

What is the ELF?

- The ELF is a 1-meter wingspan discus launch glider (DLG)
- The ELF allows the Pilot to fly in small spaces like never before
- The ELF combines state-of-the-art model sailplane design and construction technology coupled with simplicity at a low cost
- The ELF is intended for pilots of all skill levels and experience
- The ELF is big fun in a small package!

Ready to Fly
at **3.4 oz (95 gr) !**

(NOTE: Flying weight is based on a number of factors. Not all planes will weigh 3.4 oz.)



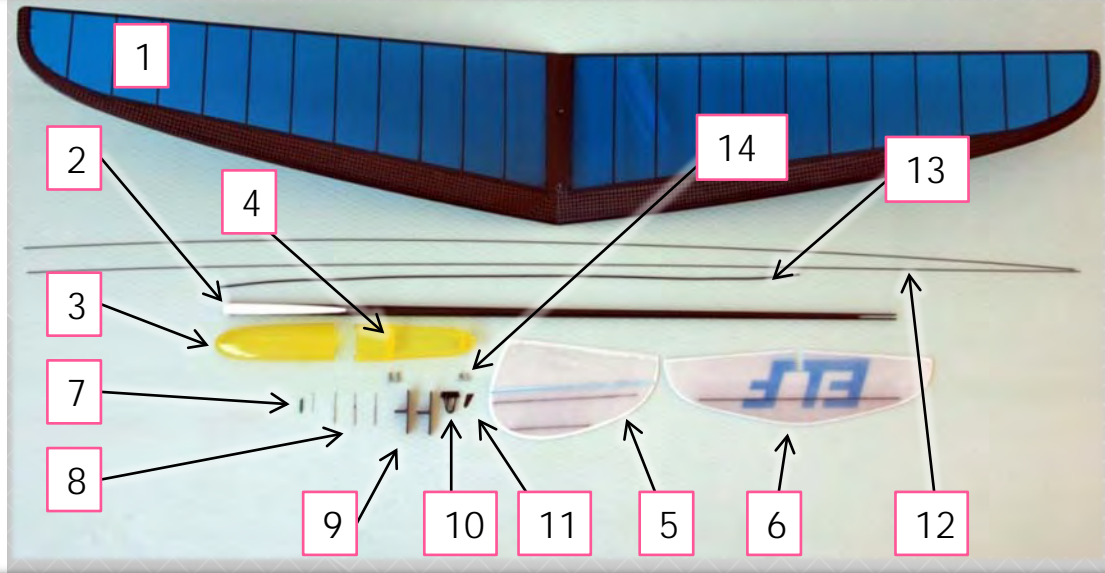
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Parts and Materials List

The ELF kit includes the following parts:

- 1) Wing
- 2) Fuselage boom
- 3) Fuselage nose-cap
- 4) Fuselage pylon
- 5) Vertical stabilizer (Rudder)
- 6) Stabilizer
- 7) Stabilizer and rudder pushrod tips (2pcs)
- 8) Servo pushrod tips (2pcs)
- 9) DLG Wing launch pegs (2pcs)
- 10) V-mount
- 11) Rudder horn
- 12) Pushrods (2pc.)
- 13) Pushrods pipe (1pcs)
- 14) Wing mount screws (longer – front, shorter – rear)



List of radio equipment needed to fly the ELF:

- 1) Shread - RC 240 mAH (Li-Po battery pack)
- 2) Dimond D47 servos (2pcs)
- 3) Micro-Receiver (Spectrum AR6250 or AR6255)
- 4) Radio transmitter



List of materials needed to assemble the ELF:

Medium and liquid CA glue
Razor knife
Pen
Ruler



Masking tape
150-240-grit Sandpaper
Needle-nose pliers
Your desire ☺

Cement the rudder horn and cutting slot in the stabilizer



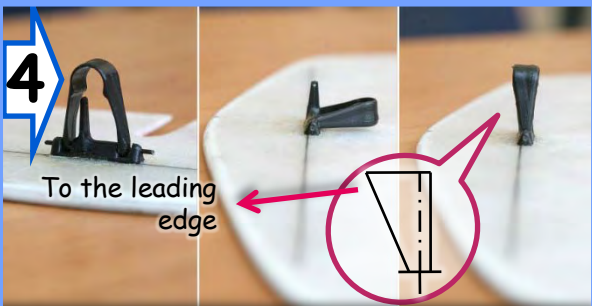
1
At once behind a spar cut out a slot in the stabilizer center through.
Don't cut the carbon spar!!!



2
Disassemble V-mount. Insert a stabilizer horn into a slot precisely as in picture.
Pay attention to horn position!!!



3
Glue the horn by liquid CA glue from below and from above.
Don't fill in the shaft!!!



4
Attach back a V-detail precisely as in picture. The wide side to the leading edge.



5
Note slot position in the rudder (50 mm from a bottom)



6
Cut out the rudder horn slot and glue in

Install the rudder and the stabilizer

1



Sand a rear bore in a pencil and a beam around a pencil with sandpaper

2



Put on a beam the fuselage-pylon, V-mount with stabilizer, but don't glue them. **After tail installation pylon anymore won't put on !!!**

3



Insert the vertical stabilizer into a slot on a beam and accurately glue from two parties by CA glue

4



Establish the stabilizer to perpendicularly rudder

5



Accurately paste V-mount to a beam.
Don't fill in a stabilizer horn !!!

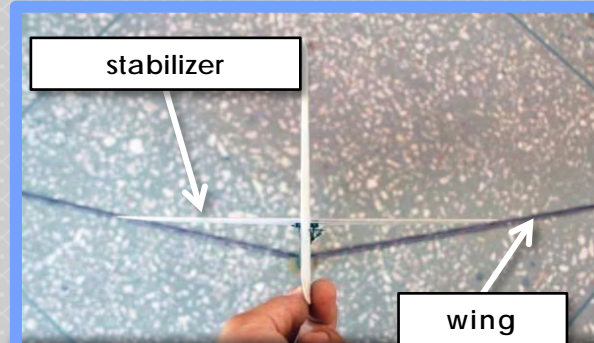
Cement the Fuselage Pod to the Boom

1



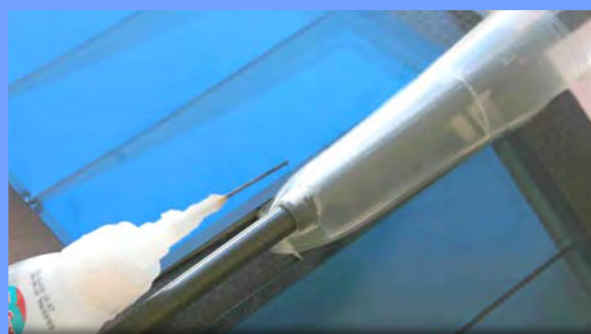
Fasten a wing to the pylon. Put on a nose-cap so that the beam nose has rested against a nose-cap.

2



Expose a wing exactly concerning the stabilizer as in picture

3



Take liquid CA glue a rear bore of the fuselage-pylon

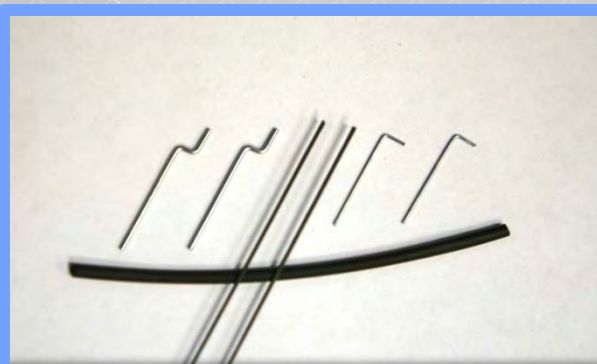
4



Then remove a wing and glue a pylon in front and behind

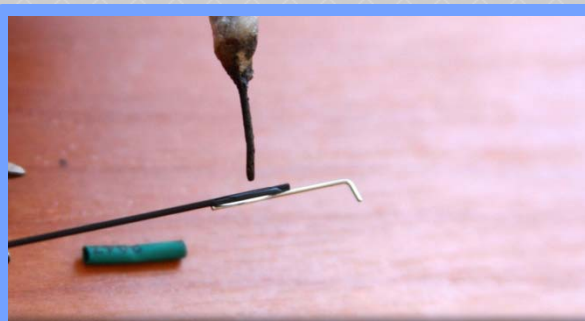
Install the Pushrods and Pushrod Tips

1



Prepare 2 pushrods, 2 pushrod tips, heat shrinkage and liquid CA glue

2



Paste Γ -pushrod tips to one side of pushrods with liquid CA glue. **Z- pushrod tips are for servo side (Don't glue it yet!)**

3



Cut shrinkage on 4 pieces. Put on the shrinkage to the junction and accurately heat up. Glue the fitting with liquid CA.

4



Glue pieces of pushrods pipe along a beam with step of 30-35 mm

Install the Pushrods and Pushrod Tips

5



Attach pushrod to rudder

6



Attach pushrod to stabilizer.
If for this purpose it will be necessary to remove it – make it

7



At the maximum expenses the tip should be fixed by a V-mount

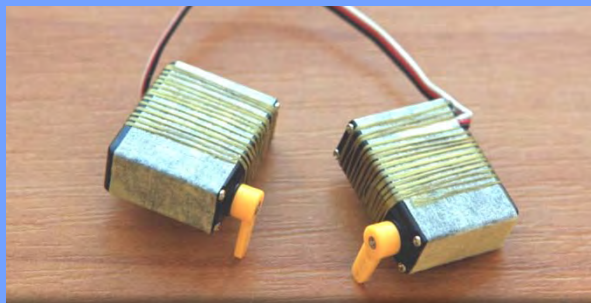
8



Necessarily fix pushrod pipes on the pylon brink

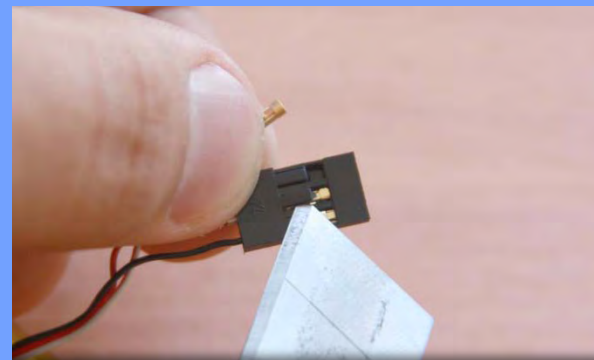
Install the equipment

1



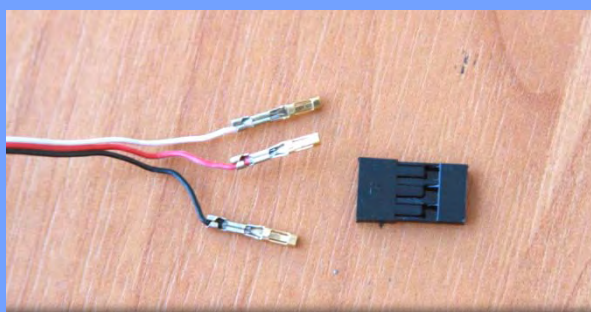
From servos cut off pads, wrap up their masking tape (it is possible still a thin strong thread)

2



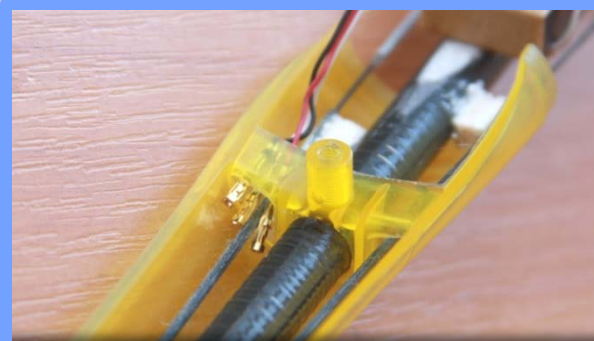
To remove a socket, it is necessary to hook accurately each pad and to pull out a wire

3



Do it with all sockets: 2 servos and the accumulator.
Remember polarity!!!

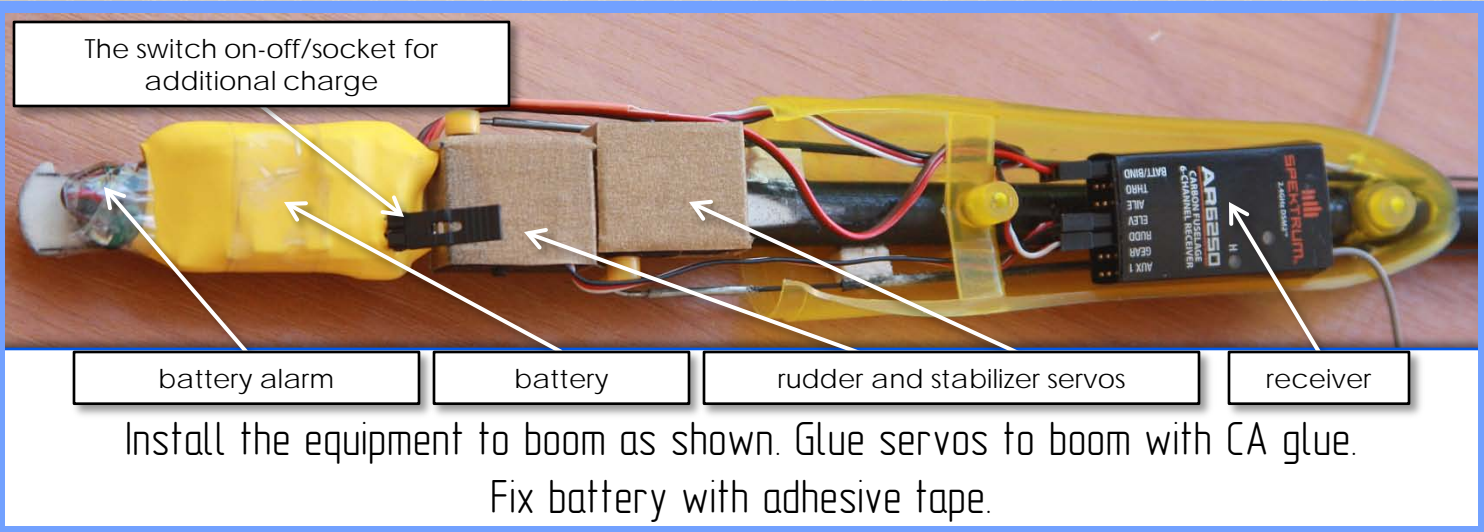
4



Now pass all wires through special bores in the pylon. Insert sockets back. **Polarity as on fig. 3!!!**

Install the equipment

5

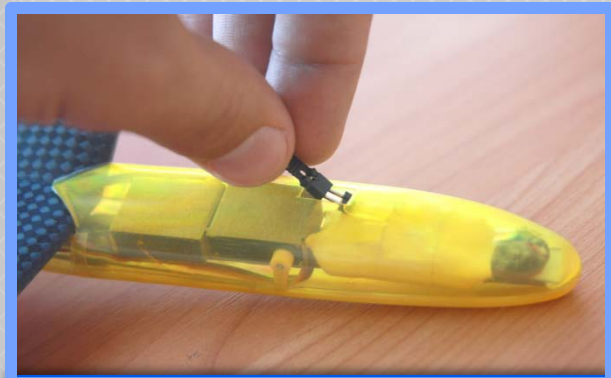


6



For a conclusion of aeriads of the receiver it is possible to make holes

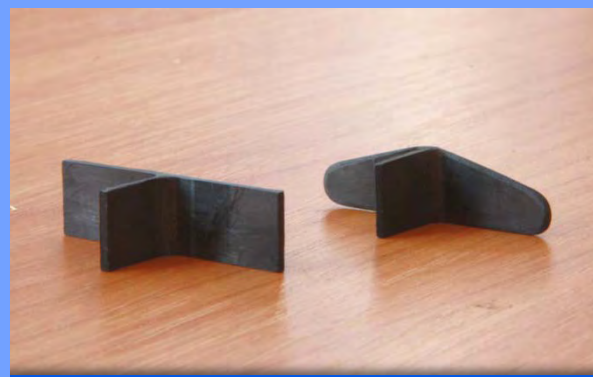
7



Do a hole in a nose-pod opposite to your charge socket

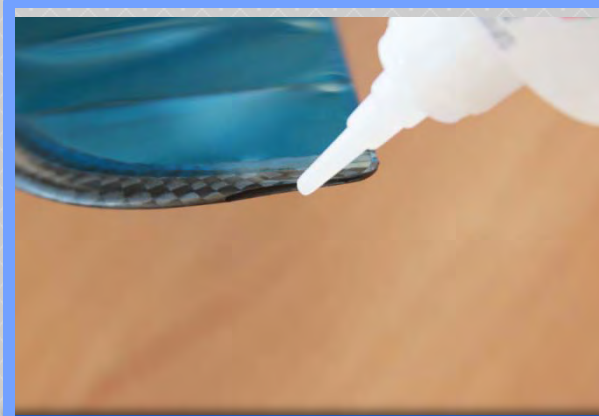
Install the DLG Pegs

1



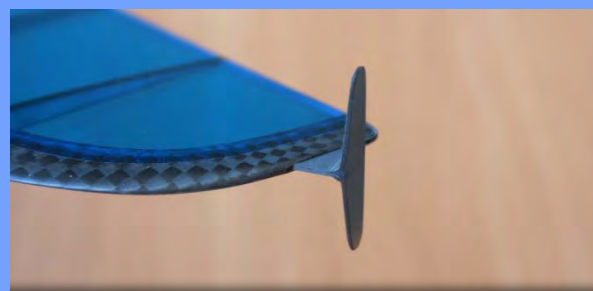
Take your DLG launch peg and by means of an emery paper form it, convenient for You

2



Apply CA to the inside of the slot on end of wing

3



Insert the peg (if you the right-handed person, in left tip if the lefthander – that in right) and carefully fill cracks with CA glue

4



On the opposite side also necessarily apply CA glue. For balance, it is possible to paste the peg and from this party

Balance the CG

1

Establish the recommended center of gravity of model 80-85 of mm from a $\delta y\phi\beta w m n$ edge of a side panel around the midpoint. Move the accumulator or establish cargo forward — for reception of more front centering or back — for reception of more rear.

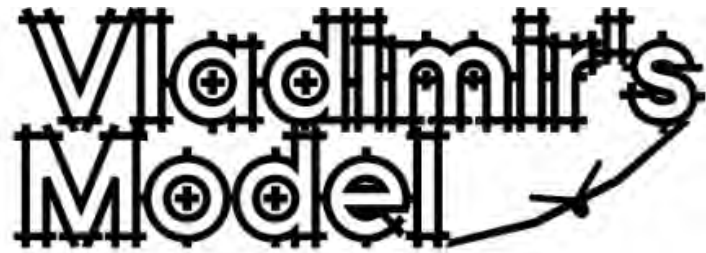
2

**Don't forget to charge the ELF and the transmitter!!!
In order to avoid wing breakage, start model from a complete revolution!!!**



Program the transmitter and **GO TO FLY!!!**

If you have further questions or would like to purchase additional products please contact us at:



<http://f3j.in.ua>

<http://airplane-model.com>

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