

# Blaster 3 Assembly Guide

from

# Hyperflight

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#### Warning, this is not a toy!

Hypen If you are new to the hobby of flying RC model airplanes, DO NOT attempt to fly this model by yourself! There are hundreds of BMFA (British Model Flying Association) clubs in the UK. Ask your local hobby shop for the location of the nearest club in your area, or check out the www.bmfa.org.uk (or your national modelling organisations) web site. Many clubs often have gualified instructors to teach you how to fly. If you are an accomplished pilot then you should have no problem in flying this model. However the Blaster 3 can fly very fast, and is potentially a lethal object. Do fly responsibly, and make sure your third party liability (eg BMFA) insurance is valid.

# Limit of Liability

All Vladimir's Models products are constructed to the highest standard and made strong enough for reasonable usage by an experienced and responsible r/c aircraft pilot. By keeping this model you confirm that the parts have not been structurally damaged and are fit for purpose as received.

The craftsmanship, attention to detail, and actions of the builder/flyer of this model airplane kit will ultimately determine the airworthiness, flight performance, and the safety of the finished model. You confirm that you take full responsibility for the safe usage, construction, and maintenance of the model, and you will not hold HyperFlight.co.uk or its owners, staff, agents, contractors, or helpers in any way responsible for any damages or injury that may occur as a result of operating or flying this model. HyperFlight's sole obligation shall be to replace those parts of the kit proven to be defective or missing. If you are not willing to agree to this bindingcondition of sale please return the model in as-received condition to Hyperflight for a refund.

#### Acknowledgement

We would also like to thank Vladimir Gavrylko for designing and building this model to such a high standard, for and manufacturing it at a reasonable cost, so that flyers all over the world can enjoy this high performance model. We also pay our respects to Dr Mark Drela, the designer of the DLG optimised airfloils, and inspiration behind many of the innovations that make this model so special.

## Research

We recommend you do some research before starting to build this plane. There is a lot of great info about RC planes on the <u>RCGroups.com</u> Hand Launch forum and the <u>flyquiet.co.uk</u> F3K forum. Get the latest info on batteries, r/c gear, building and flying tips. There is often a "build thread" on <u>www.RCGroups.com</u> where you can see many pictures your model and read the questions/answers of other pilots that already built one. (eg http://www.rcgroups.com/forums/showthread.php?t=1321829 and http://www.flyquiet.co.uk/smf/index.php?topic=2537.0)

Make certain you check out www.HyperFlight.co.uk regularly for any product information updates.

### Parts and Materials List

#### The Blaster 3 kit includes the following parts:

- 1) Wing
- 2) Fuselage
- 3) Nose cone
- 4) Horizontal stabilizer
- 5) Launching peg
- 6) V-mount
- 7) Vertical stabilizer
- 8) Aileron control horns
- 9) Rudder control horn

10) Front wing mounting screw M3x8 (2 pieces, 1 spare) 11) Rear wing mounting screw

M3x6 (2 pieces, 1 spare) 12) Horiz. Stabilizer washer (2

- pieces, 1 spare) 13) Clevises
- 14) Aileron pushrods
- 15) Rudder & elevator pushrods
- 16) Pushrod sleeves (2 pieces)

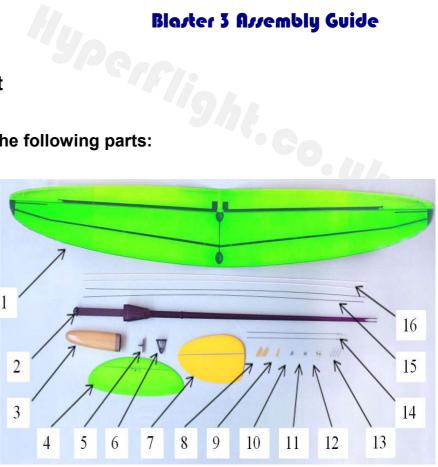
#### **Recommended Radio Equipment**

SmartLipo 450 or 650 battery or other 20g battery compatible with your receiver. Micro receiver, eq Spektrum AR6250, AR6255\*, AR6100e, Futaba R6004FF, Jeti Duplex R5, Schulze Alpha-535

Four 9 or 11mm thick servos, eq Hyperion DS09-AMD or DS09-SCD or Futaba S3156MG or Dymond D47 or Ripmax SD150

#### Materials Needed to Assemble the Blaster 3

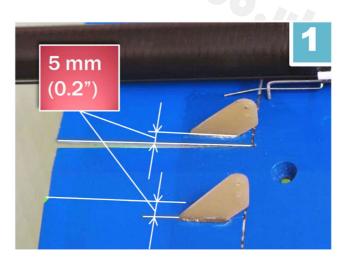
- 1) Thin and Medium CA, CA kicker
- 2) Hobby knife
- 3) Masking tape
- 4) Pen and ruler
- 5) 240...320 grit sandpaper
- 6) Pliers



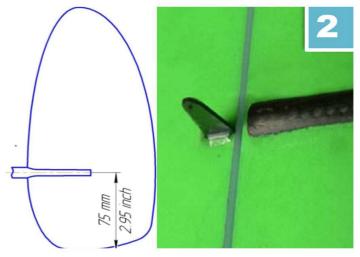
# **Building the Blaster 3**

#### Glue ailerons & rudder control horns

1) Using a hobby knife or Dremel wheel, cut control horn slots in ailerons and rudder, positioned as shown here.



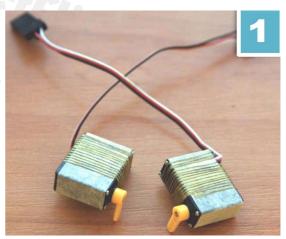
2) Glue control horns with thin CA. **Position the rudder horn as shown here.** 



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#### Install radio gear

1) Cut the lugs off your servos (Hyperion DS09-AMD, DS11-AMD or Futaba S3156MG or similar), and wrap them with masking tape. Optionally, wind thin but strong thread (e.g., Kevlar) around them to stiffen the case.



2) If you opt for a non-movable rudder, place servos as shown in this picture. If you would like to control the rudder too, place the rudder servo behind the battery.

Mount everything temporarily with tape. Test fit the nosecone to make sure that it clears the servo arms!!!



3) Glue servos with CA, but leave the battery mounted with tape.



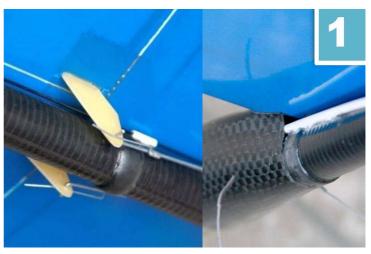
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Alternatively, if you want a movable rudder, four servos can be fitted with care.

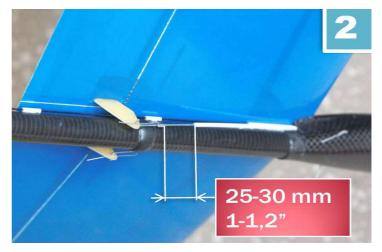


#### Install aileron pushrods

1) Mount the wing with front M3x8 and rear M3x6 screws. Insert aileron pushrods into their sleeves, then slide them into the wing pylon. Hook the aileron pushrods into the control horns.



2) Glue the pushrod sleeves to the pylon wherever possible.

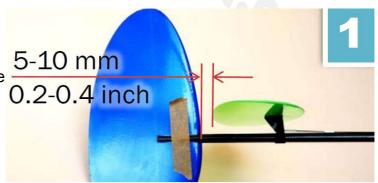


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#### Install horizontal & vertical stabilizers

1) Tape the vertical stabilizer in place, then install the horizontal stabilizer on the V-mount and slide them into position.

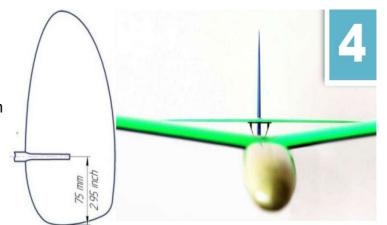


2) Mark the position of V-mount onto the tail boom. To eliminate the gap, remove the V-mount and wind thin thread around the boom.



3) Put the stabilizer/V-mount back on the tail boom and align it with the wing. Glue the V-mount with thin CA.

4) Install the vertical stabilizer as shown, ensure that it is perpendicular to the horizontal stabilizer, and carefully glue it with thin CA.

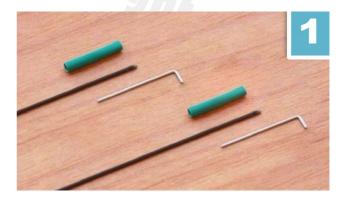


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#### Install elevator & rudder pushrods

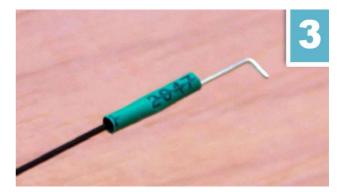
1) Gather 2 pushrods with clevises and heat shrink tubes.



2) Glue clevises to one side of the pushrods with thin CA.



3) Slide heat shrink tube over the joint and drop CA inside the tube. Shrink the tube.



4) Cut the pushrod outer into 1cm wide guide sleeves. Glue these along the boom at 40-50mm (1.5-2") distance.
If you have some suitable piano wire use that to hold the sleeves in position while gluing – any CA that gets on the piano wire will not stick to it as badly as to the carbon pushrod.



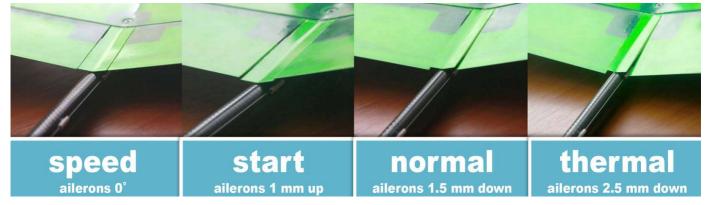
#### Glue the launching peg

Install the peg on the wing tip and glue it with medium CA. If you are a strong thrower optionally drill a 3mm hole through the horizontal peg top, wing tip and bottom, and pin with some 3mm carbon rod or similar (not provided).



#### Setup the plane

We recommend programming your transmitter for 4 flight modes.



Make sure the C.G. is located at 80 mm (85...90 mm for experts) from the leading edge at the wing root.

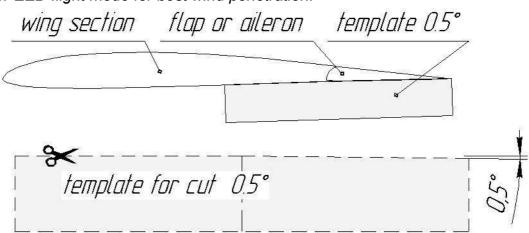
In order not to damage the wing always complete a full revolution before releasing. Release the glider with it travelling horizontally, do not try to make it start the climb before releasing.

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#### **Flaperon Templates**

Cut the templates from card and use them to position the flaperon for the following flight modes.

- 1) CRUISE flight mode. wing section flap or aileron template 2° ↓ template for cut 2°
  - 2) SPEED flight mode for best wind penetration.



- 3) Discus Launch mode. wing section flap or aileron template −0.5° template for cut −0.5°
- 4) Maximum THERMAL flight mode. wing section flap or aileron template 6° template for cut 6°

The template can also be downloaded from <u>www.hyperflight.co.uk/getfile.asp?code=BLASTER-2&code2=3</u> and printed directly onto card.