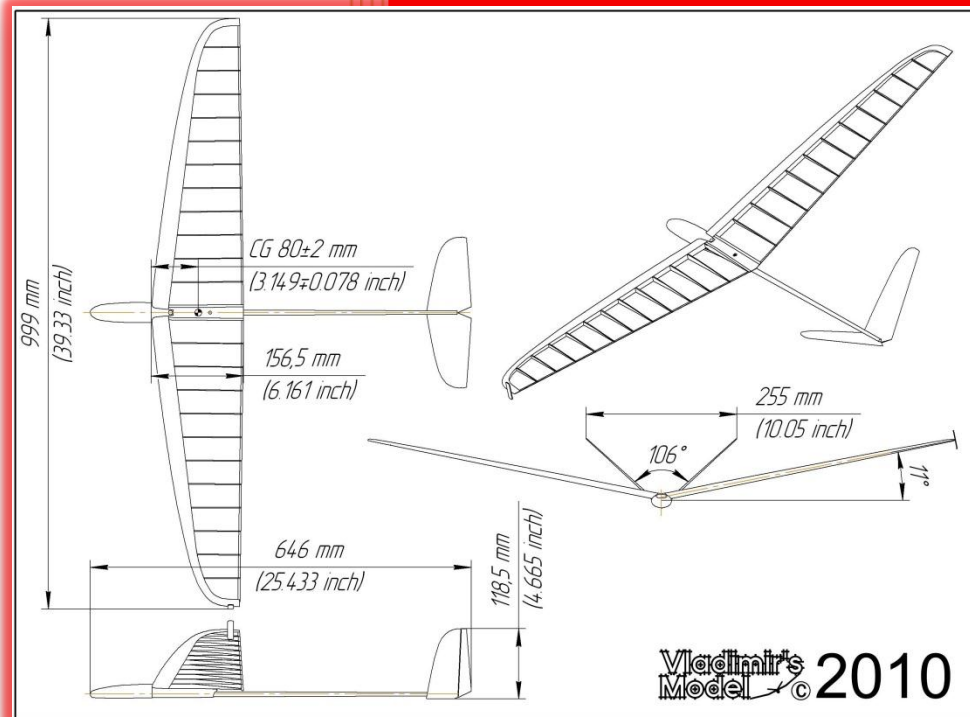


# 2010

## ELF Assembly



© Kennedy Composites

7/4/2010

## 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 ounces**

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

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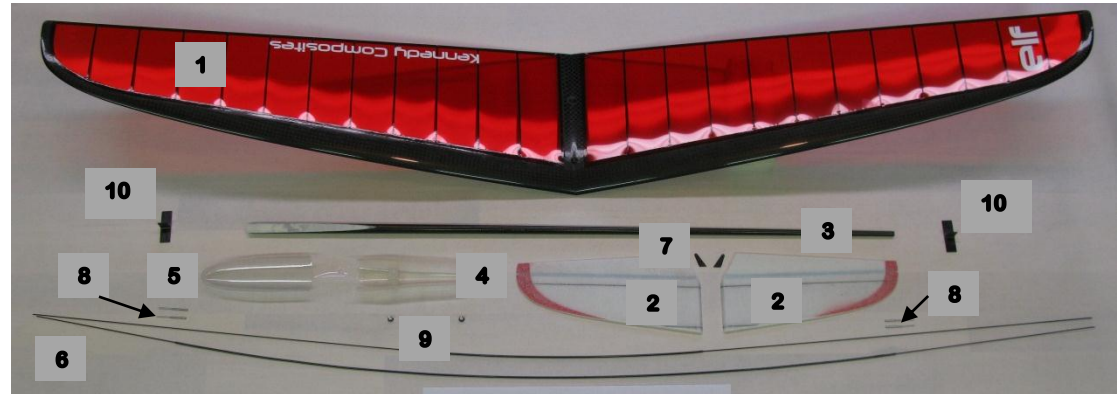
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**Go FLY!**

## ELF Parts and Materials List

### The ELF kit includes the following parts:

1) 1 - Wing
2) 2 - V-tail Stabilizer halves
3) 1 - Fuselage boom
4) 1 - Fuselage Wing mount pod
5) 1 - Fuselage nose-pod
6) 2 - V-tail pushrods
7) 2 - V-tail pushrod horns
8) 4 - V-tail pushrod tips
9) 4 - Wing mount screws (2 extra)
10) 2 - DLG Wing launch pegs



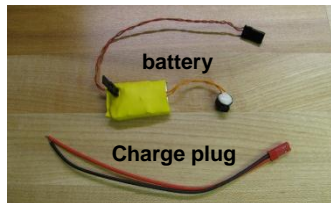
### List of materials needed to assemble the ELF:

Medium-thick foam-safe CA glue
150-grit Sandpaper
Masking Tape
Wax Paper
Needle-nose pliers
Razor knife



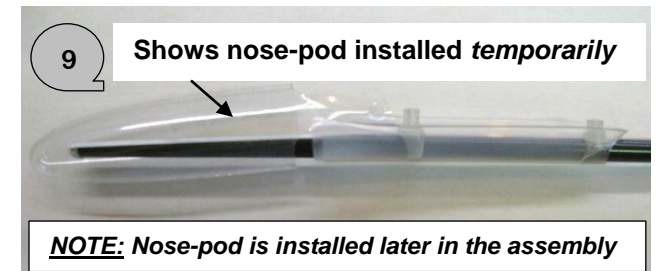
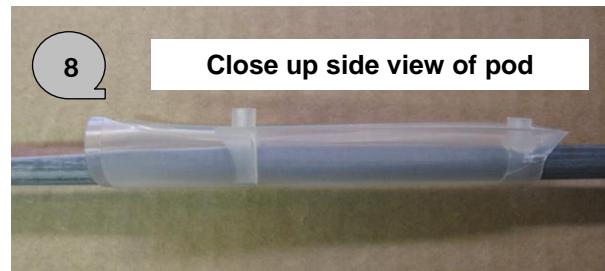
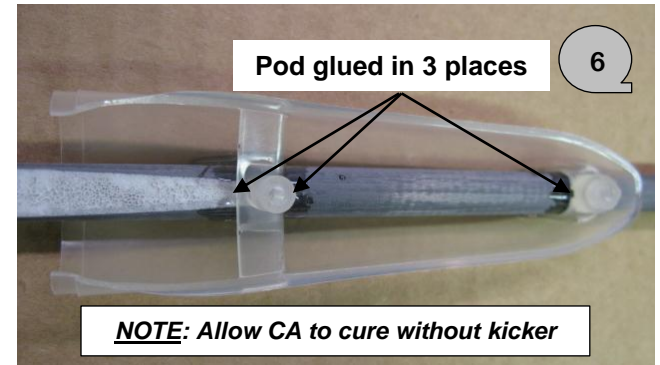
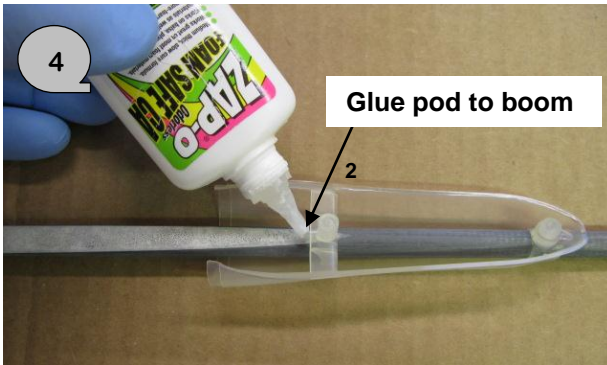
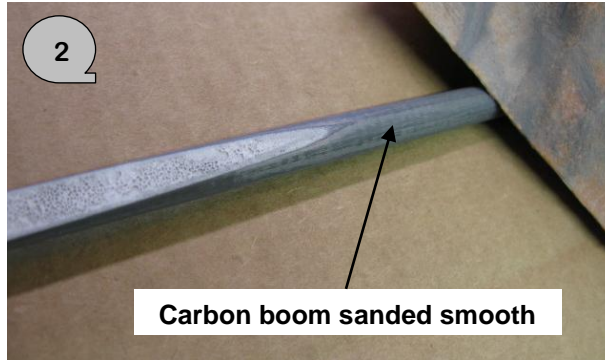
### List of radio equipment needed to fly the ELF:

240mAh LiPo Battery Pack (Shown) (available from Kennedy Composites)
2 Micro-Servos
Micro-Receiver (Spektrum AR6250)
Radio transmitter

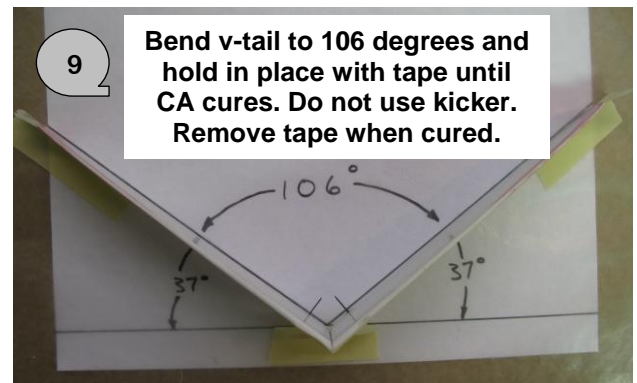
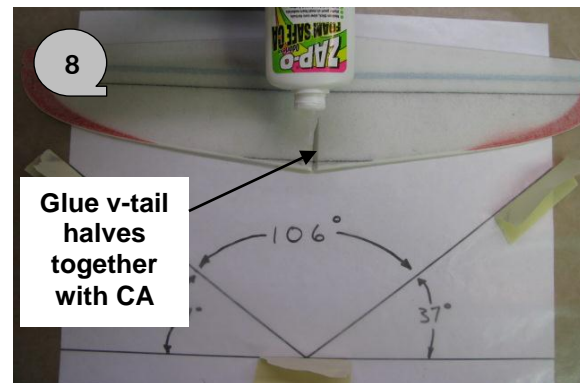
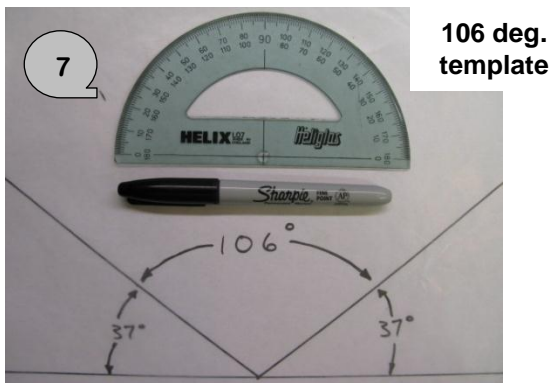
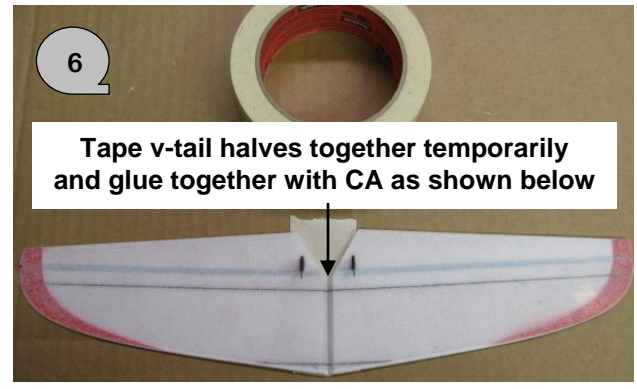
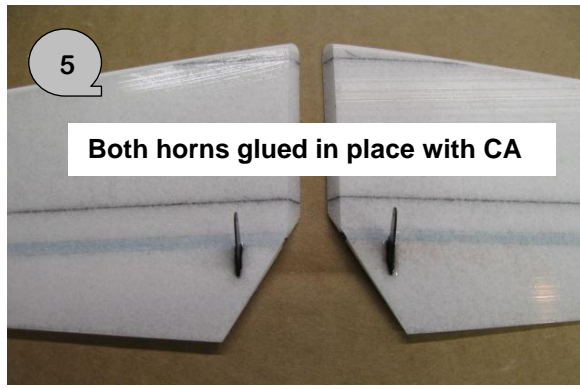
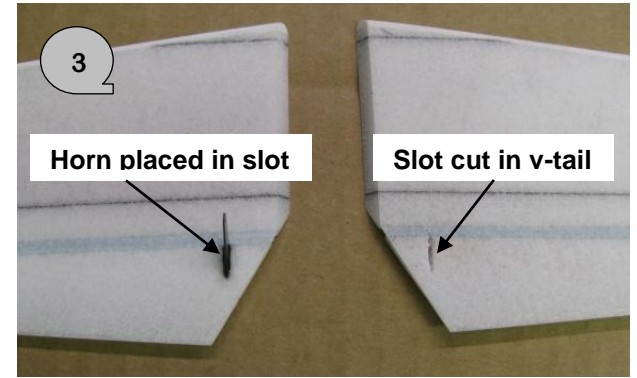
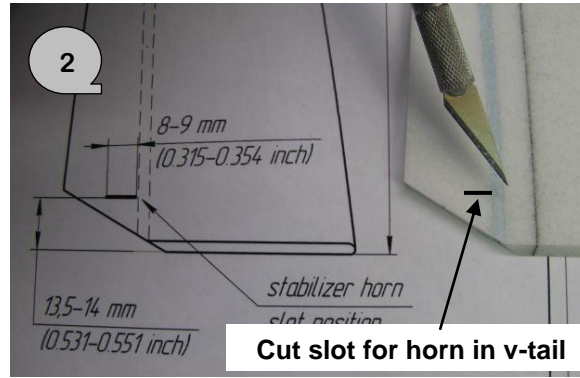
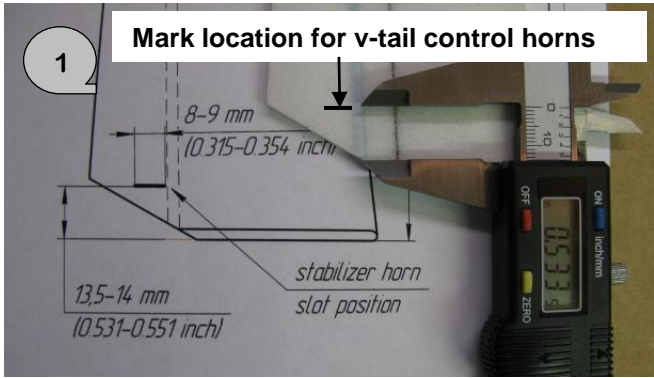


# ELF Assembly Procedure – READ ENTIRE INSTRUCTIONS BEFORE BEGINNING

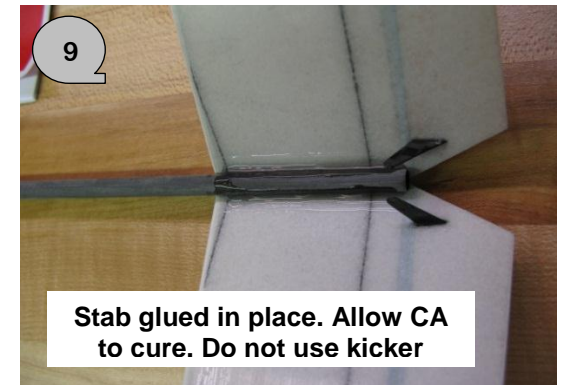
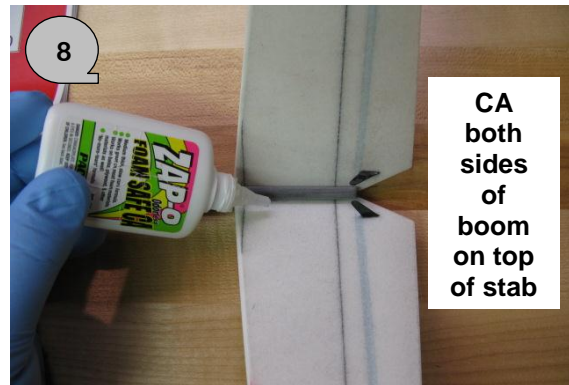
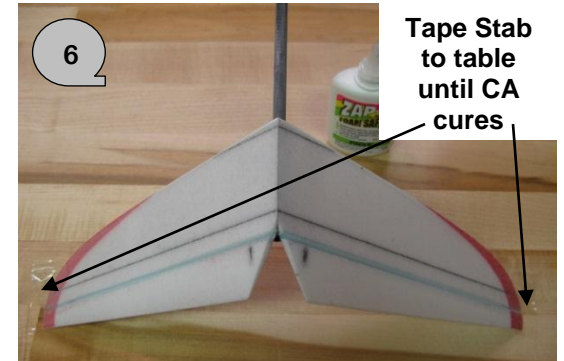
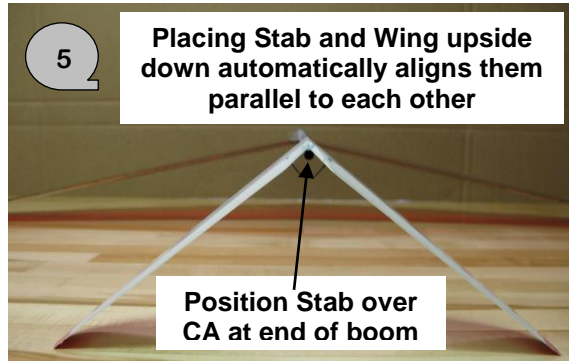
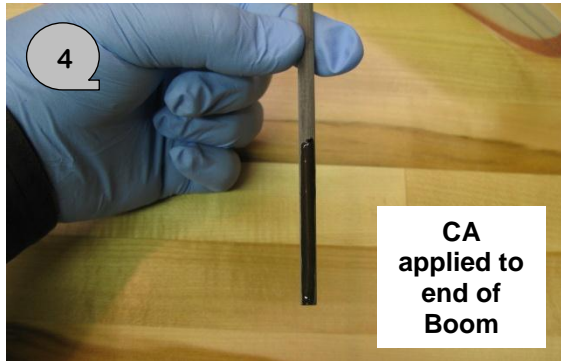
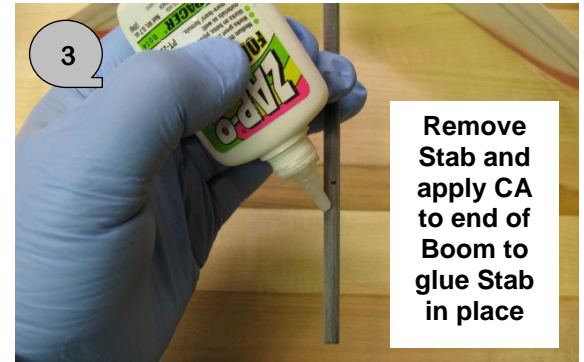
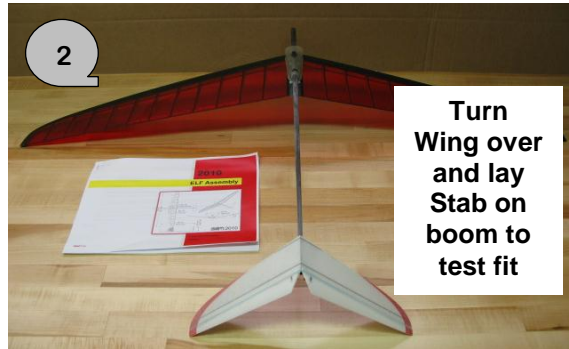
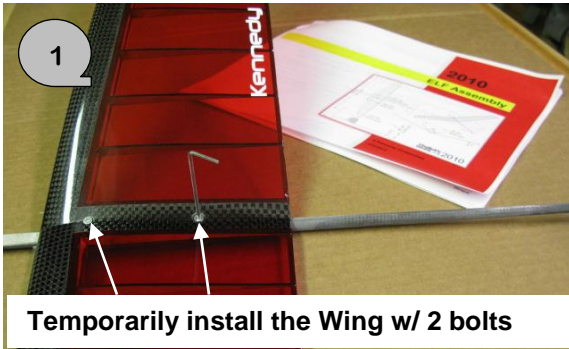
## STEP 1: Cement the Fuselage Pod to the Boom



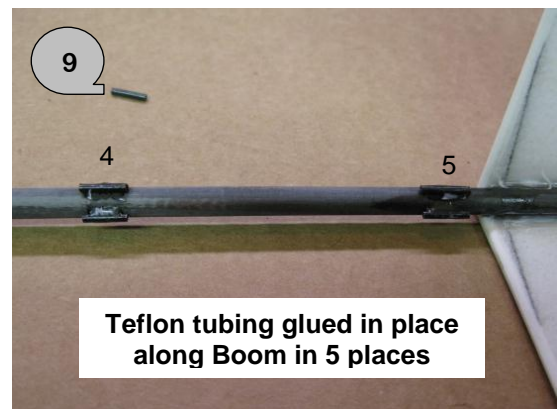
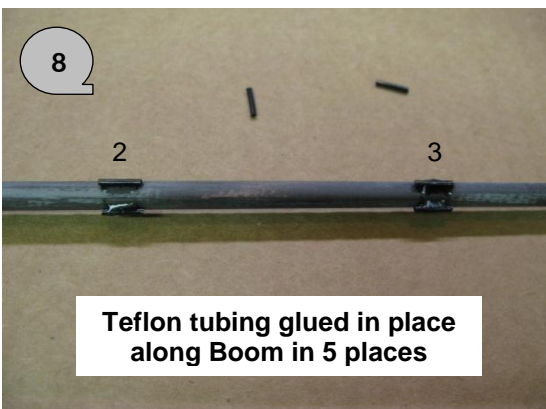
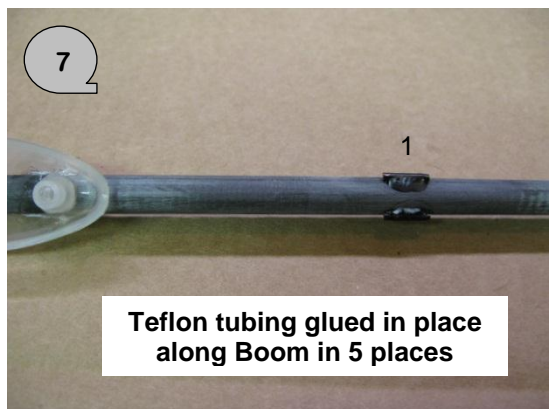
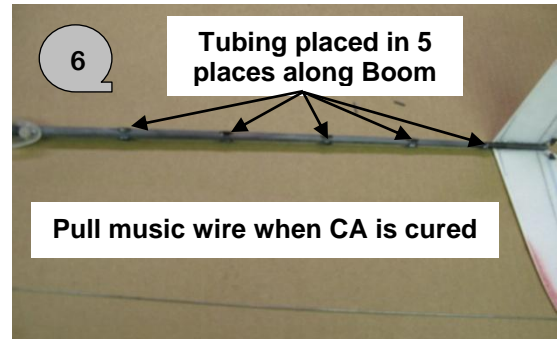
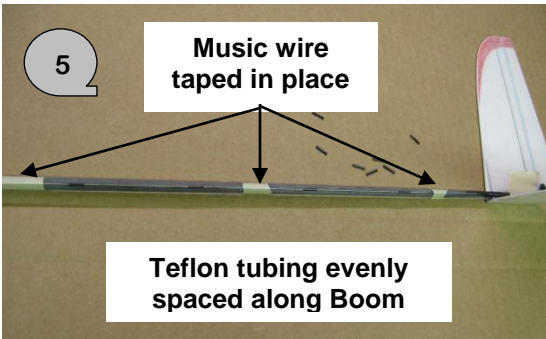
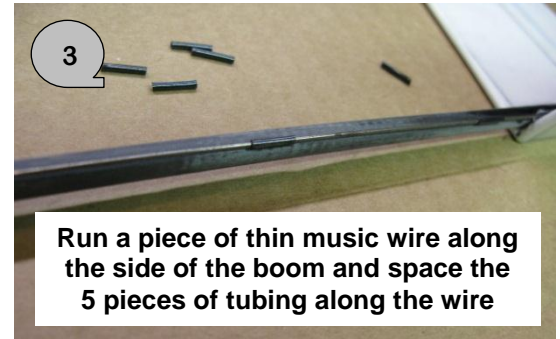
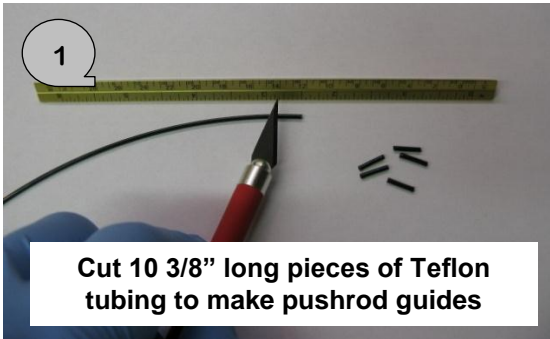
**STEP 2: Install the V-tail Control Horns and Cement the V-tail halves Together**



**STEP 3: Cement the V-tail onto the Boom**

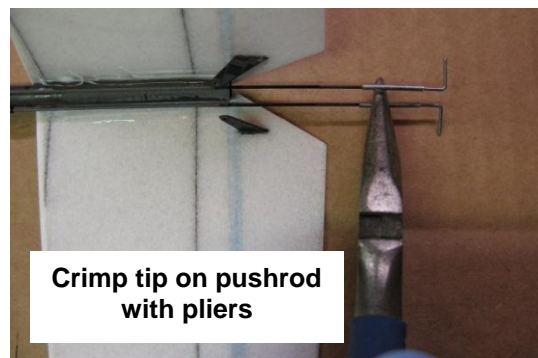
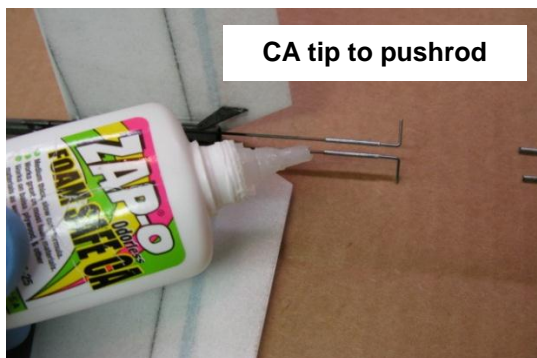
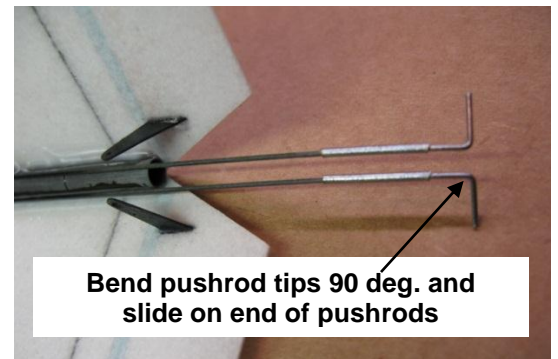
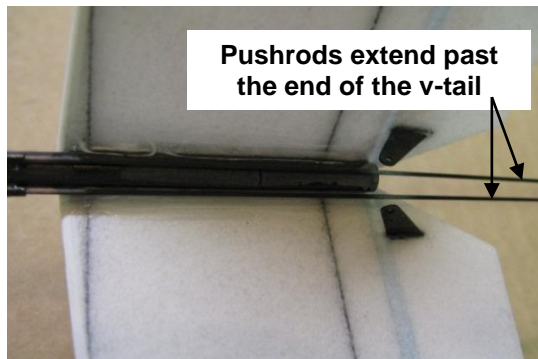
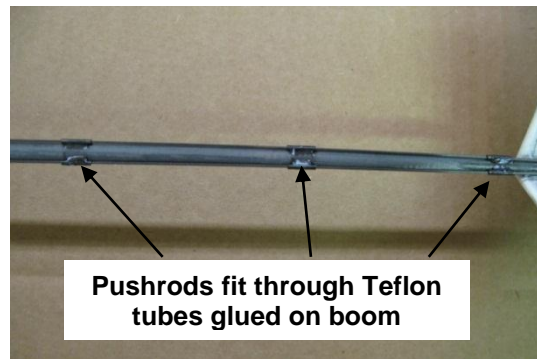
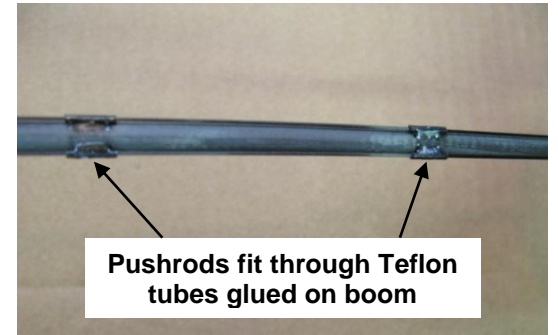
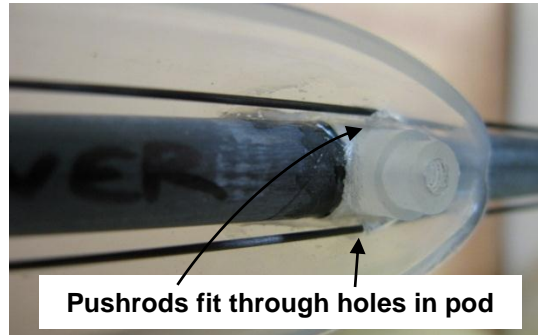
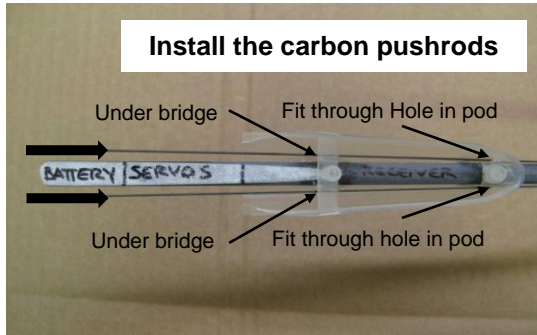


**STEP 4: Install the Pushrods on the Boom**

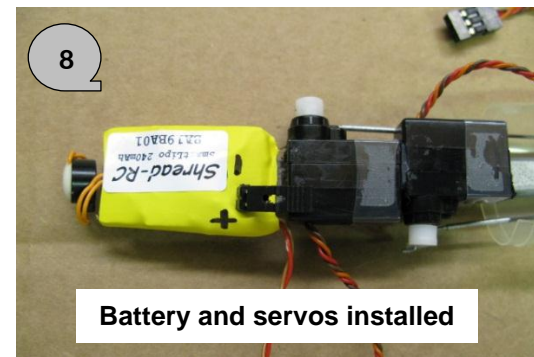
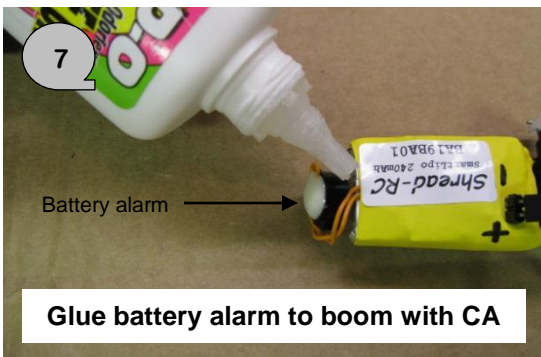
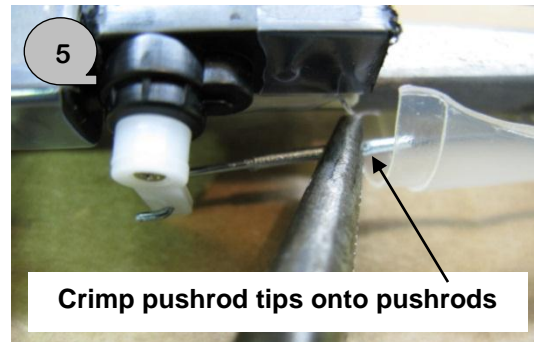
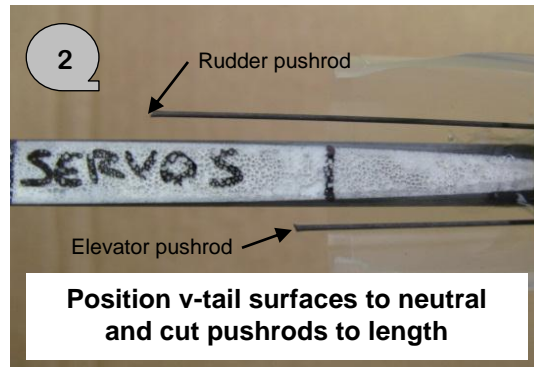
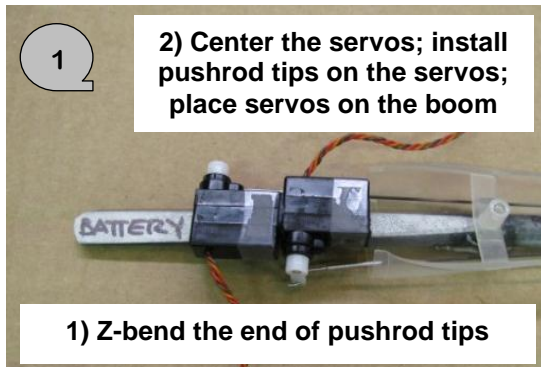




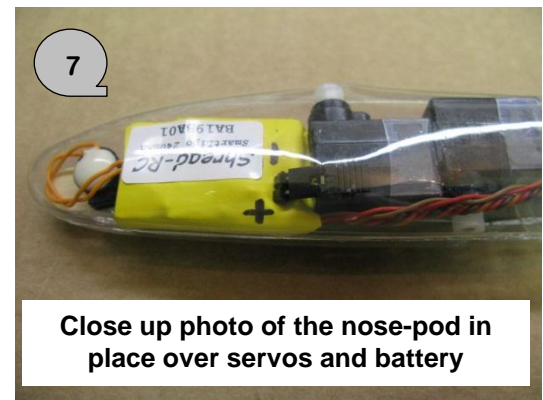
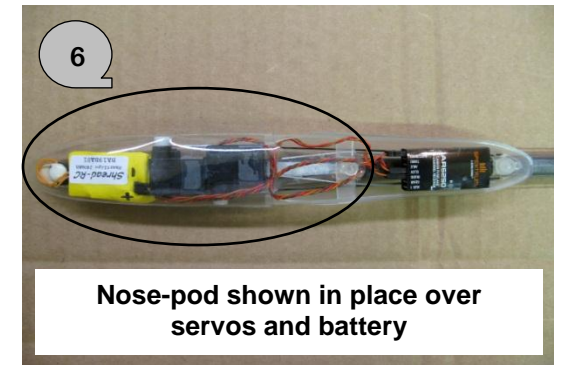
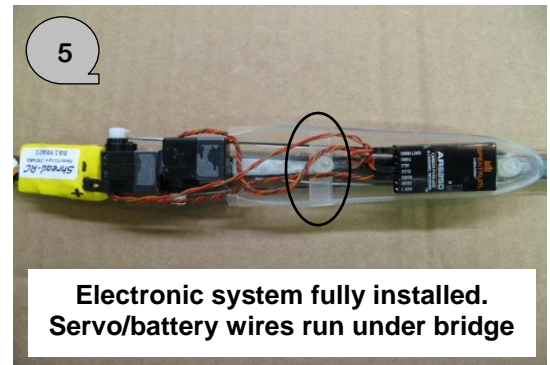
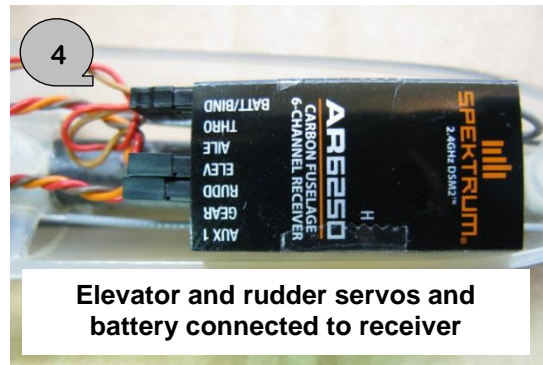
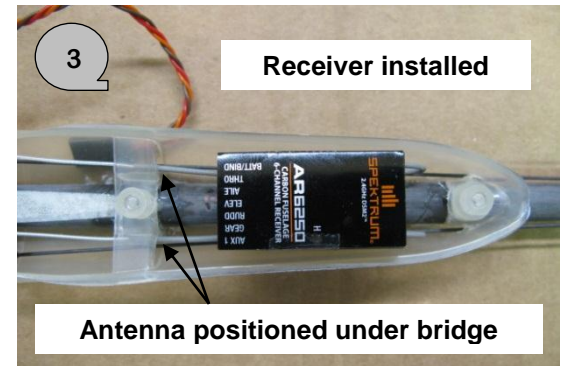
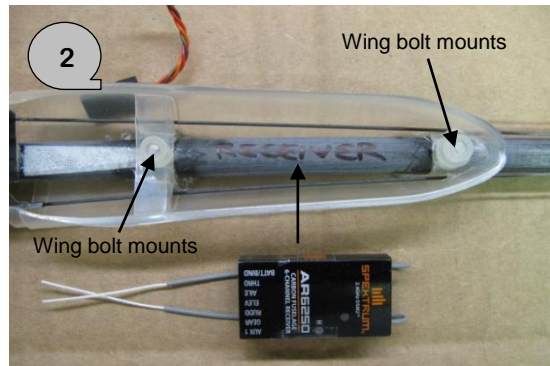
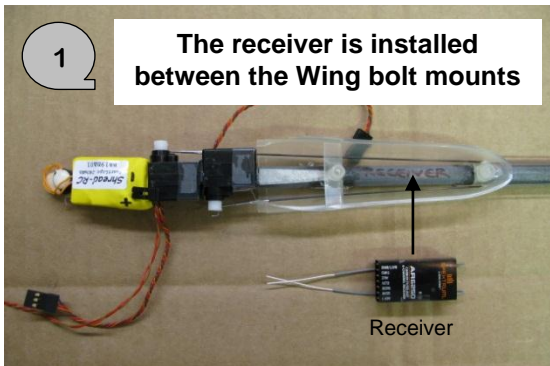
**STEP 5: Install the Pushrods, Pushrod Tips, and Connect the Pushrods to the V-tail**



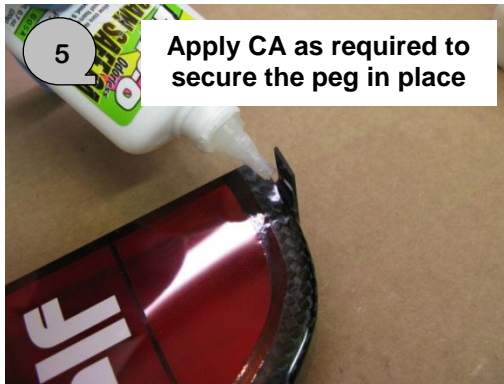
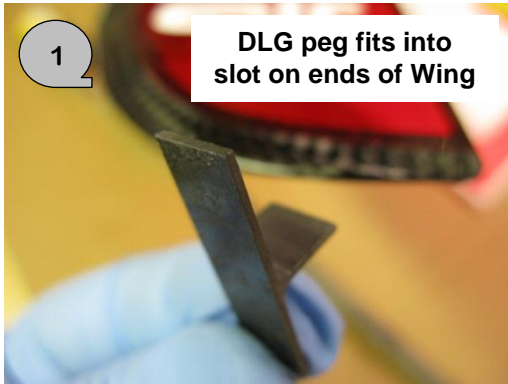
**STEP 6: Install the Servos and the Battery and Connect the Pushrods to the Servos**



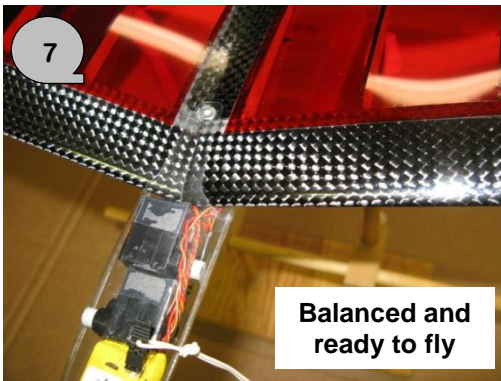
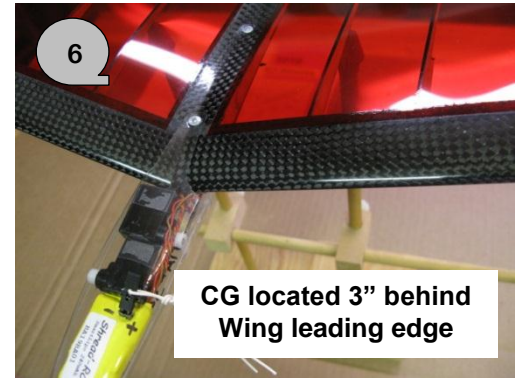
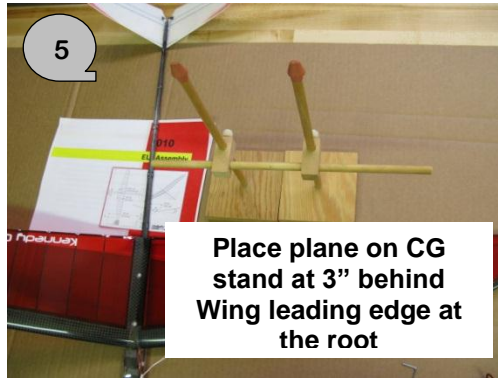
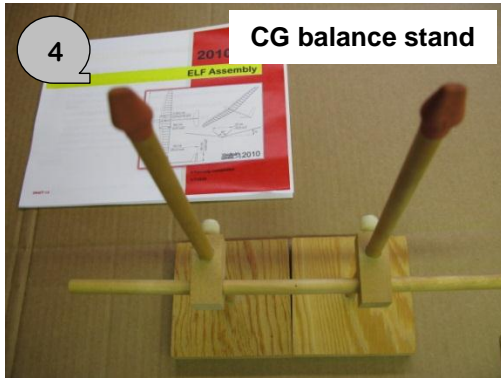
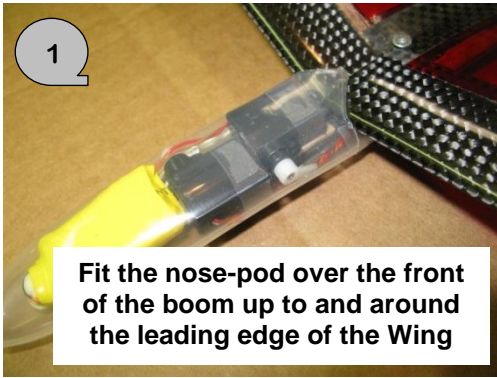
**STEP 7: Install the Receiver and Connect the Battery and Servos to the Receiver**



**STEP 8: Install the DLG Pegs in both Ends of the Wing**

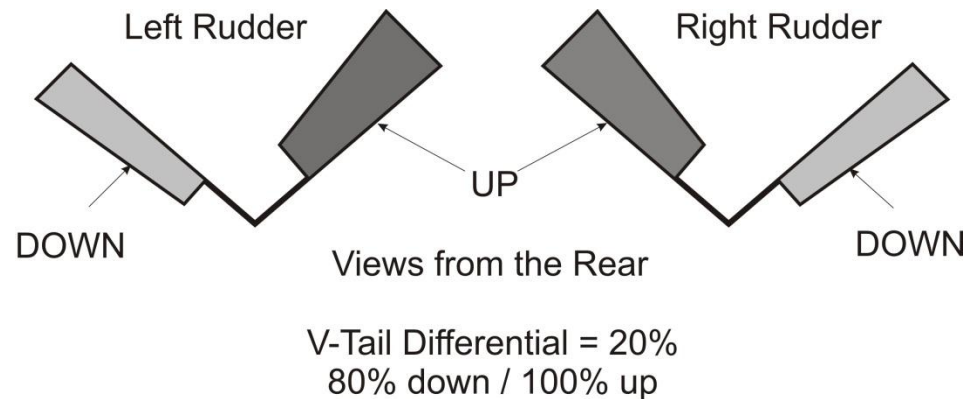


**STEP 9: Install the Nose-Pod, Install the Wing, and Balance the CG**



**STEP 10: Program the Transmitter and Set the V-tail Control Throws**

- Set up your Elf using the V-tail configuration for your transmitter. See your transmitter manual for instructions.
- V-tail movement for left and right turns and differential to initiate flat turns is depicted below.



- For the first test flights the Elevator and Rudder Control throws should travel 3/8" up.
- For the first few test flights toss your Elf straight ahead of you using an overhand throw to check the elevator and rudder settings. Make adjustments as needed.
- After you are confident that the elevator and rudder are set satisfactorily you can begin discus launching your Elf.
- Make adjustments to control throws as desired to suit your personal preferences.

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

***Kennedy Composites***

1935 Highvalley Trail  
Grand Prairie, TX 75052  
Phone: 972-602-3144

Email: [websales@kennedycomposites.com](mailto:websales@kennedycomposites.com)

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