BlueArrow

Venus DLG

Construction and Flight Manual

Note: Read this manual carefully before construction and flight!

1. Introduction

Thank you for choosing this fantastic Venus DLG brought to you by BlueArrow Products

The Balsa wood construction of Venus DLG allows it to be light and durable. Since all parts are laser cut, accuracy in fit and assembly are assured.

BlueArrow guarantees that Venus DLG is free of materials and manufacturing defects and can fly very well under normal condition. Any unauthorized modification will affect the performance and durability of this aircraft and make the warranty void.

BlueArrow reserves the rights of upgrading its products without prior notice.

The aircraft is not designed as a trainer aircraft, and flight experience is necessary. If you have no experience, we suggest you consider learning from one of our excellent trainer aircraft before trying your Venus DLG

BlueArrow reserves the right to adjust and modify any pictures and descriptions in this manual without prior notice.

BlueArrow doesn't accept any responsibility for any mistake that may appear in the manual.

2. Specifications

Wingspan: 1230mm
Fuselage Length: 935mm
Wing Area: 14.64dm2
Wing Type: MH32
Flying Weight: 220g
Center of Gravity (CG): 32%
Control Surface: Aileron, Elevator and Rudder

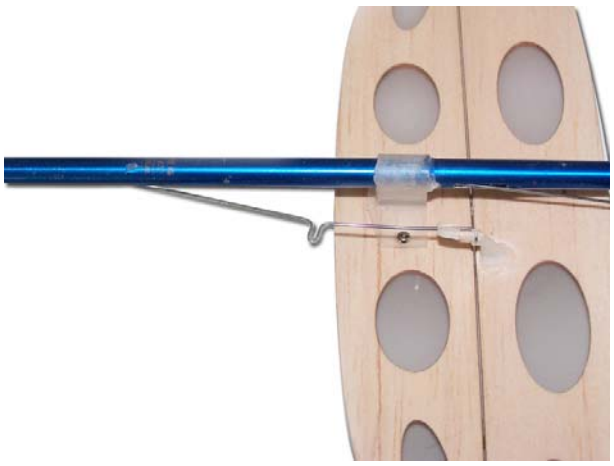
3. Electronics (Optional)

Receiver: ≥ 4 CH
Servo: 4PCS Micro Servos (e.g. BA-TS-4.3)
Battery: 7.4V 2S 250mAh Li-Po or Ni-Mh.

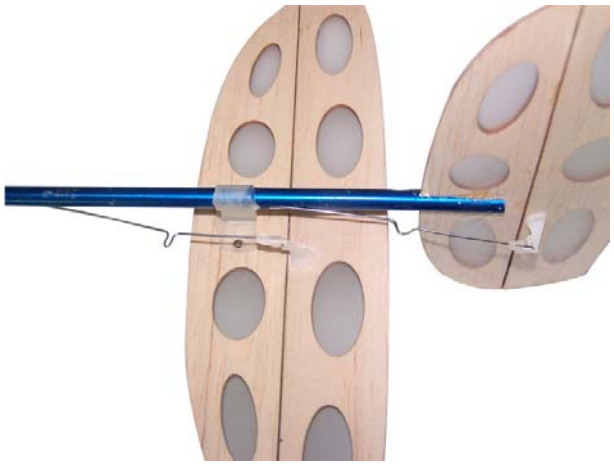
4. Assembly

Make sure that all parts are included and intact before assembly.

Please pay attention to the wing and the covering. Should Venus DLG be found faulty out of the box please contact your dealer for replacement.



The image above shows proper horizontal stabilizer installation

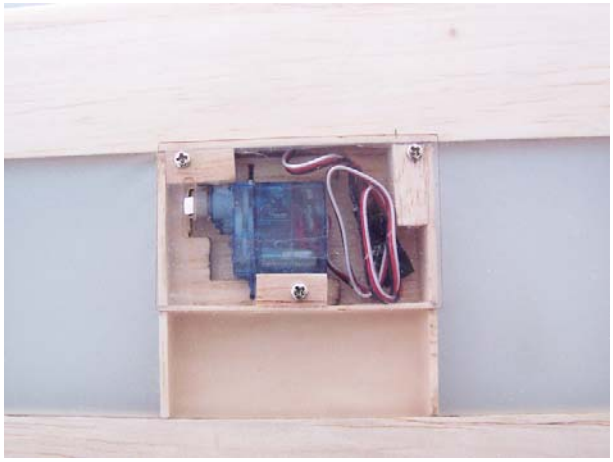


Insert rudder into the tail boom and then connect the steel wire to the control horn.

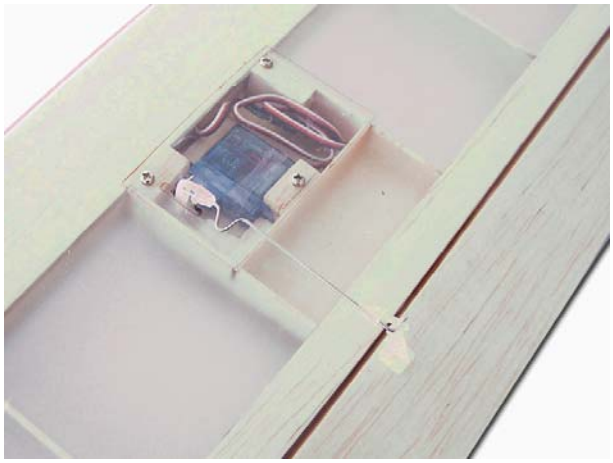
Make sure that the horizontal stabilizer and rudder can move properly.

There is a small enforcement patch on the horizontal stabilizer (looks upwards)

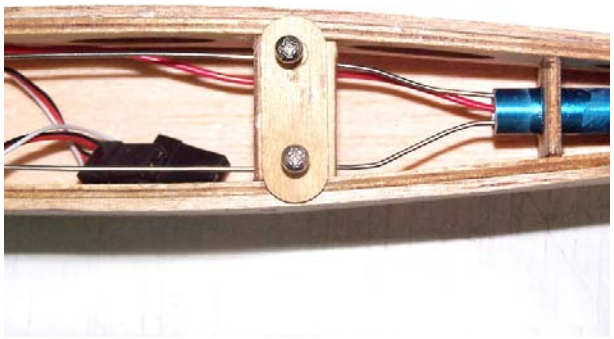
Looks downwards



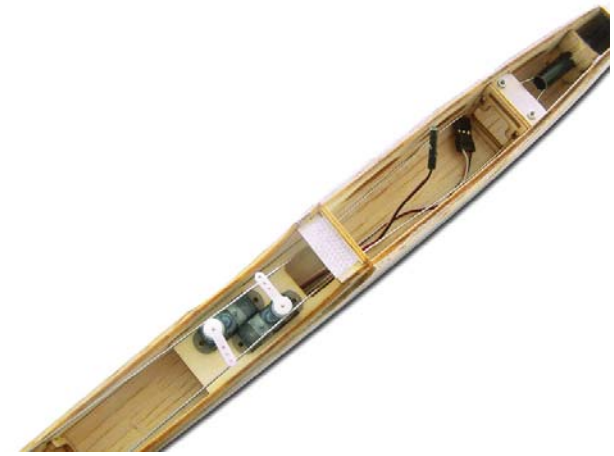
Proper servo location in the wing



Wiring graph of servo horn and control horn is shown above. Extension wires for servos have been pre-installed into the wing.



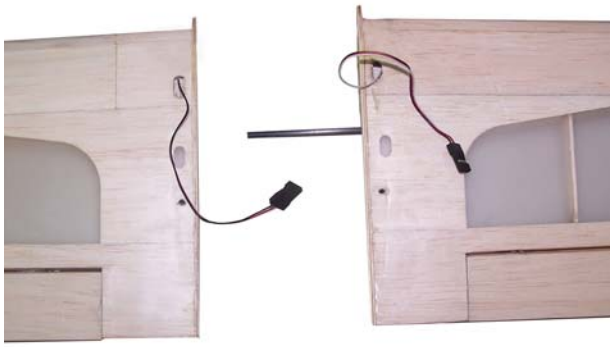
Bend the steel control wires to proper shape. Make sure that these two wires should be able to move backward and forward freely for around 100mm.



Lead the wires to the servos

Bend the wires by pliers before installing to the servo

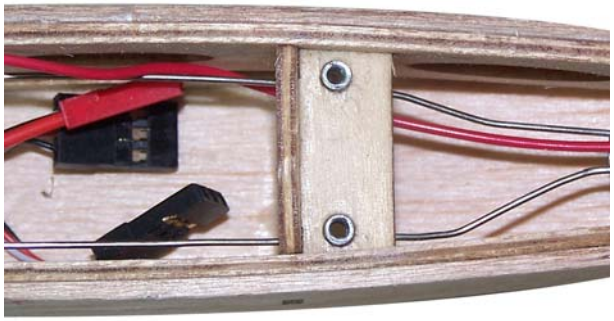
Insert the steel wires into the servo horn and fix them



Let’s assemble the wings of Venus DLG. The carbon fiber rod in the wing is used for enforcement.

Please make sure that the servo wires have been taken from the wing before assembly.

Install the two pieces main wings onto the fuselage.



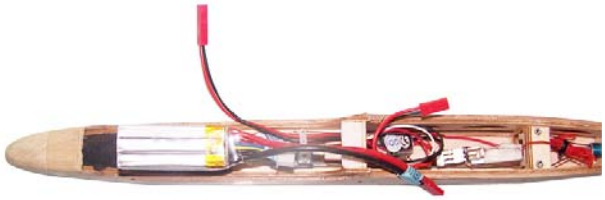
The screw should not be fixed too tight. It may deform the wing shape

In order to further strengthen the wings you may use glass fiber tape to stick the two wings together.

Check whether the throwing peg is solid in position. Stick it if it is loose.

Another view angle

Turn on the power and four servos should work properly.

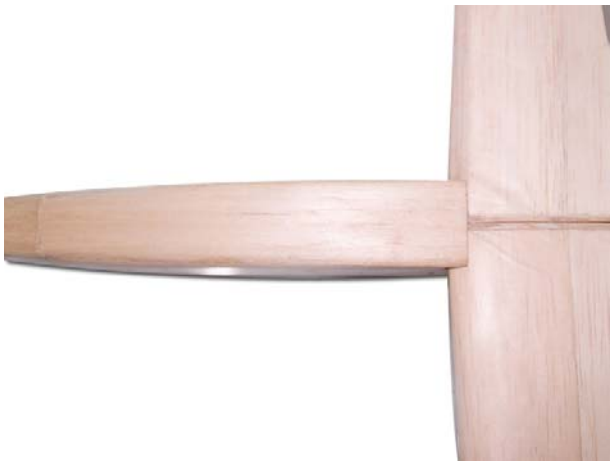


Above image shows recommended battery location. Please note the size & weight of the battery will affect the actual CG greatly.

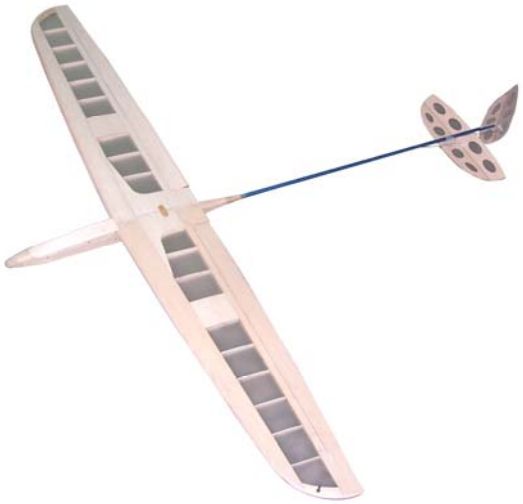
The lead balancer is around 30g-35g and you can use it to balance the CG affected by battery and other electronics.

Wrap the lead balancer with sponge and then insert into the plane nose.

Canopy: Insert the steel wire into the nose.



Connect the nylon buckle



You can use provided decals to decorate you Venus DLG after proper assembly.

5. Flight Tips

The BlueArrow Venus DLG is launched like a discus. The height of the launch is varies with the technique used and will improve with practice. In general, the discus launch techniques will launch the BlueArrow Venus DLG to close 50 m (164 ft), about twice the height of launches using the overhand technique.

Once the model is launched, the duration of the flight is dependent on the pilot skill at finding and staying in lift. Lift is caused by un-even heating of the ground by the sun, this produces rising columns of air known as thermals. If the pilot directs the glider into a thermal, and circles to stay inside it, the glider will be carried upward and the flight time will be extended. This is known as thermal soaring; it takes practice to recognize and stay in a thermal. Thermals will be more likely to occur over dark patches of ground, such as plowed fields or parking lots. Watch for signs that the model has flown into a thermal such as a sudden rising of a wingtip, or a slow in the descent of the model. At the first sign of a thermal, begin to circle in order to stay in the area of rising air.

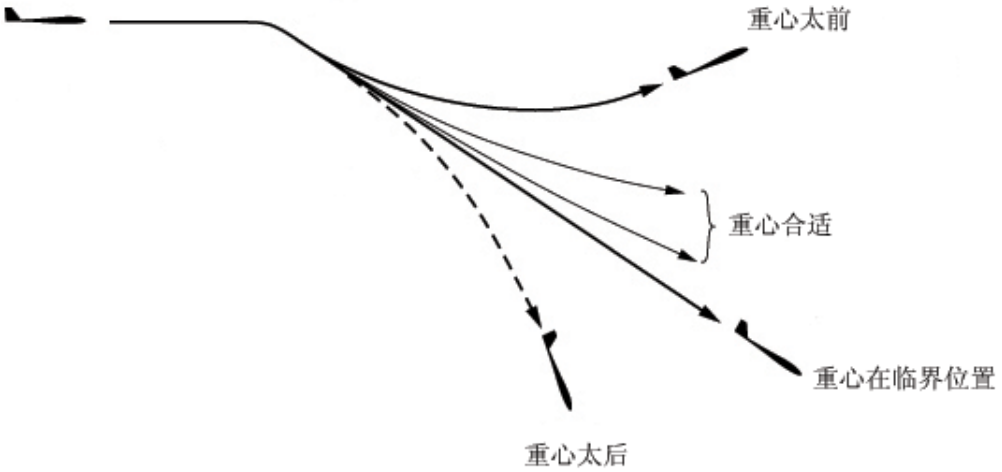
DLG launch----It is so easy to fly a DLG. Hold the throwing peg with your forefinger and middle finger，With the wing nipped in your two fingers, you stride one step forward and make a turn and throw the plane into the sky. At first you should not do it with all of your strength. You need to increase the strength when you get familiar with it. When making a turn you should relax you body and stretch you arms. You need to make use of the strength of your waist and legs which could be more powerful and energy saving. You will be rather tired after a short time launch with just the strength of your arm. With more practices, you will find DLG launch is a real easy and smooth sport.

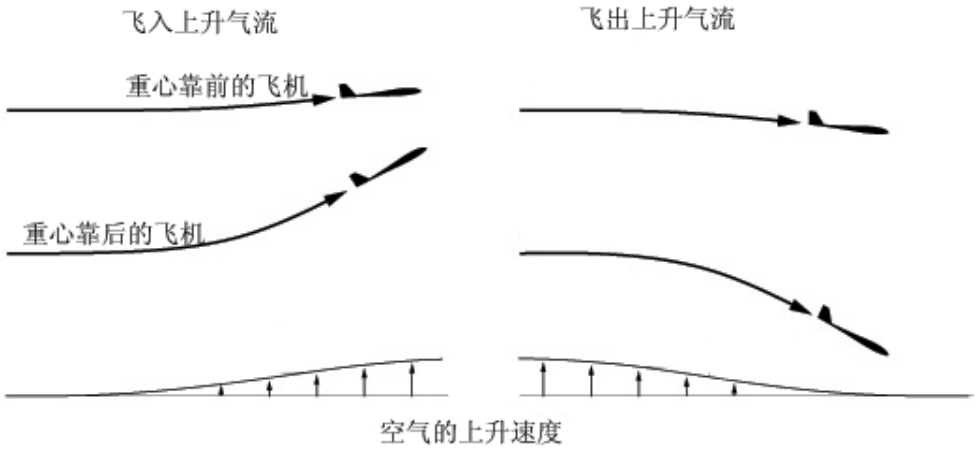
6. Achieve proper CG.

Though the CG of Venus DLG is around 32% away from the leading edge it varies due to different electronics used. You may test the exact CG by test flying.

The position of CG affects the flying attitude of the plane greatly. The flying attitude will change sharply when the CG is backwards and it could provide more clear control to the pilot.

You may get proper CG with reference to the picture below.





7. Radio Setting

Though 4CH radio is enough for Venus DLG 6CH Radio or above is recommended. Advanced radio equipment can provide more useful setting.

7.1 Aileron Traveling Adjustment

If the traveling of the aileron is too large it will bring more resistance to the flight. You could use large traveling in your first test flight and then gradually reduce the traveling on your radio until getting the best control. You can improve the control efficiency by set the coordination movement between aileron and rudder.

8. Final Checks

Make sure that all four servos work well without binding or friction. The control surfaces should move easily and without hesitation. Adjust the linkages if necessary.

We hope you enjoy your Venus DLG, and wish you many hours of flying fun. Check out all of our great models at: www.bluearrow-rc.com.