings and away from crowded areas. Avoid flying in area's with roads, electric/telephone poles/wires and water near by or within close proximity to full size air traffic.

- Do not fly this model in poor weather. High winds, low visibility, inclement temperatures, rain and storms are to be avoided.

- Never attempt to catch this model whilst in flight. Even a slow moving model can cause harm to yourself and/others and risks damage to the model

- This model is recommended for children no younger than 14 years old. All children, no matter what age, should always be supervised by a capable and responsible adult when operating this model.

- Always unplug your model battery when not in use. Never leave the battery installed in the model.

- Remember to keep clear of the propeller at all times when your flight battery is connected.

- Before flying, always turn on your transmitter first then plug your flight battery into the model.

- After flying, always unplug your flight battery first then turn off your radio transmitter

- Exercise caution when charging your batteries and follow in full your battery manufacturers safety guideline when doing so

Spare parts

Winglet
9095000104-0



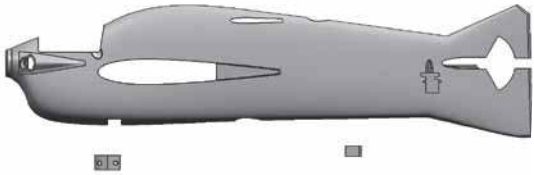
Canopy
9095000115-0



Rudder
9095000106-0



Fuselage
9095000102-0



Stabilizer
9095000105-0



Landing gear
9095000107-0



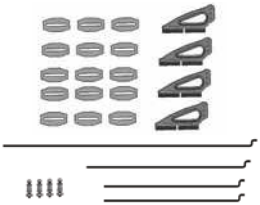
Tail Wheel
9095000108-0



Spinner
9095000107-0



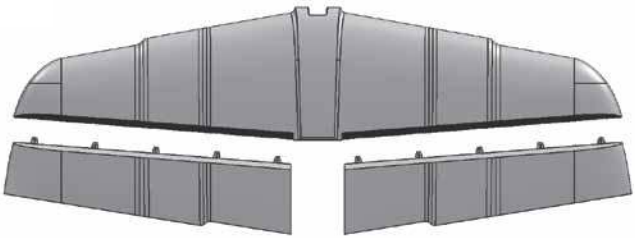
Control accessories set
9095000116-0



Sticker Set
9095000113-0



Wing
9095000103-0




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