

This is picture build instruction for JePe F-18 FastFoam (EPO bungee and retract version)



superfast! max power to weight, but still very loooong flight times !!

span: 102cm

Length: 146 cm

empty weight (incl 4x 11gram Servo+ 2x Nozzle+ ejectionseat): 900 gram

total weight incl HV ESC and 90mm StormFan + servo's + glassing/paintjob + receiver etc is 1750 gr (excl flight battery)

advised 10s 4500mAh battery weight is 1050 gram (total F18 rocket take-off weight of only 2,8 kg! / no retracts)

Fan: 1x 90mm 6-10s Best! : JePe StormFan-90HV (system F16/F18)

this standard EPO kit has NO landing gear: in the fuselage there are prepared pockets for medium size retracts and position of main gear has already been moved forwards for easy take-off. **At first in this build instruction these holes are being closed with material from the droptanks and model is used for bungee or handlaunch. If you want to install retracts than you must look at end of this instruction**

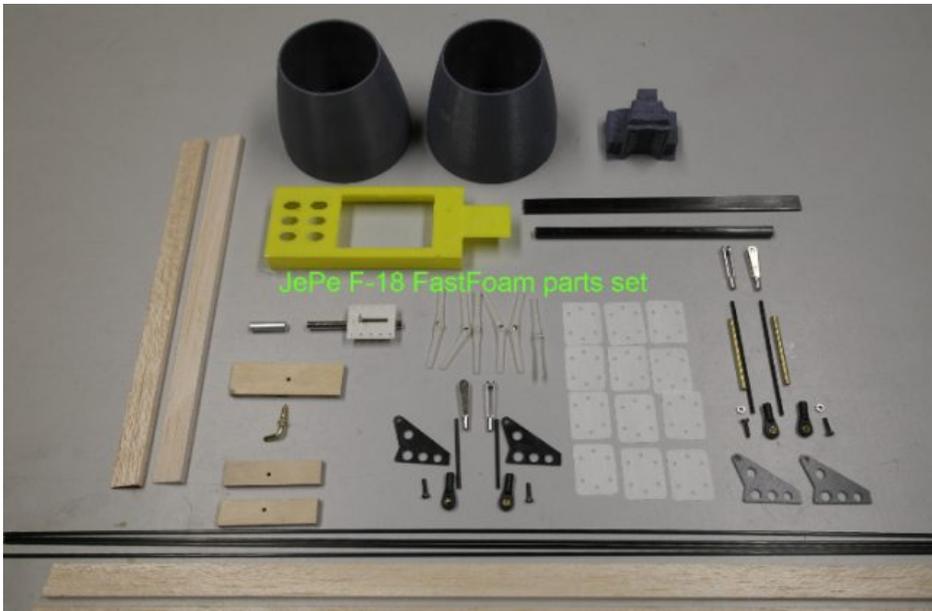
shop



Very good quality EPO Foam Parts + clear canopy

carbon tubes inside wing and elevator panels

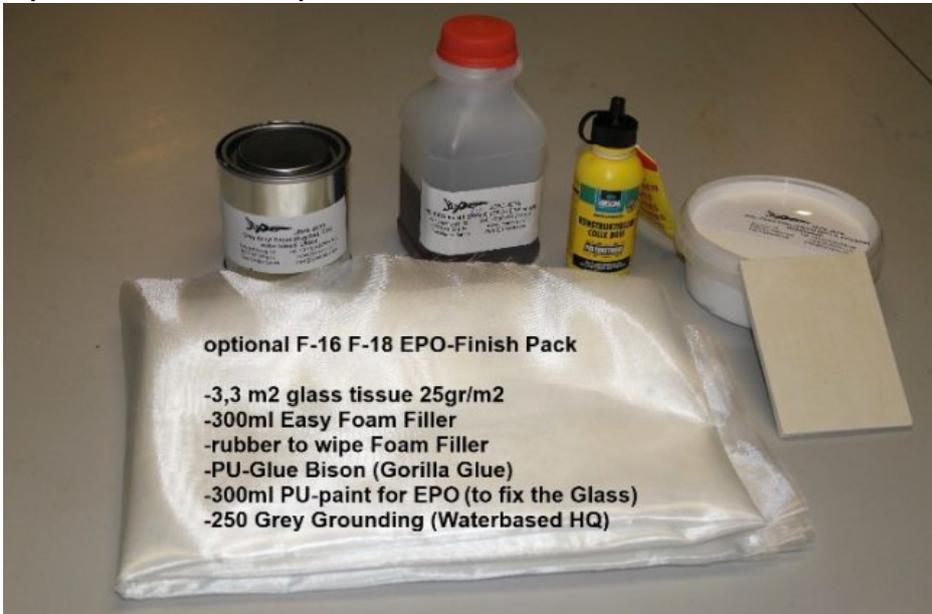
complete set of JePe FastFoam Parts + 3-D prints+ control horns + carbon spars



JePe F-18 FastFoam parts set

JePe F-18 FastFoam upgrade parts set comes standard with our kit

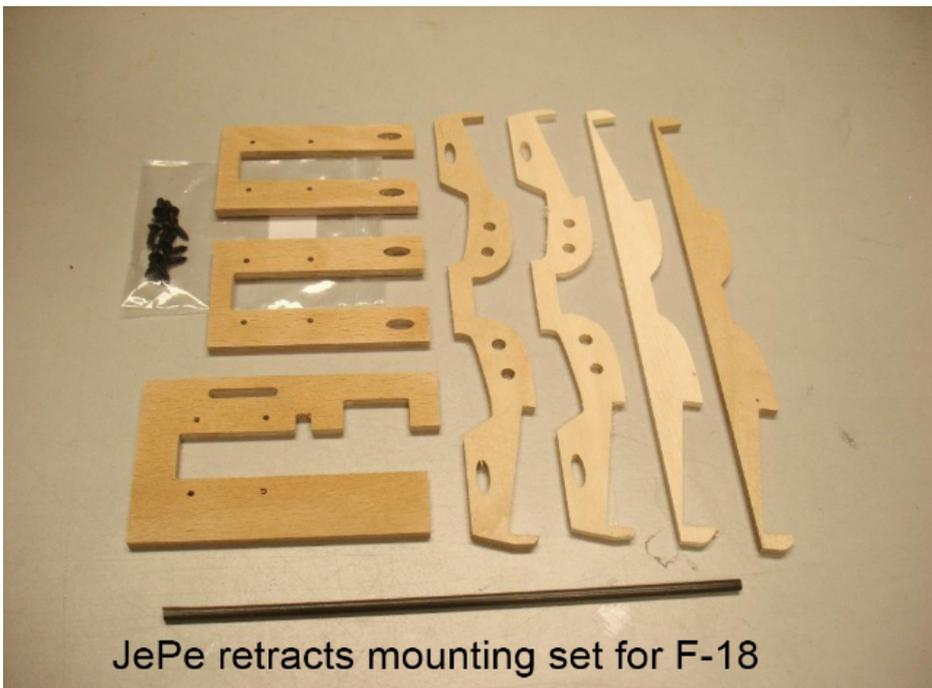
**Optional from JePe Shop:**



**optional F-16 F-18 EPO-Finish Pack**

- 3,3 m2 glass tissue 25gr/m2
- 300ml Easy Foam Filler
- rubber to wipe Foam Filler
- PU-Glue Bison (Gorilla Glue)
- 300ml PU-paint for EPO (to fix the Glass)
- 250 Grey Grounding (Waterbased HQ)

Optional from JePe Shop: EPO Glassfinish pack for F-16/F-18



**JePe retracts mounting set for F-18**

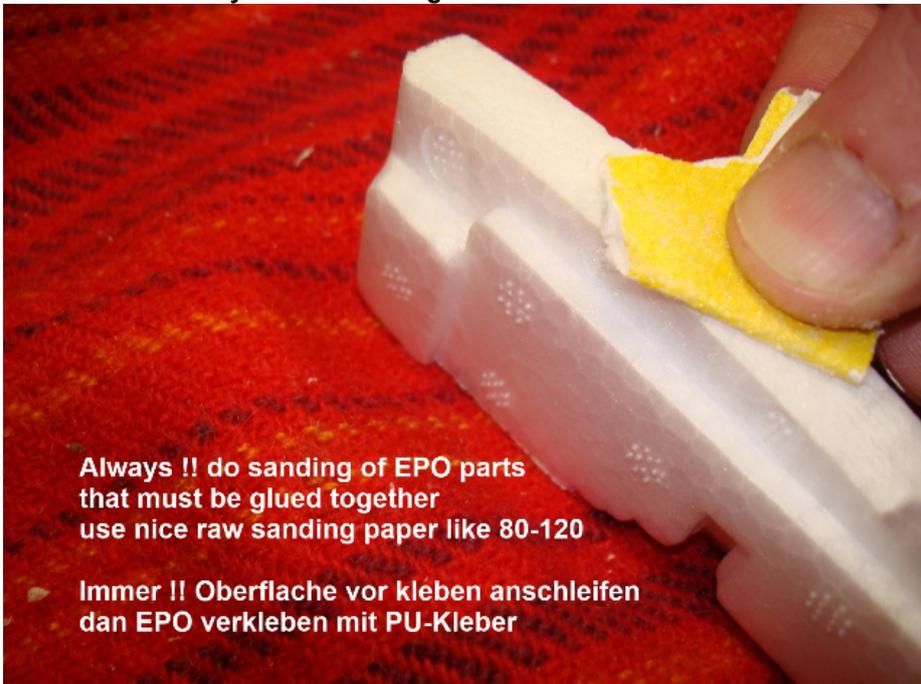
optional CNC Plywood construction for Freewing Landing Gear

## landing Gear (F18 Freewing)



Optional Freewing Landing Gear from our onlineshop

### Check this before you start building:

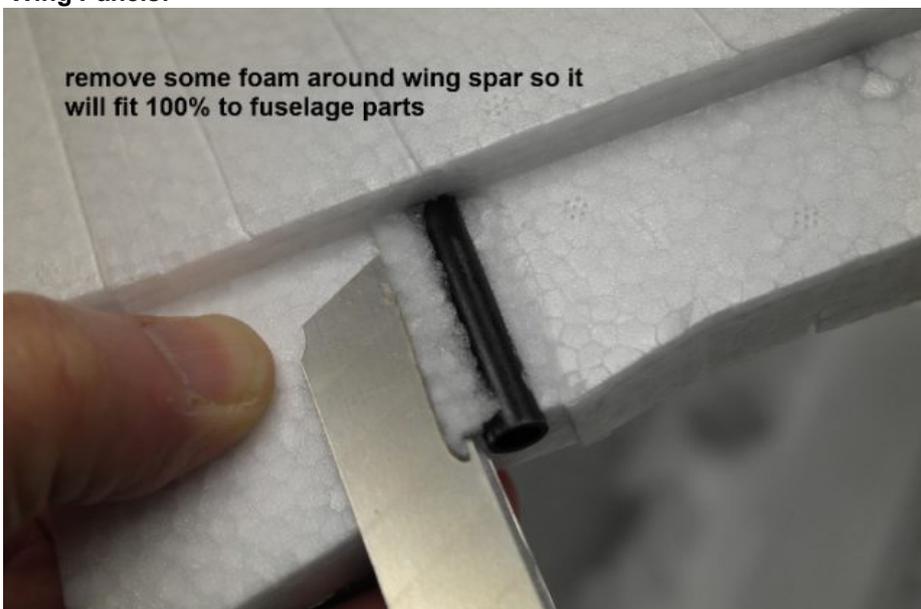


Always !! do sanding of EPO parts  
that must be glued together  
use nice raw sanding paper like 80-120

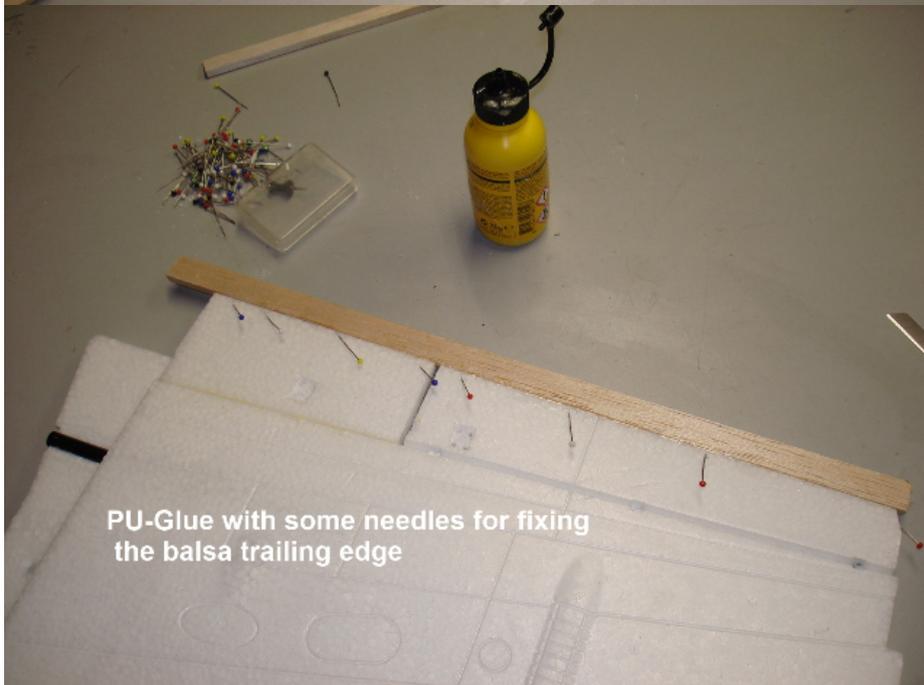
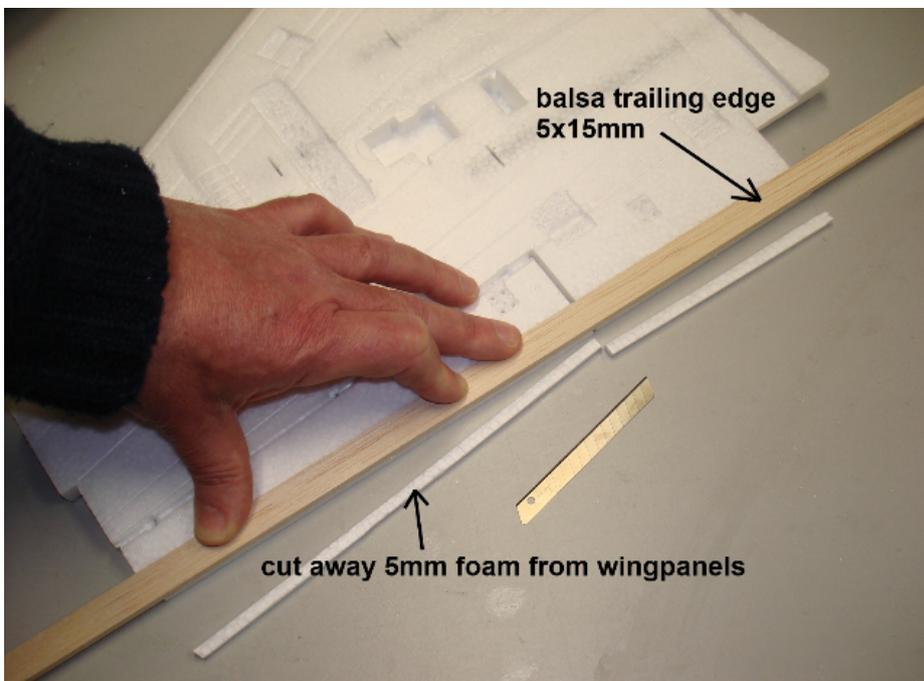
Immer !! Oberfläche vor kleben anschleifen  
dan EPO verkleben mit PU-Kleber

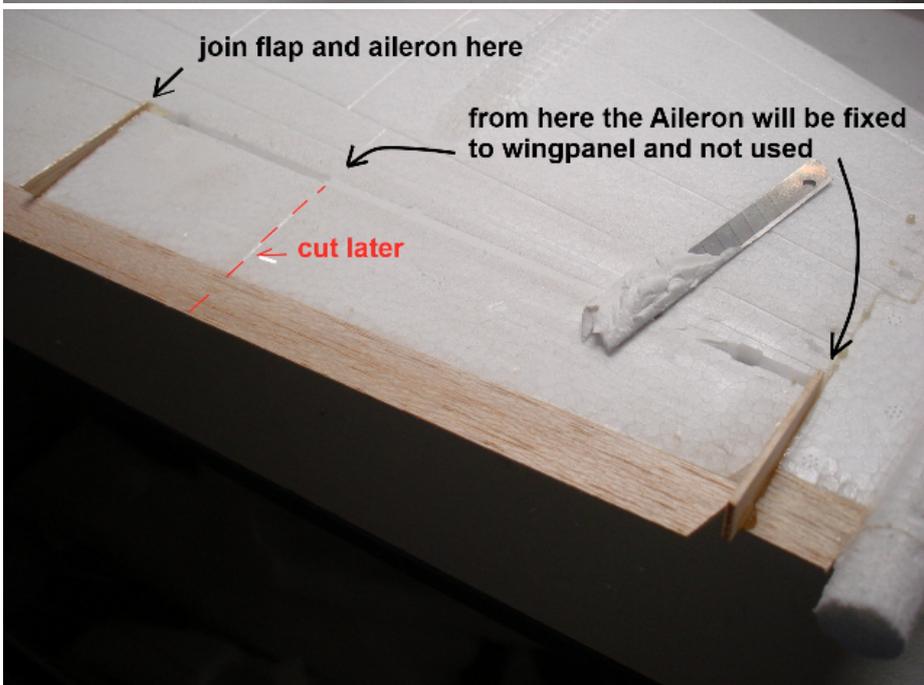
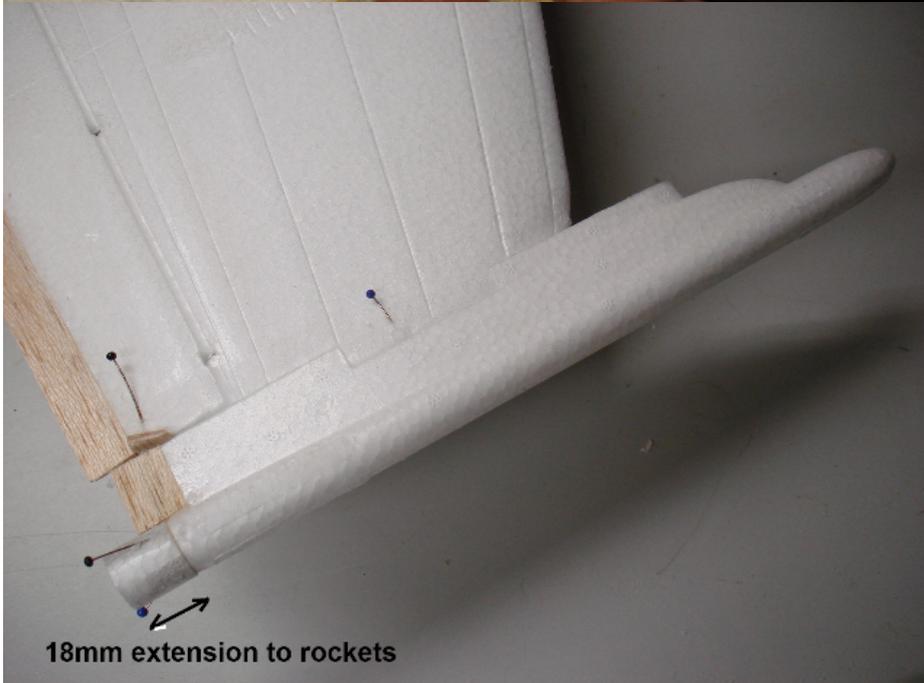
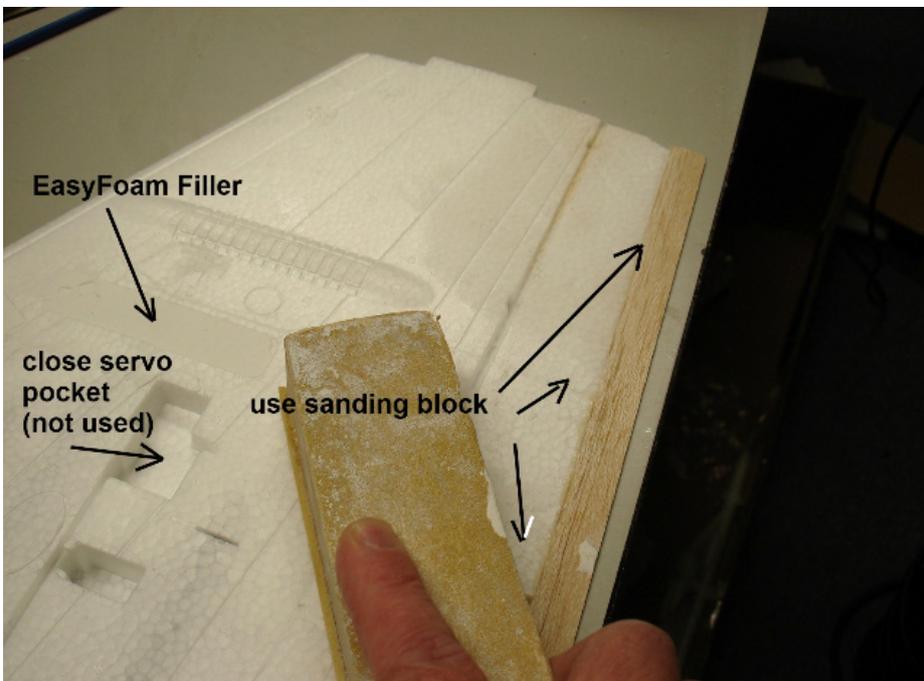
### Let's start building!!

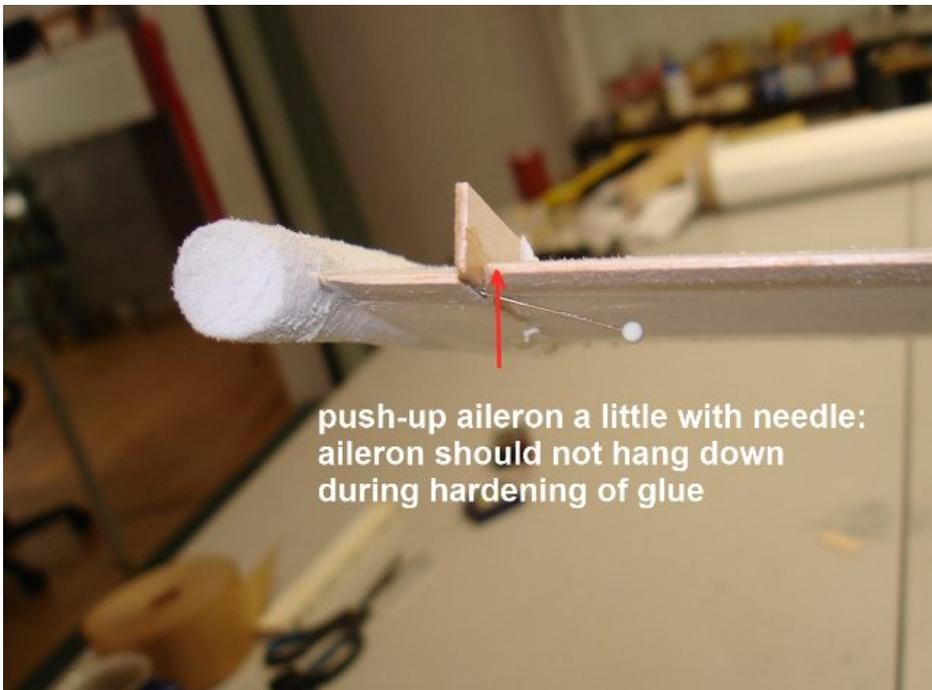
#### Wing Panels:



remove some foam around wing spar so it  
will fit 100% to fuselage parts

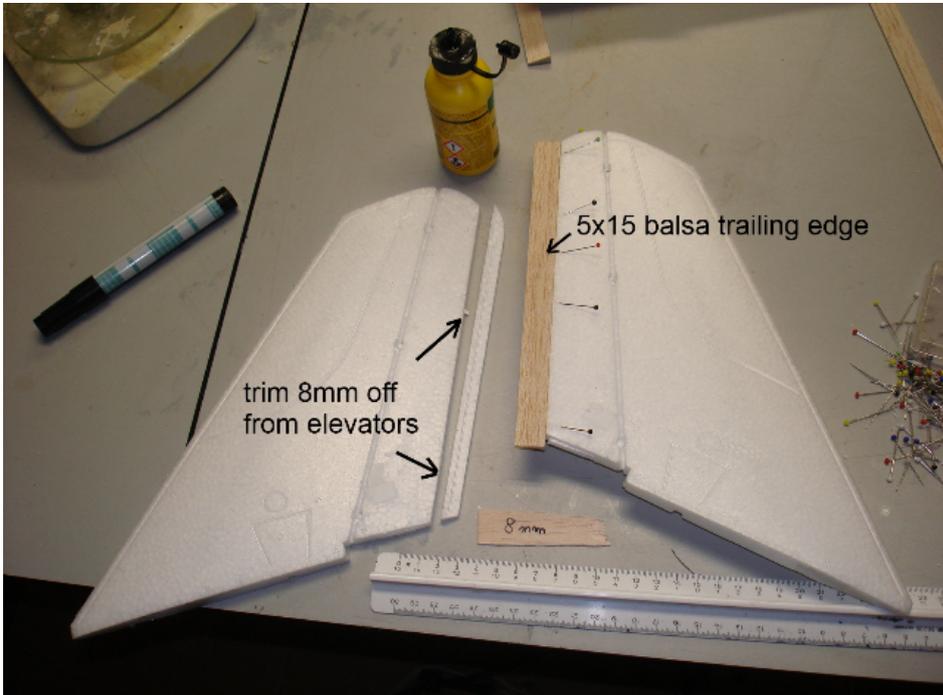






push-up aileron a little with needle:  
aileron should not hang down  
during hardening of glue

Tail Panels:



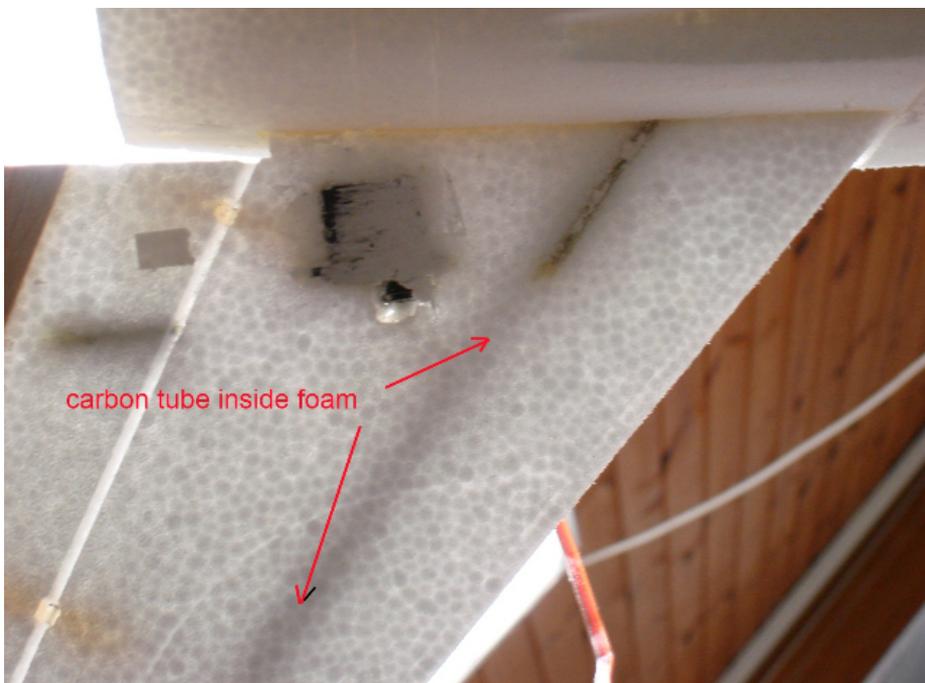
5x15 balsa trailing edge

trim 8mm off  
from elevators

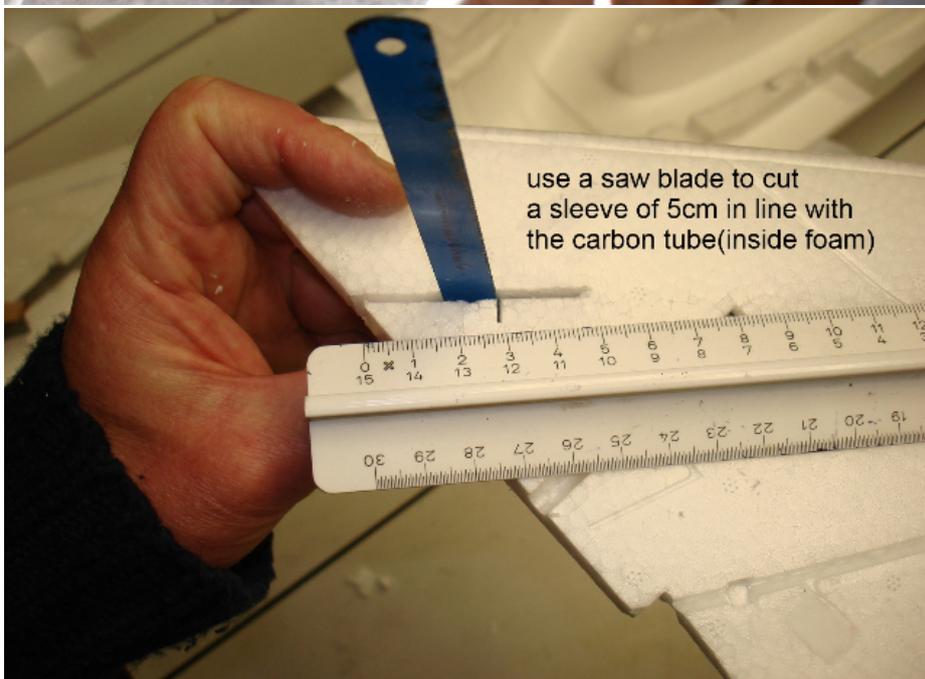
8mm



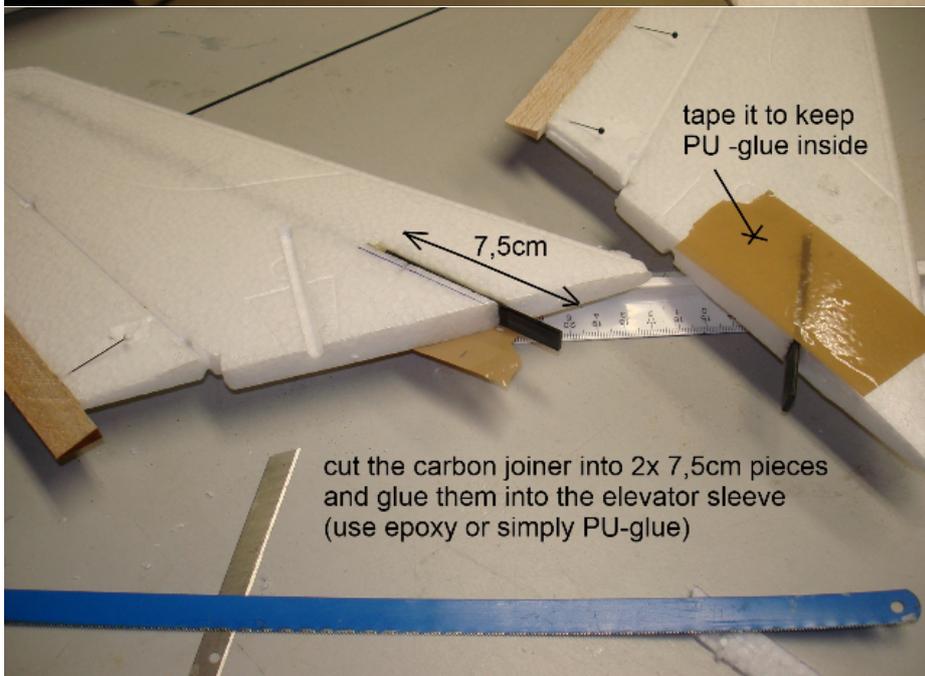
always use flat sanding block  
were possible (on flat surface)



carbon tube inside foam



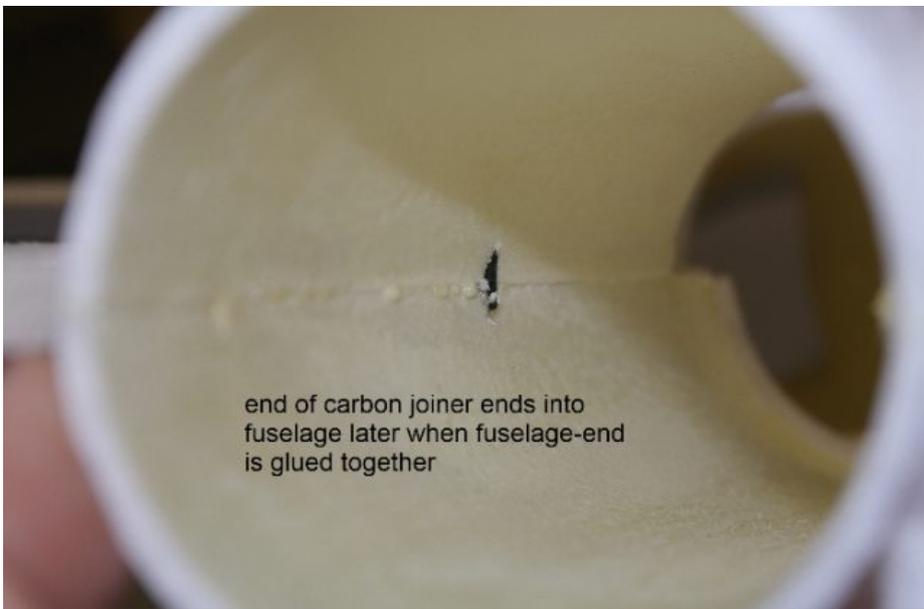
use a saw blade to cut a sleeve of 5cm in line with the carbon tube (inside foam)



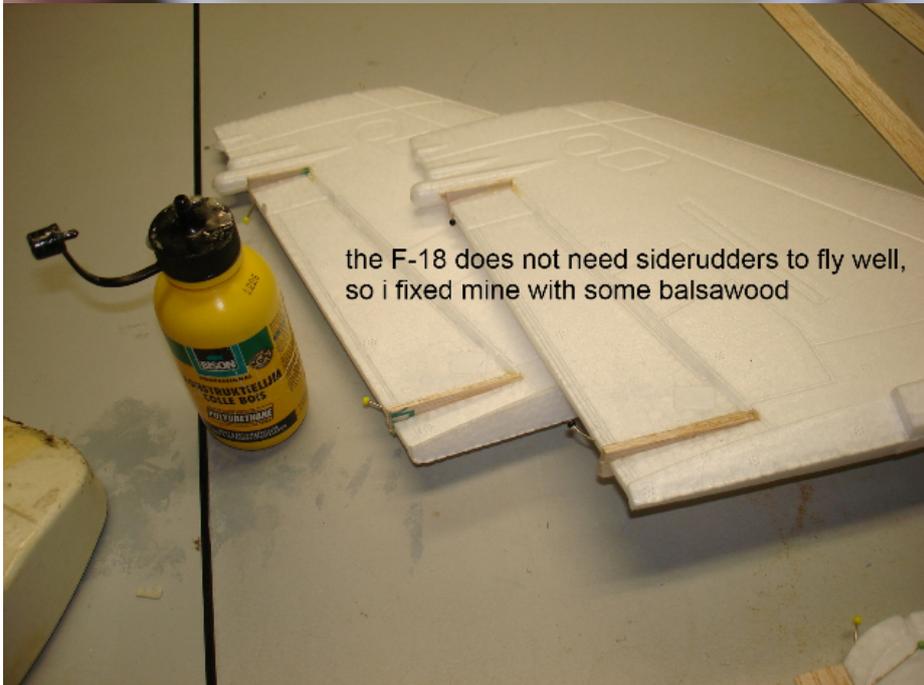
tape it to keep PU-glue inside

7,5cm

cut the carbon joiner into 2x 7,5cm pieces and glue them into the elevator sleeve (use epoxy or simply PU-glue)

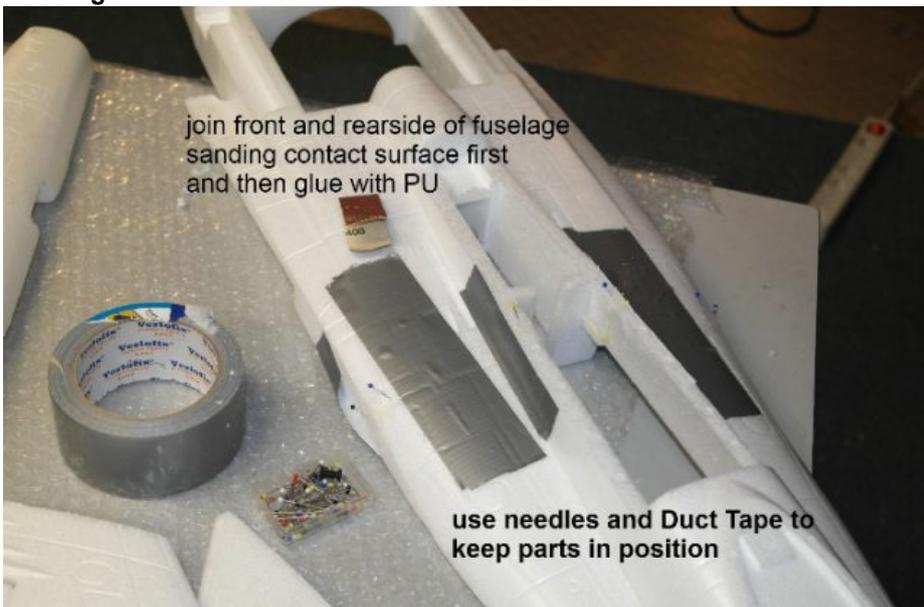


end of carbon joiner ends into fuselage later when fuselage-end is glued together



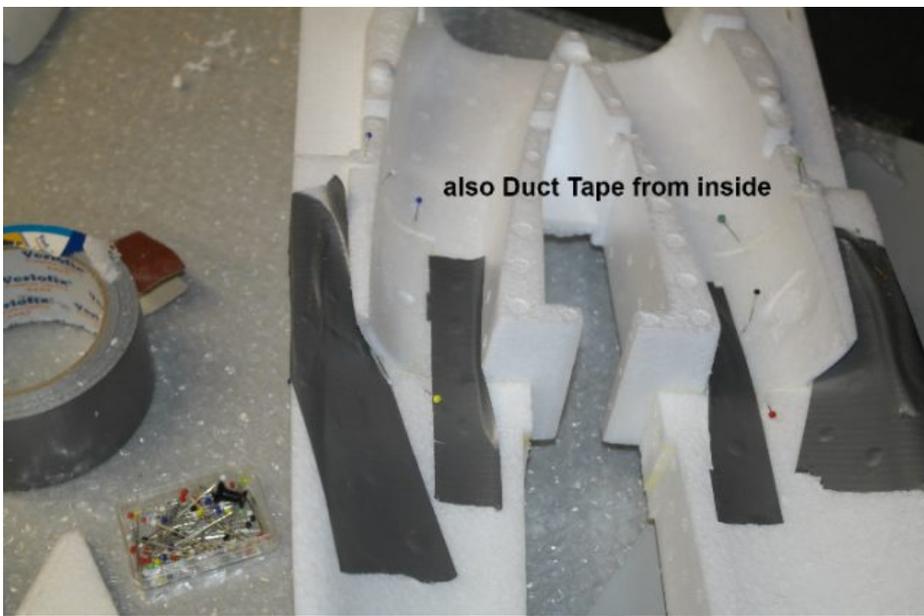
the F-18 does not need siderudders to fly well, so i fixed mine with some balsawood

### Fuselage:



join front and rear side of fuselage sanding contact surface first and then glue with PU

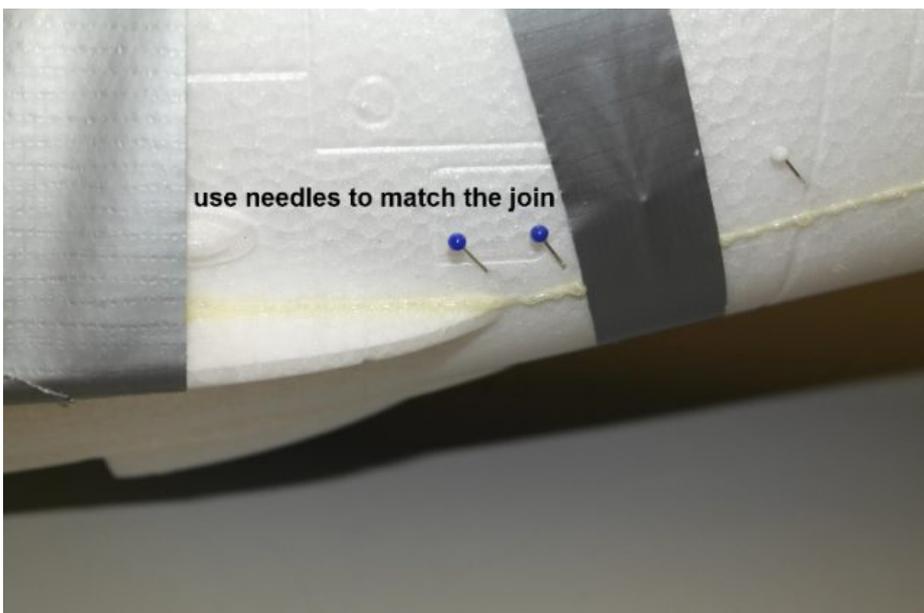
use needles and Duct Tape to keep parts in position



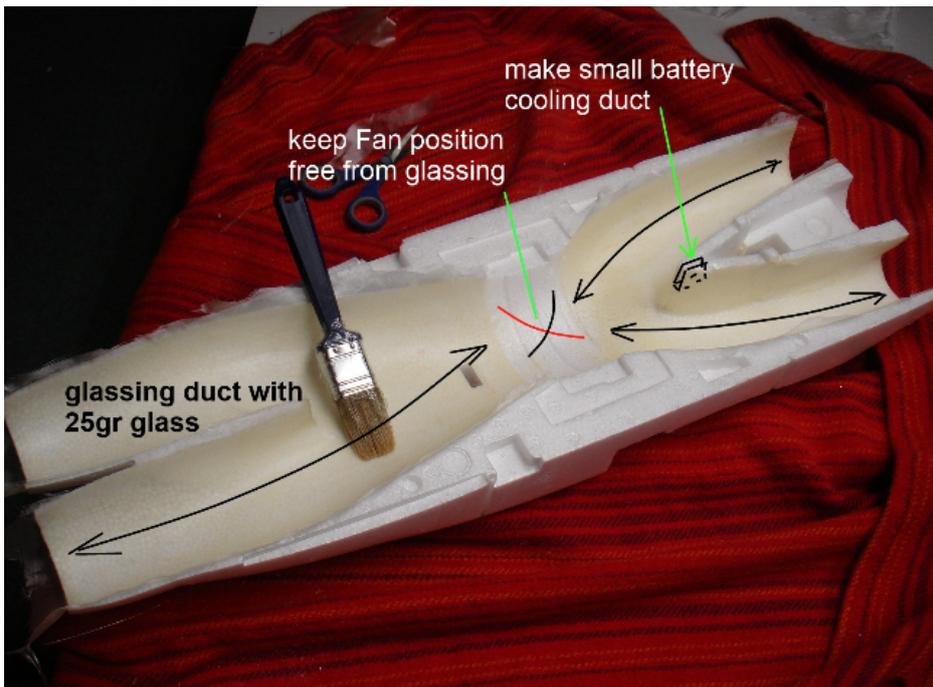
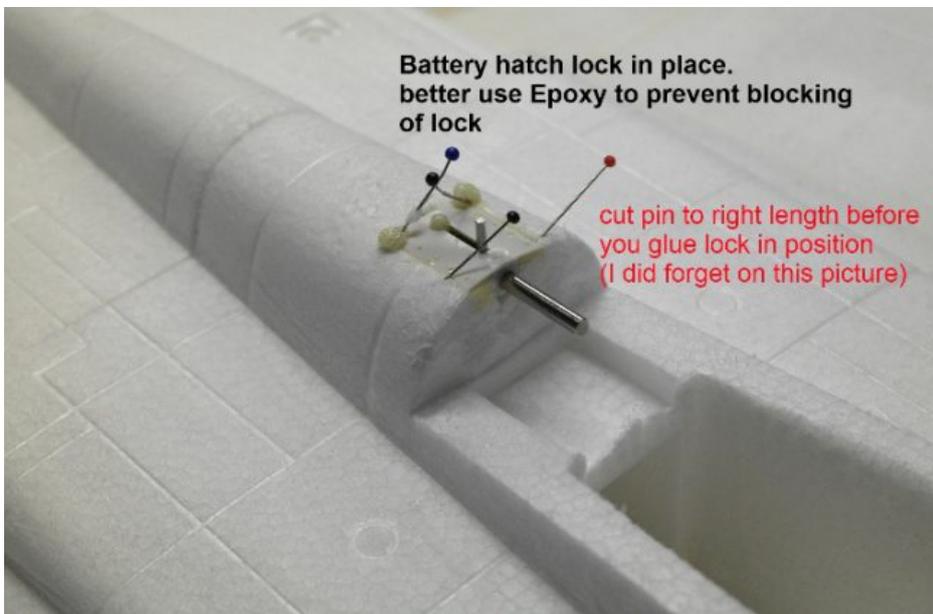
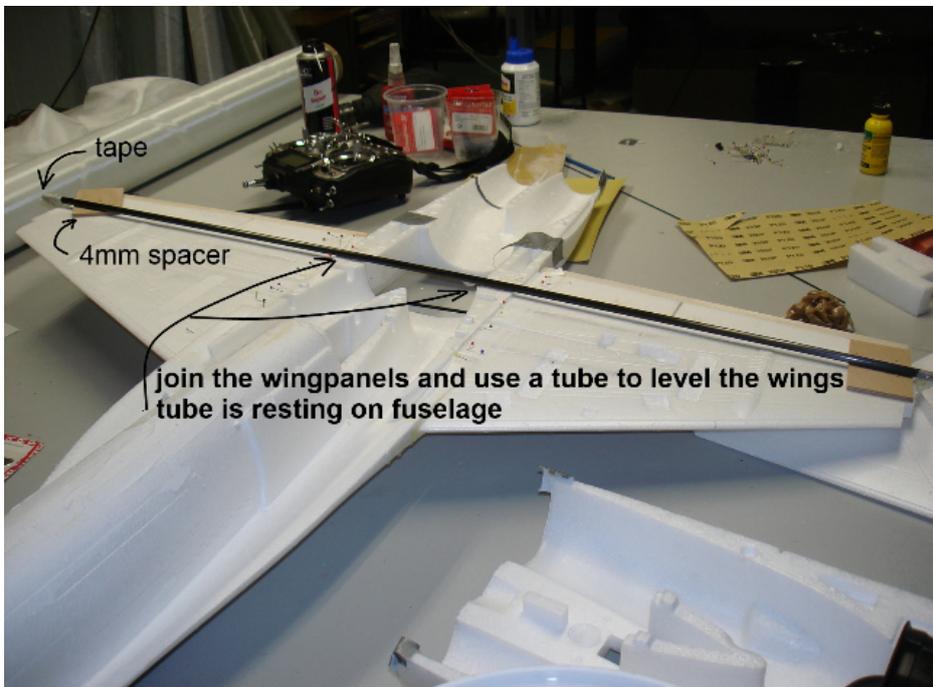
also Duct Tape from inside

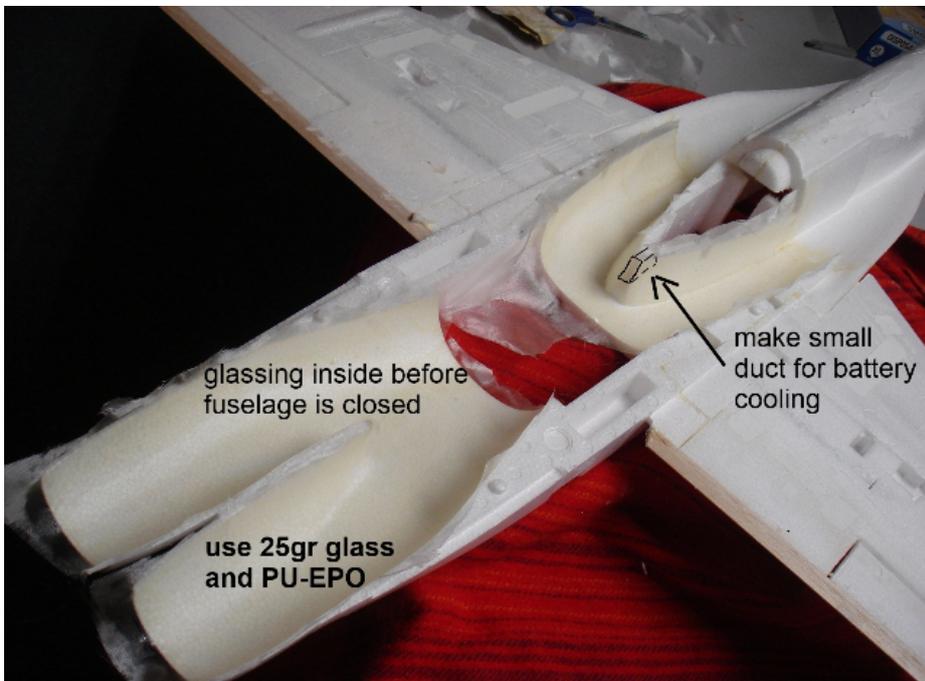


and join the Nose section  
(underside)



use needles to match the join

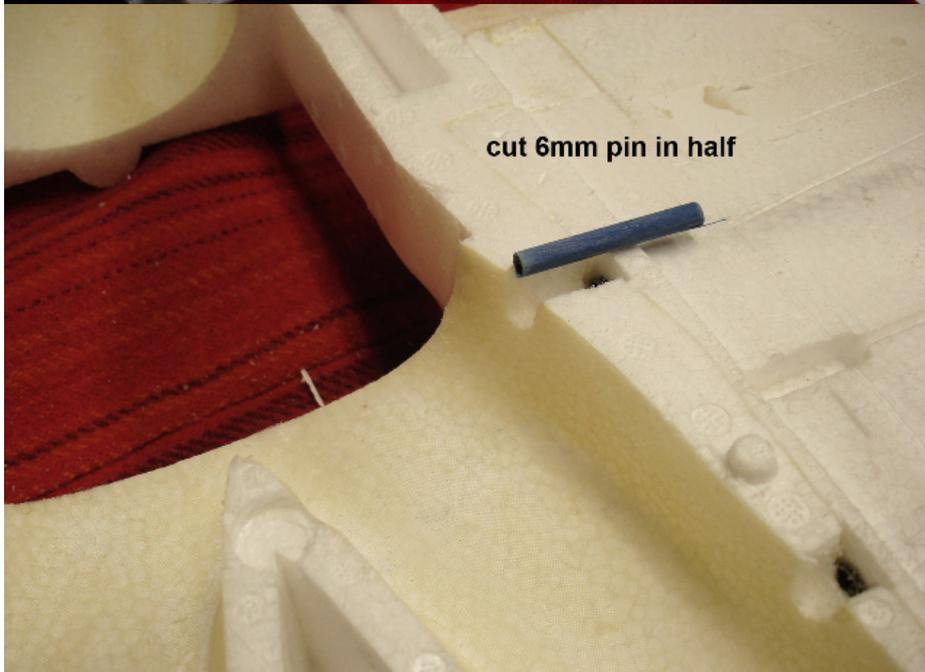




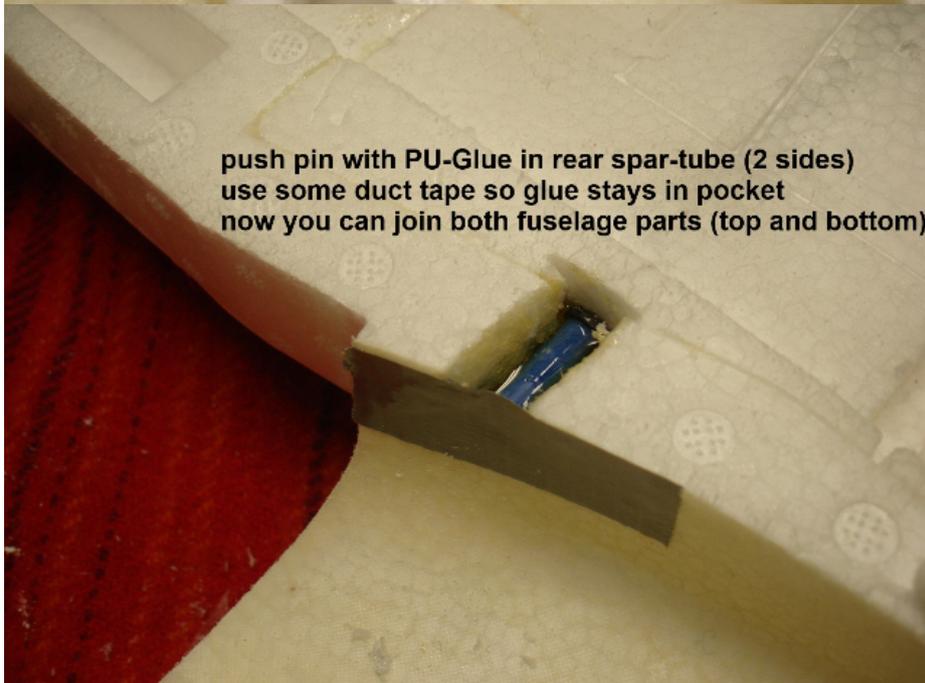
glassing inside before fuselage is closed

make small duct for battery cooling

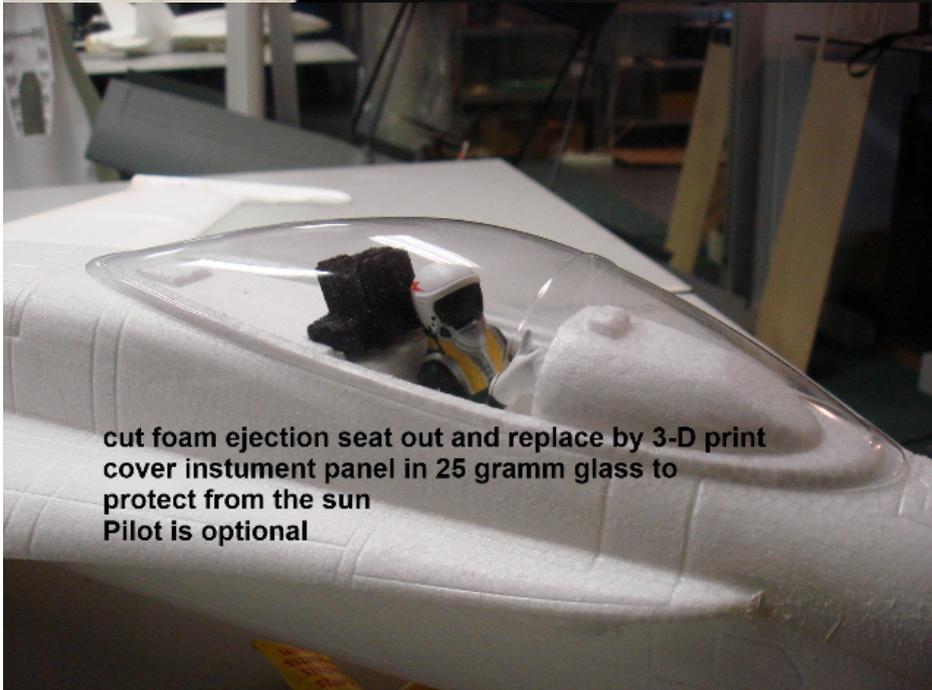
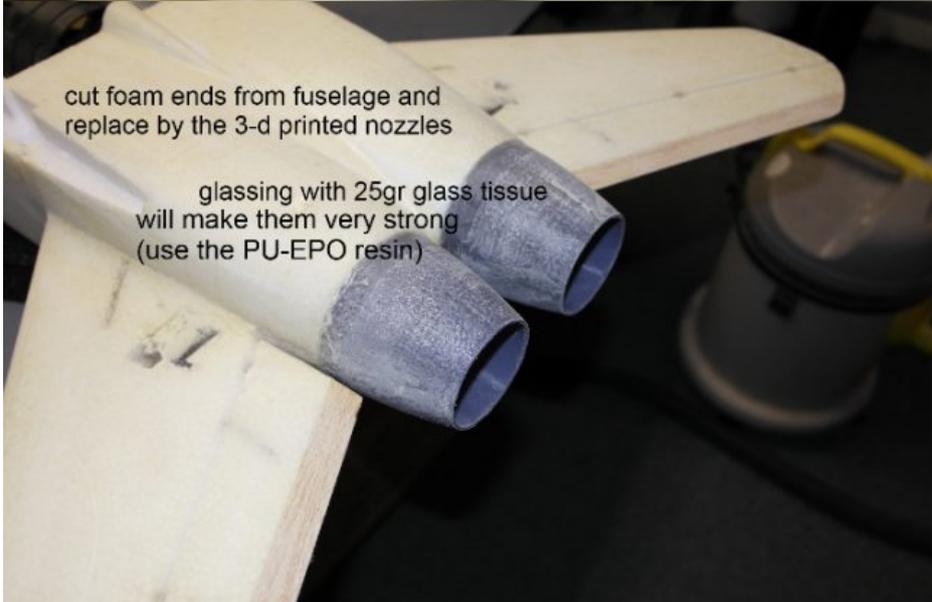
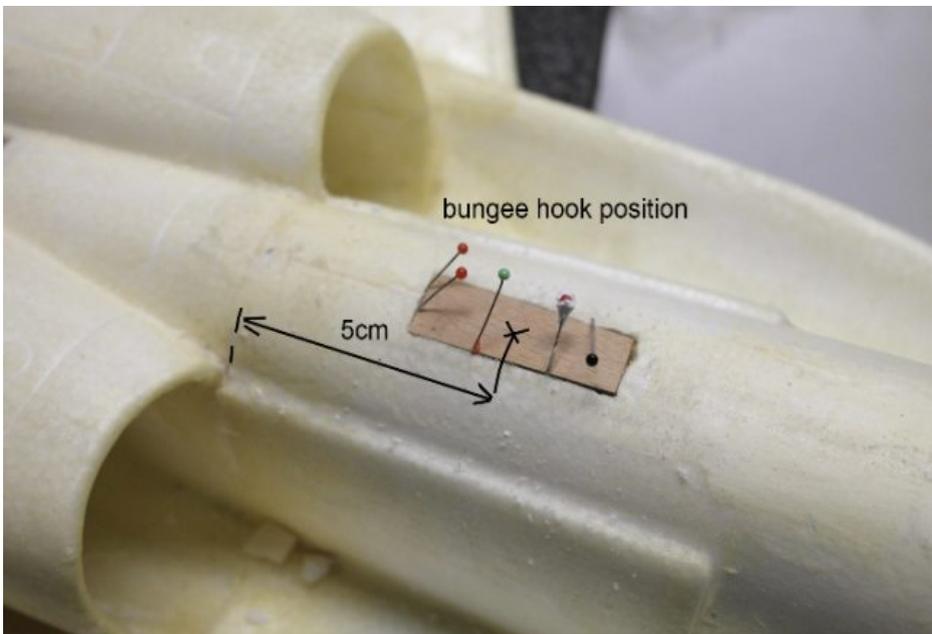
use 25gr glass and PU-EPO



cut 6mm pin in half

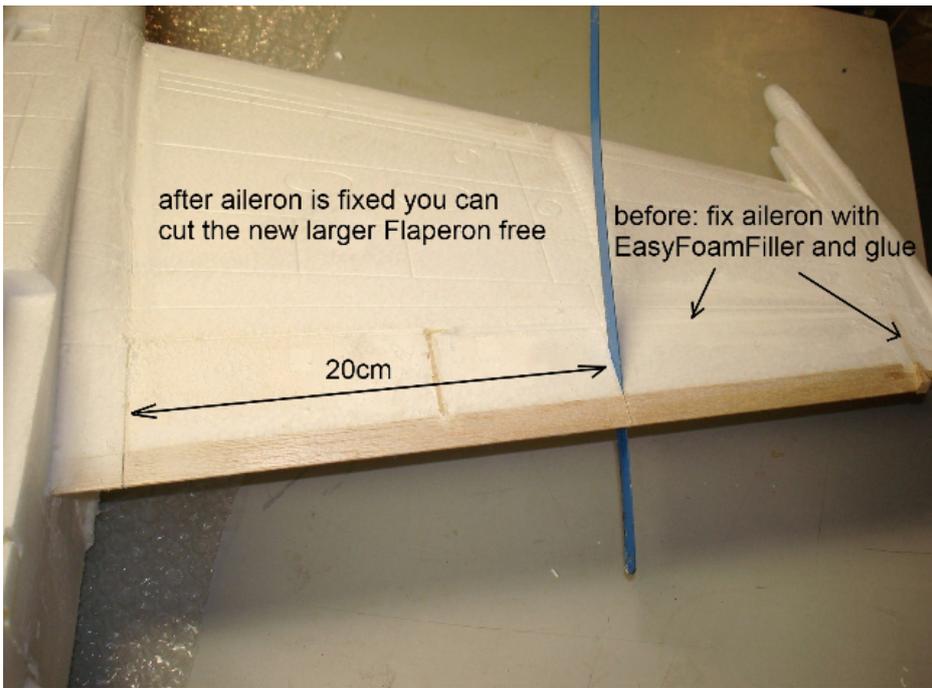
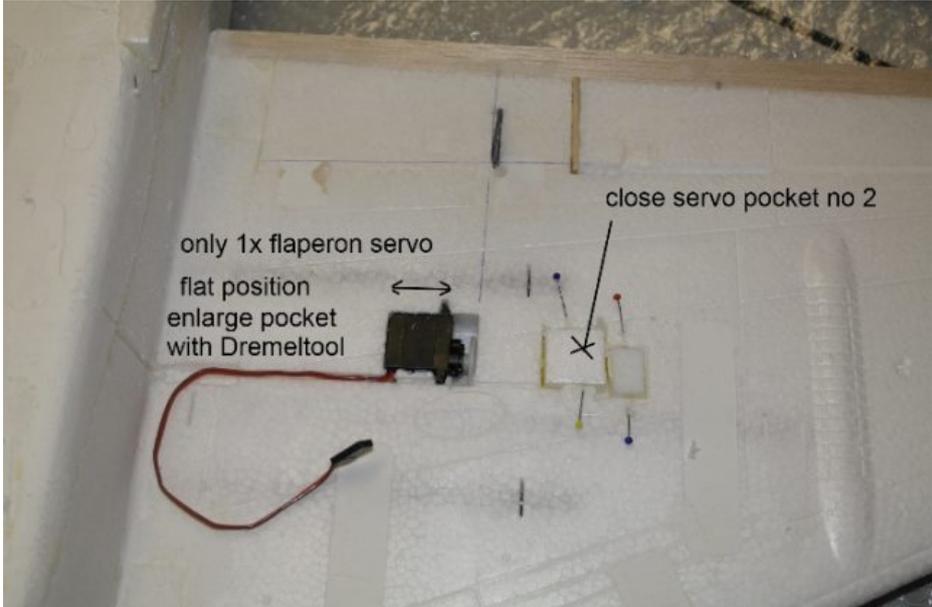


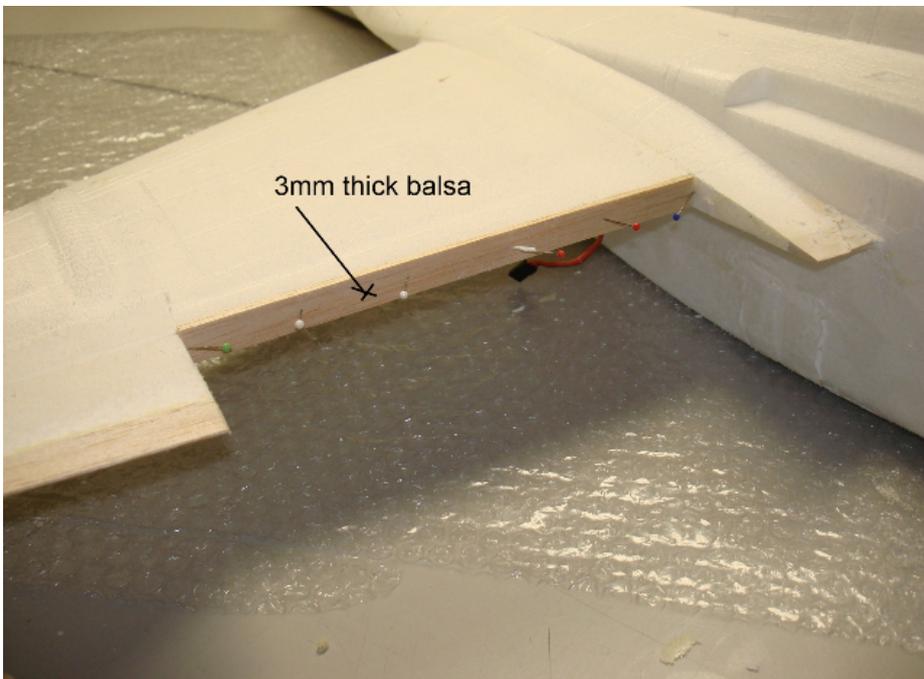
push pin with PU-Glue in rear spar-tube (2 sides)  
use some duct tape so glue stays in pocket  
now you can join both fuselage parts (top and bottom)





**Servo's and Rudders:**

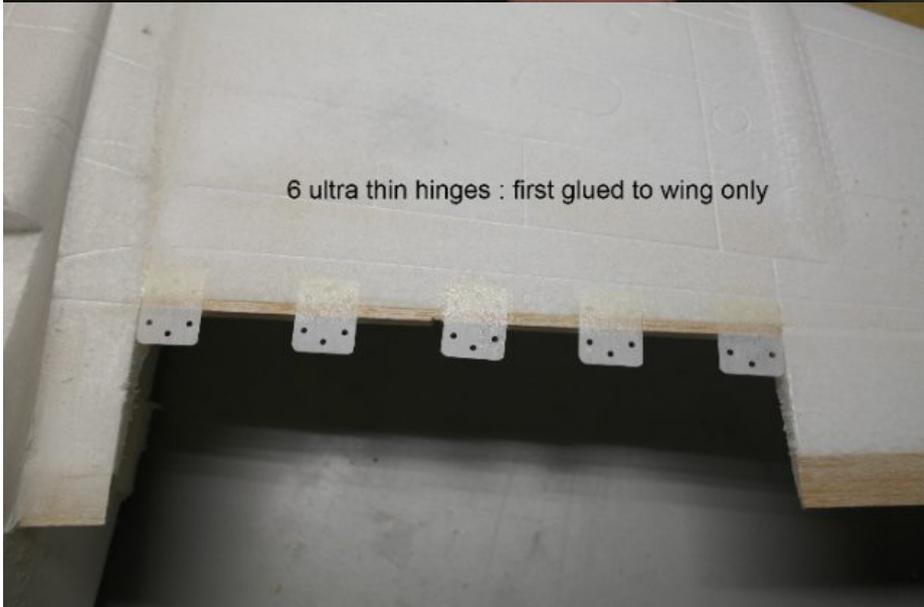




3mm thick balsa

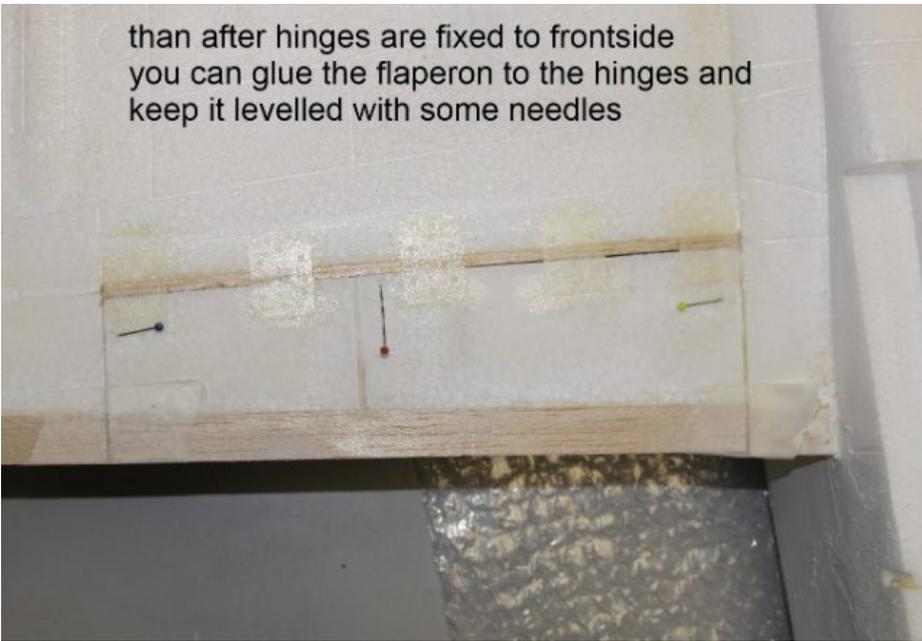


glue with good quality Epoxy  
the 6 thin hinges on topside of wing surface  
glue only frontside , clean with tissue



6 ultra thin hinges : first glued to wing only

than after hinges are fixed to frontside  
you can glue the flaperon to the hinges and  
keep it levelled with some needles

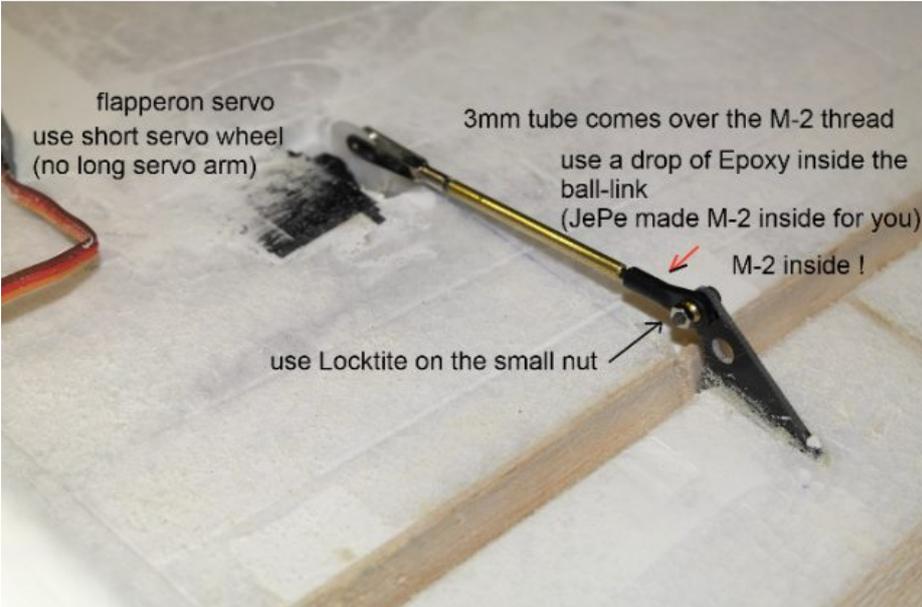


flapperon servo  
use short servo wheel  
(no long servo arm)

3mm tube comes over the M-2 thread  
use a drop of Epoxy inside the  
ball-link  
(JePe made M-2 inside for you)

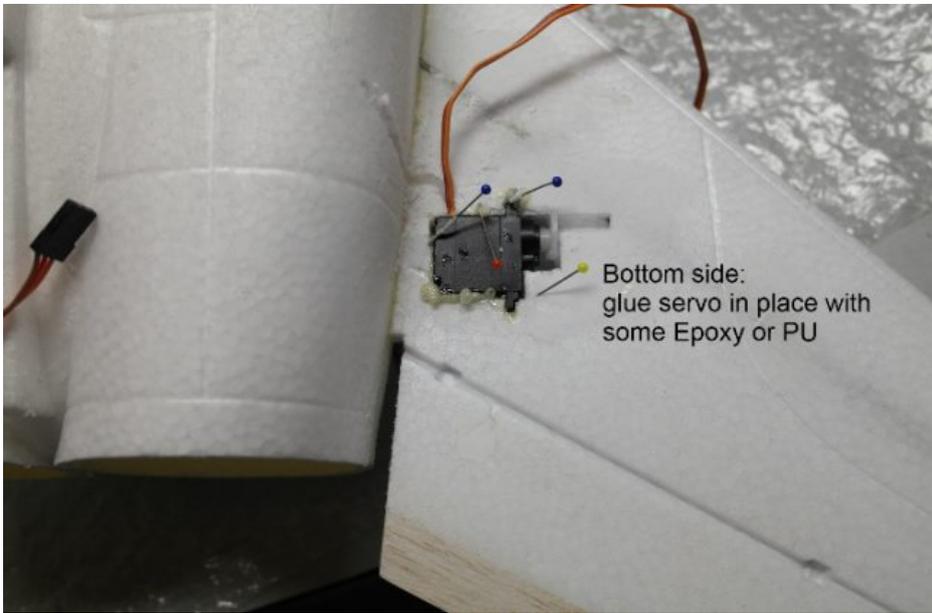
use Locktite on the small nut

M-2 inside !



JePe FastFoam kit ball-links have already M-2 thread inside  
use a drop of good quality Epoxy to secure extra safe.





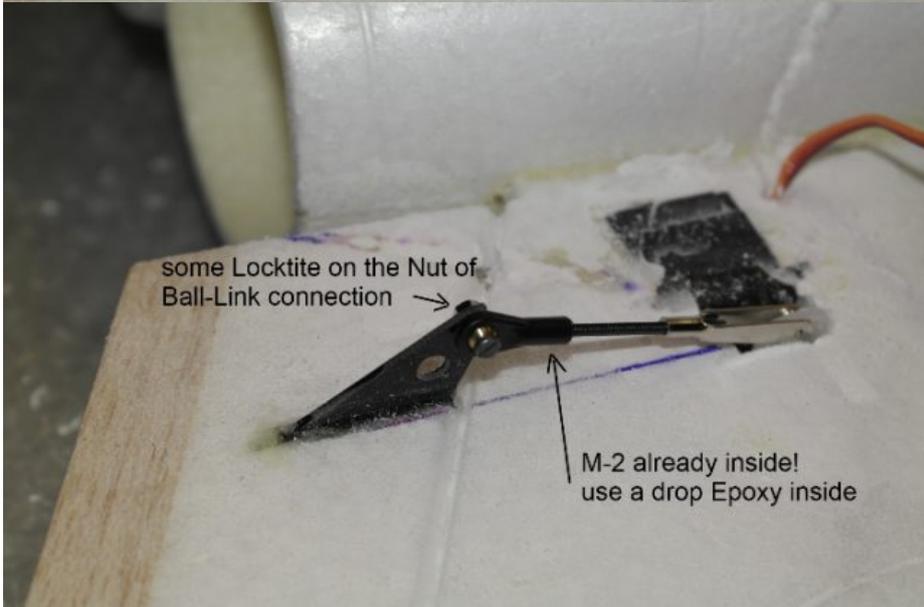
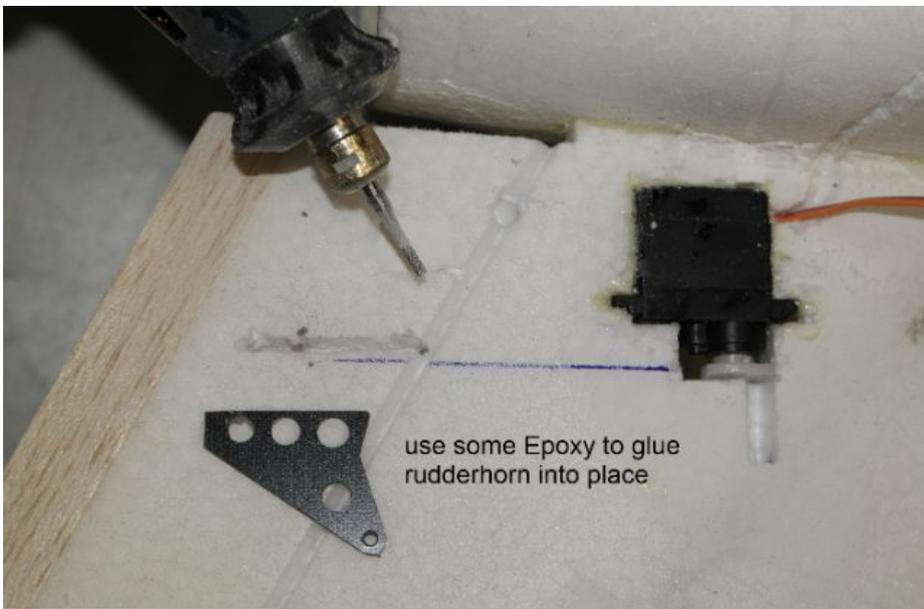
Bottom side:  
glue servo in place with  
some Epoxy or PU



topside of elevators:  
use some tape to stop glue

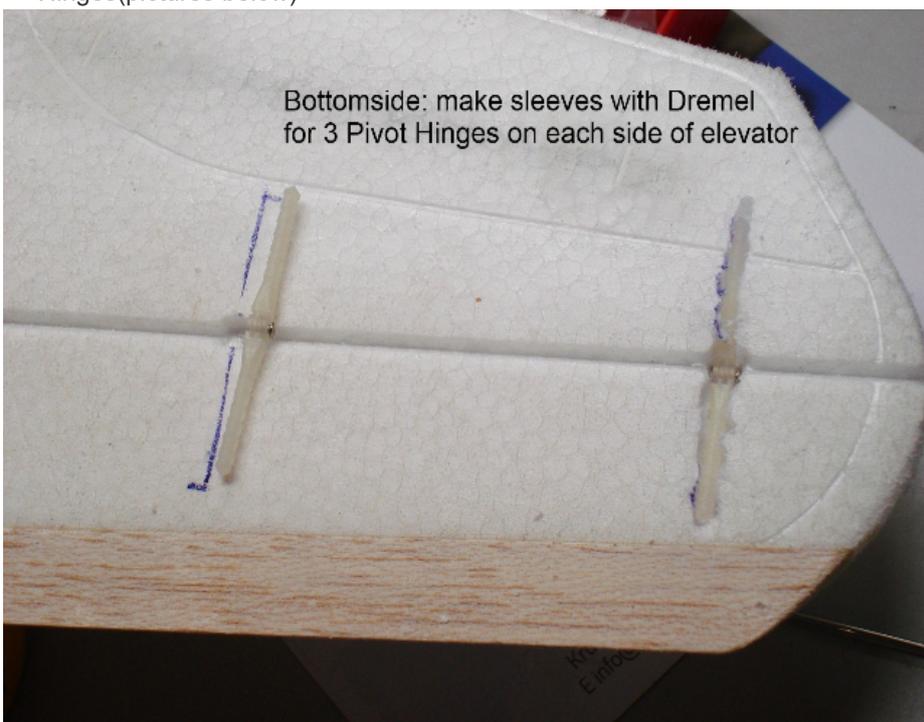


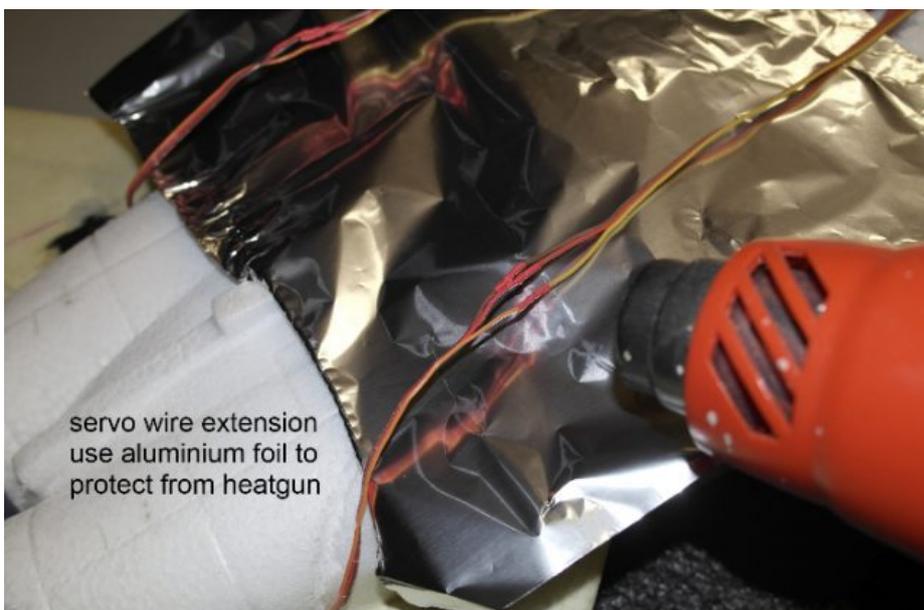
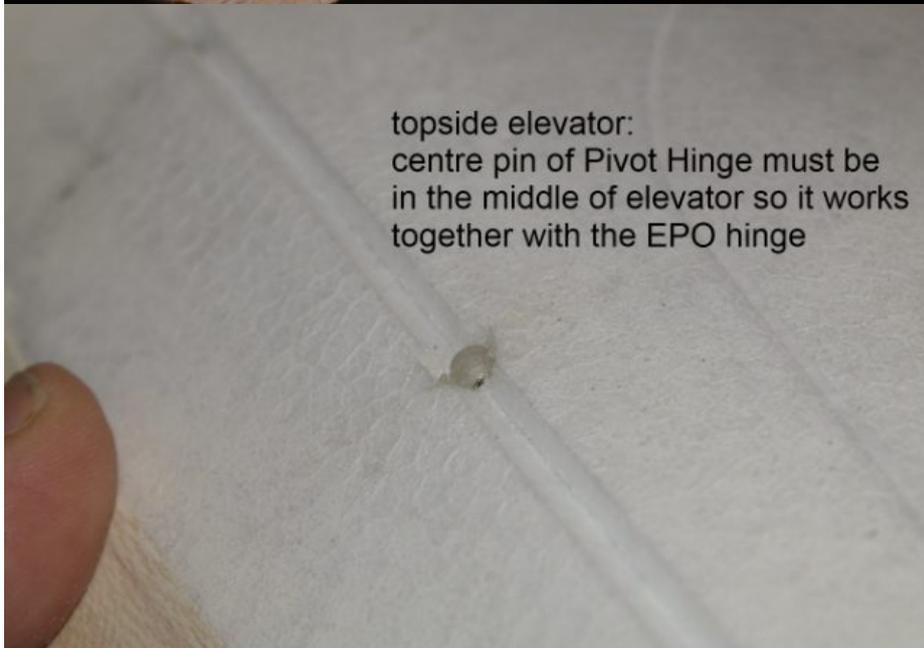
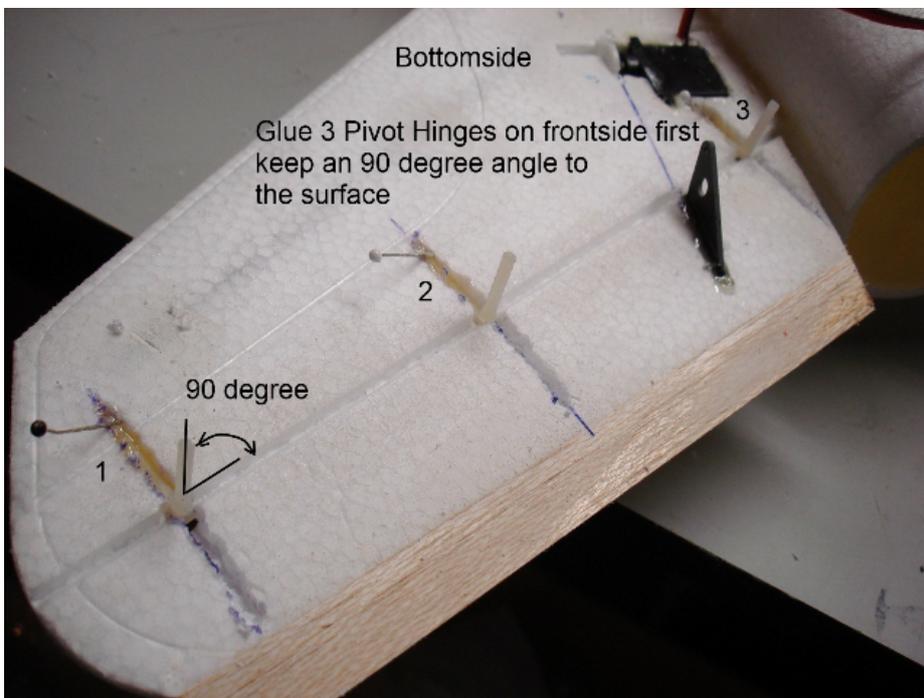
I used my Dremel and some  
EasyFoamFiller to clean it up  
(topside)

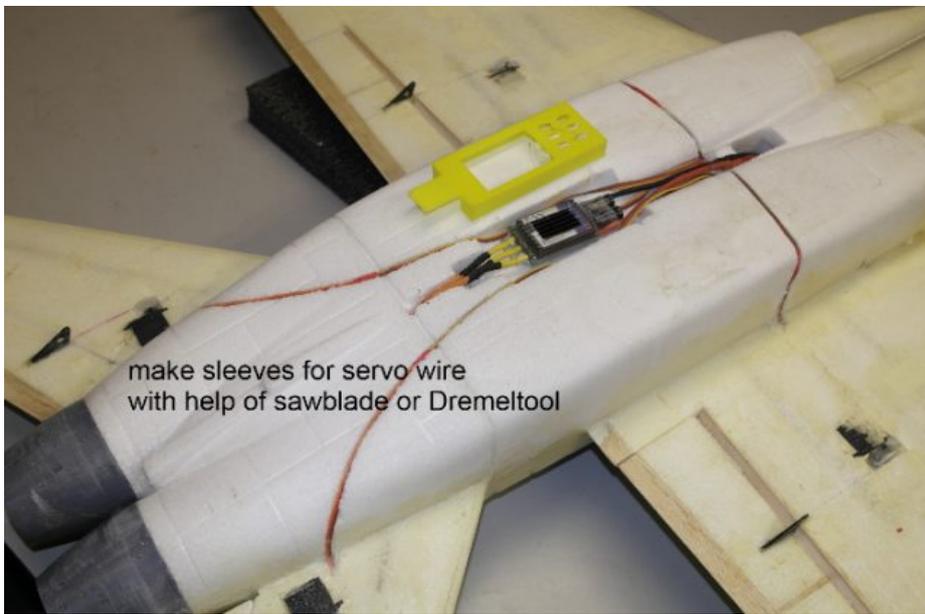


**Hinging the elevators:**

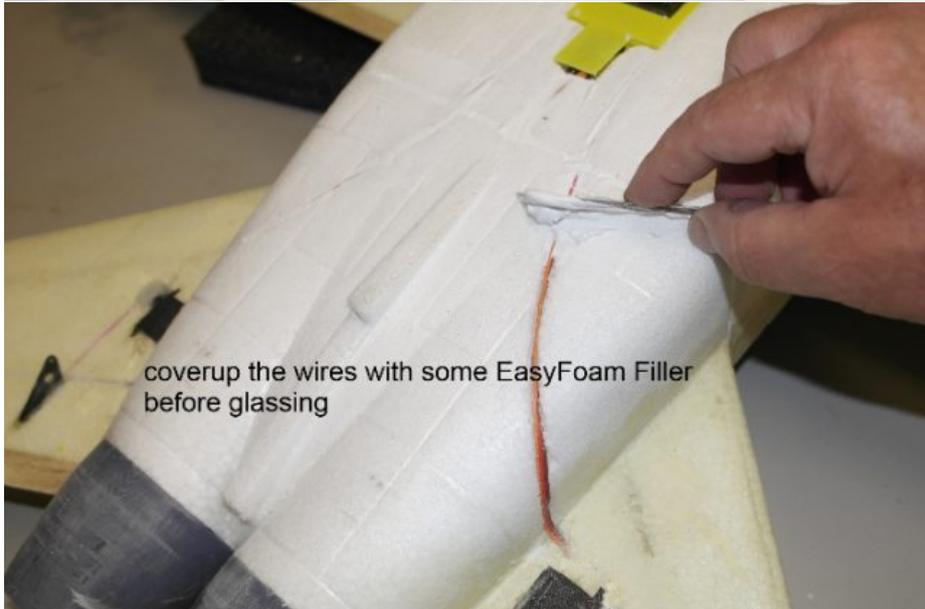
Best way: use both the factory made EPO hinges of elevators + additional Pivot Hinges(pictures below)



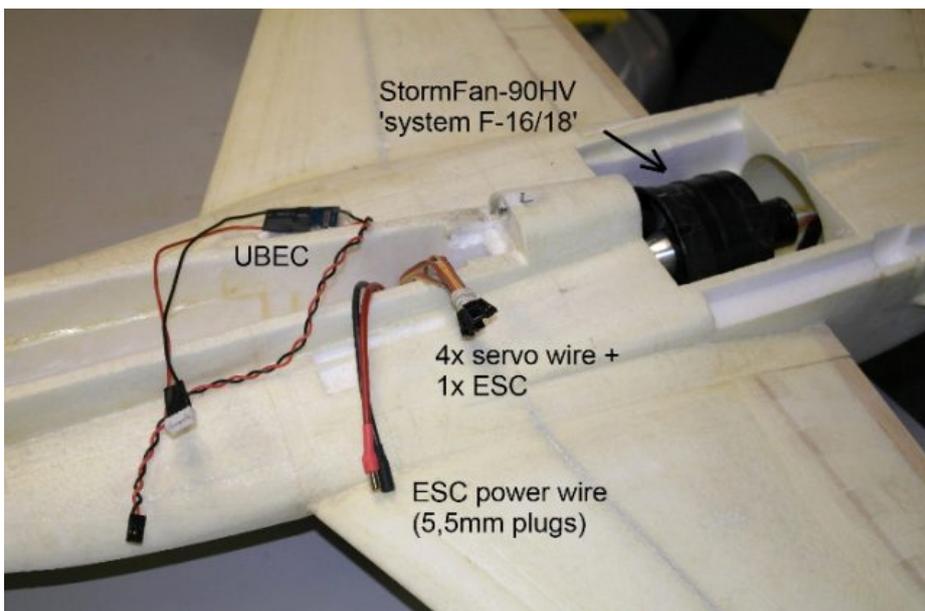




make sleeves for servo wire  
with help of sawblade or Dremeltool



coverup the wires with some EasyFoam Filler  
before glassing



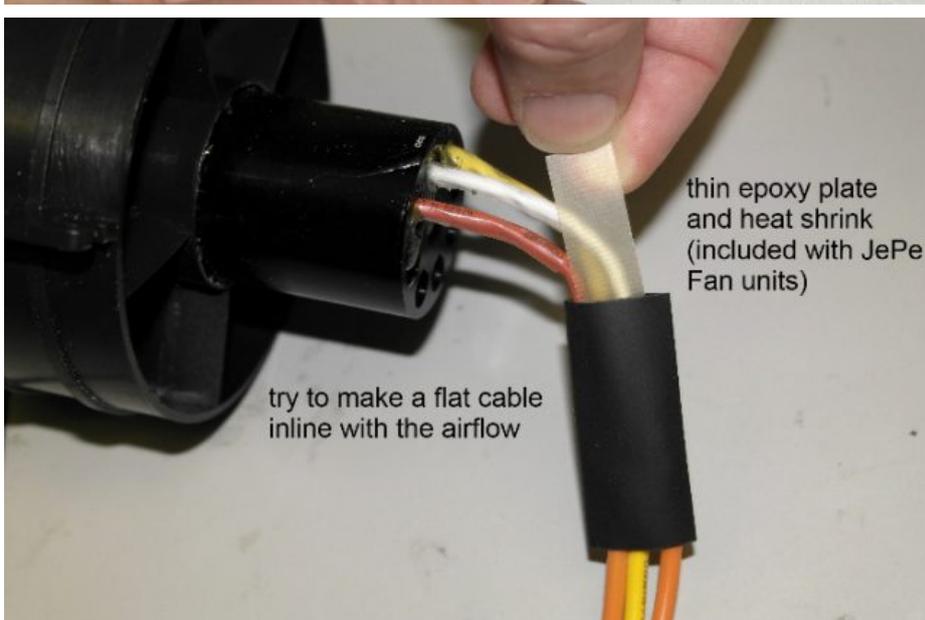
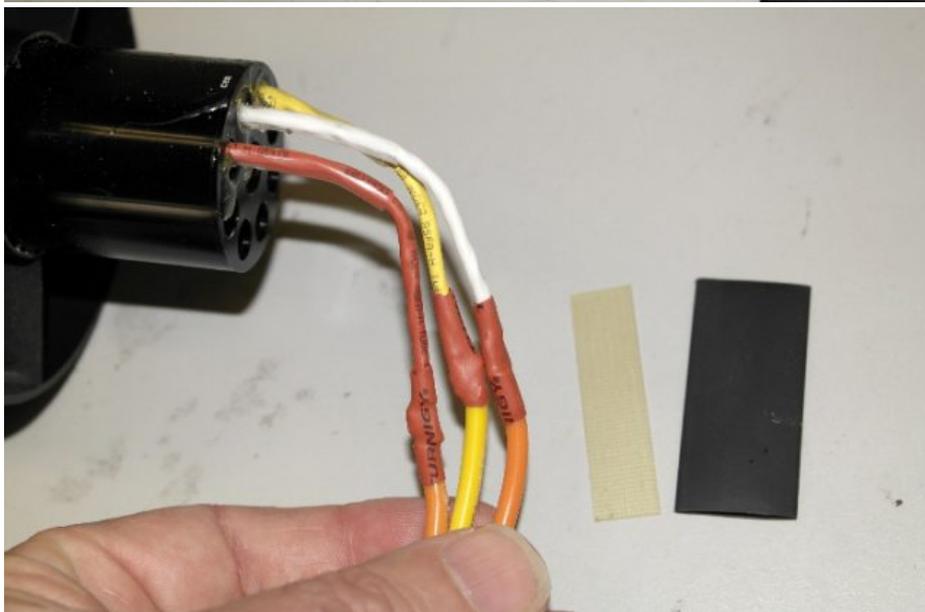
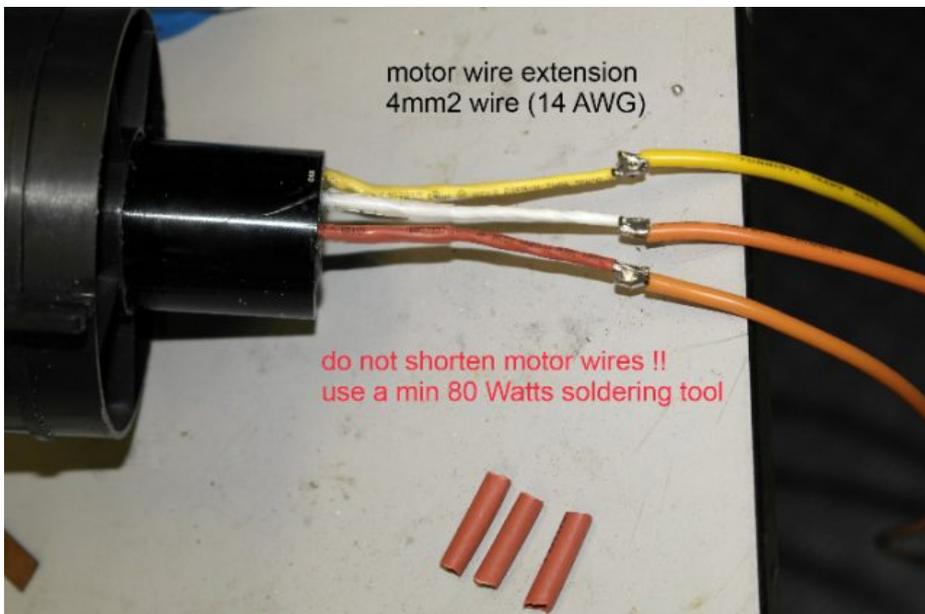
StormFan-90HV  
'system F-16/18'

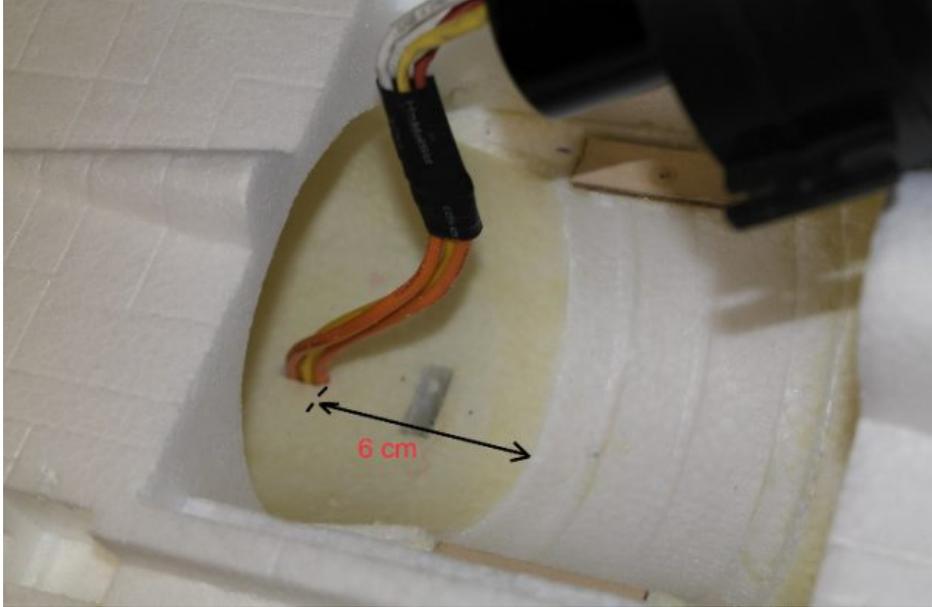
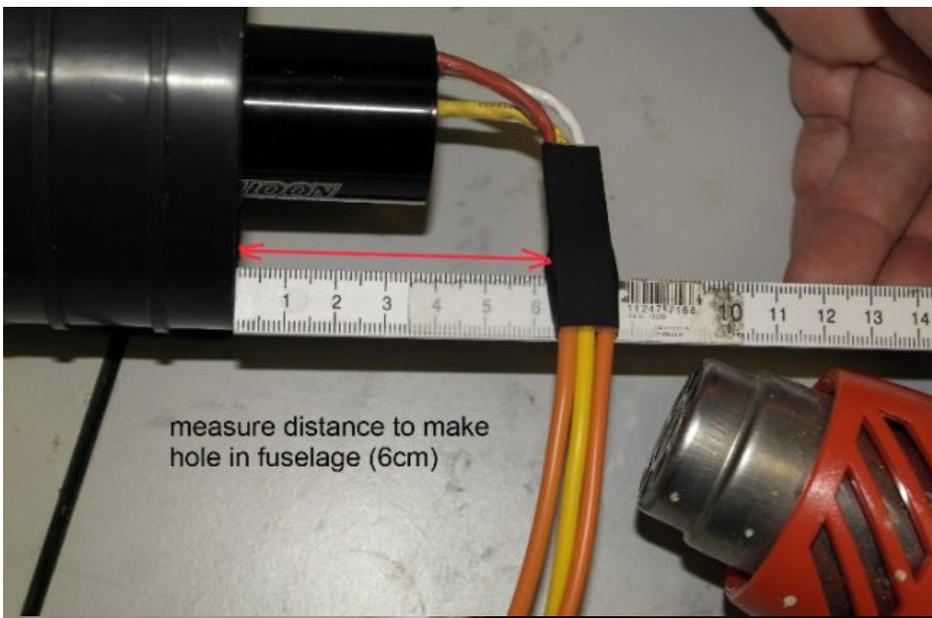
UBEC

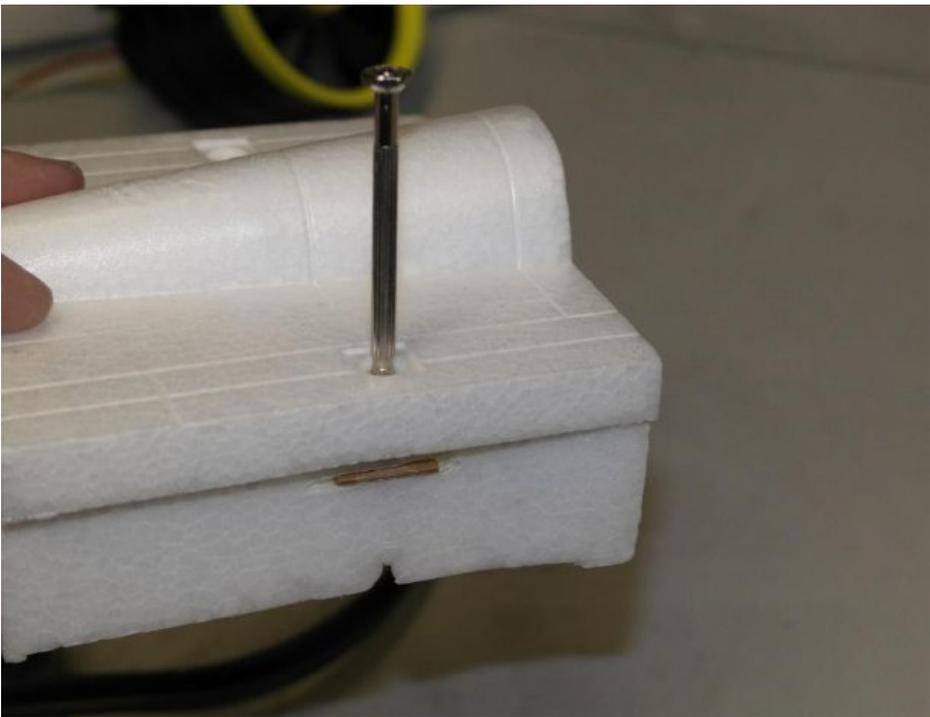
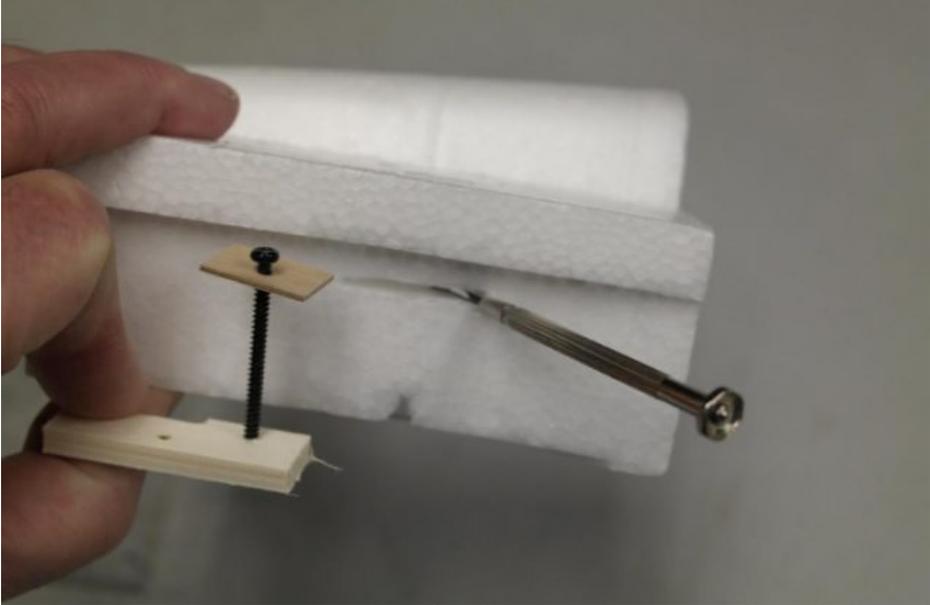
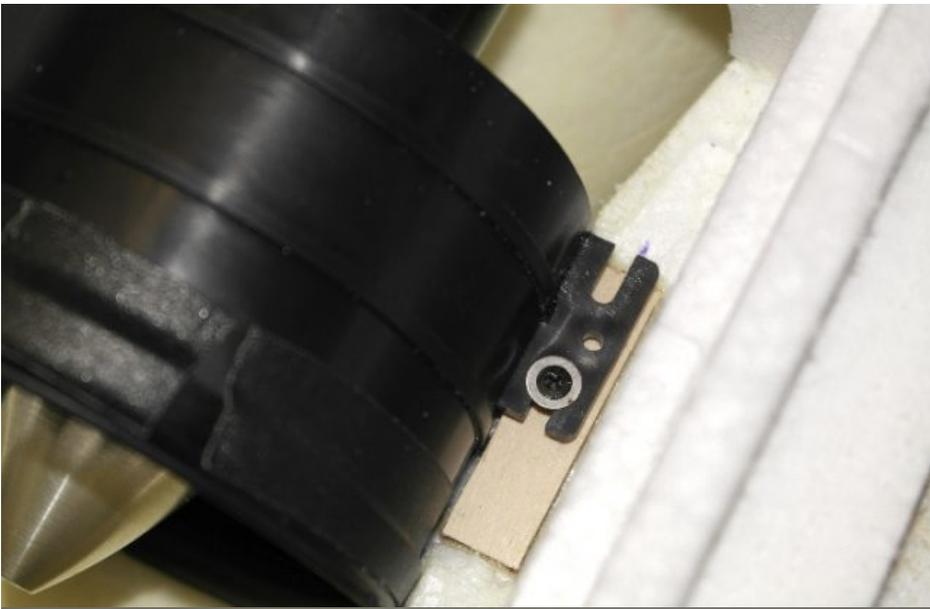
4x servo wire +  
1x ESC

ESC power wire  
(5,5mm plugs)

Drive set: Speedcontrol / Fanunit / UBEC:





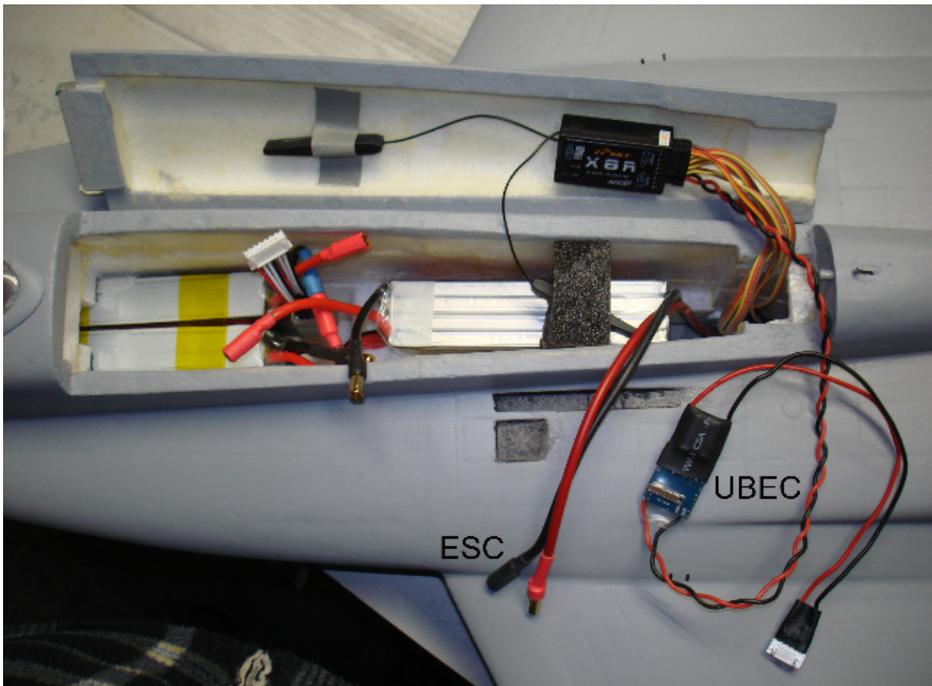




Always use aluminium foil between your model and heatgun !!

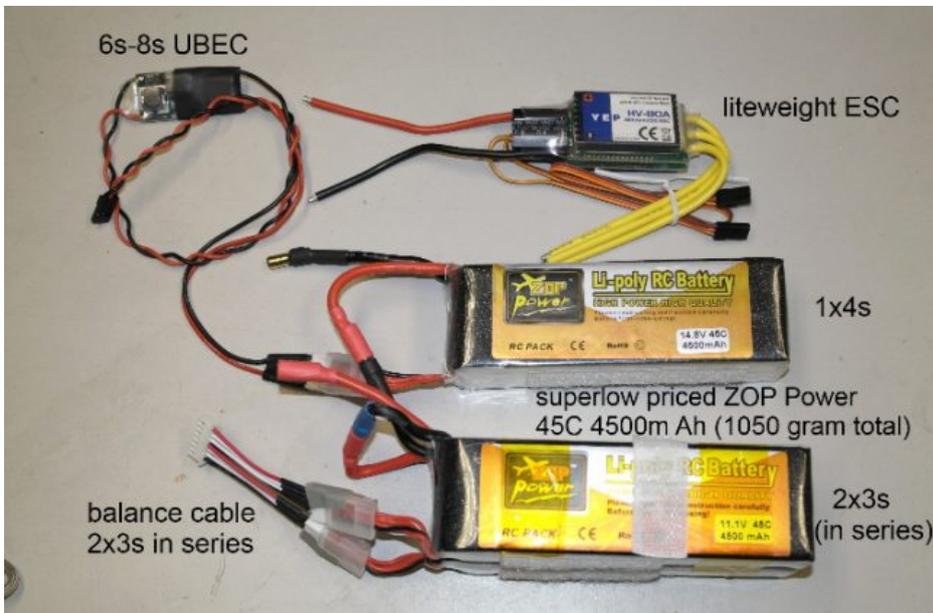


for my StormFan units on 10-11s I use the lightweight YEP-80A-HV speedcontroller (3-d printed holder comes with the FastFoam kit)



ESC

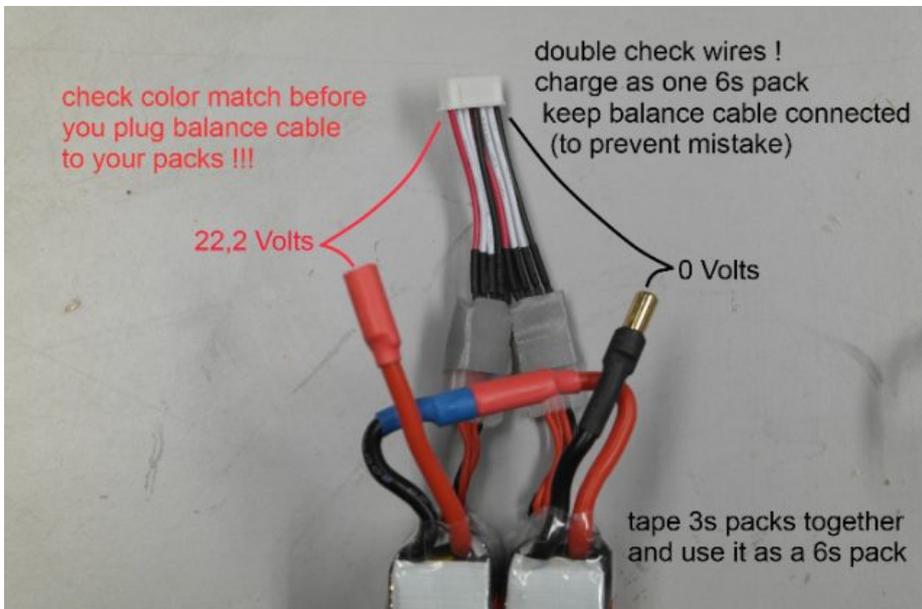
UBEC



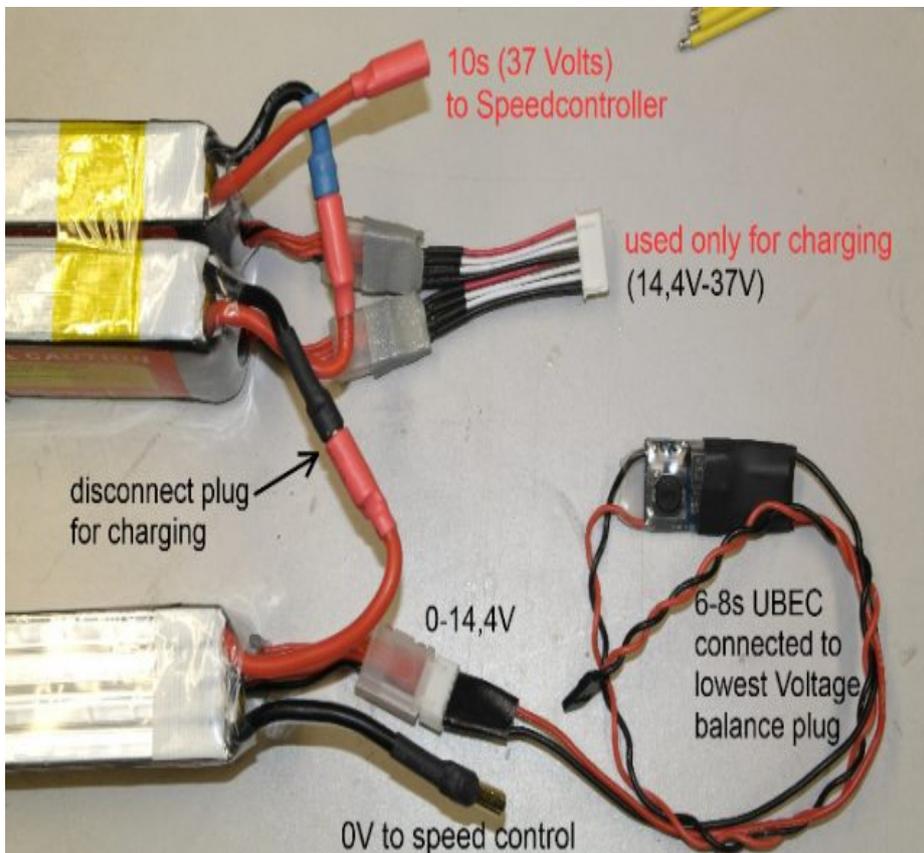
[ZOP POWER 4s 4500mAh 45c are only 33\\$ \(incl shipping!\)](#)

[ZOP POWER 3s 4500mAh 45c are only 26\\$ \(incl shipping!\)](#)

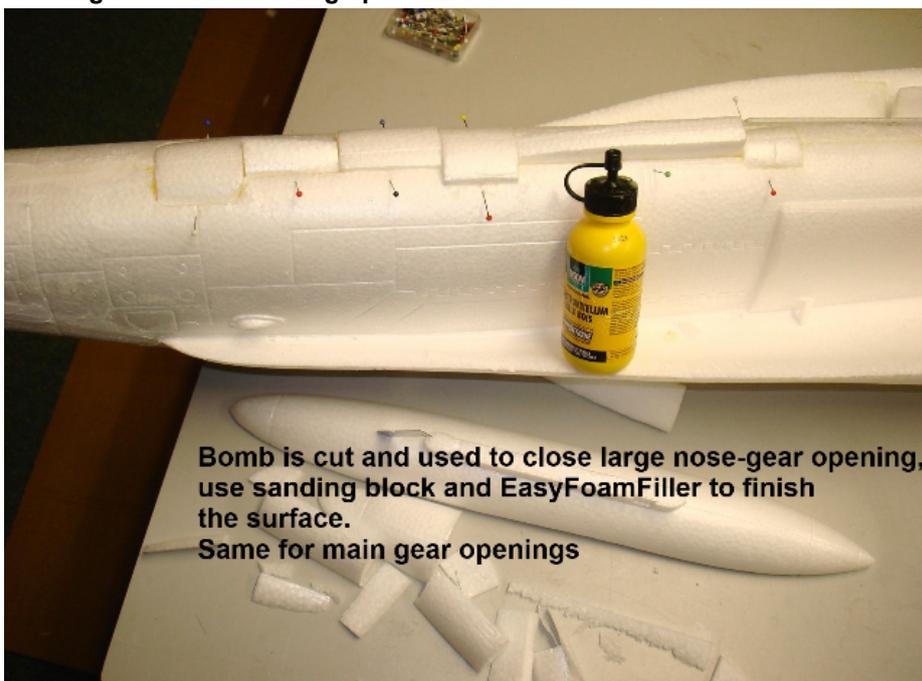
I did buy small parcel with only 3 packs for 1 plane: free shipping and no taxes !

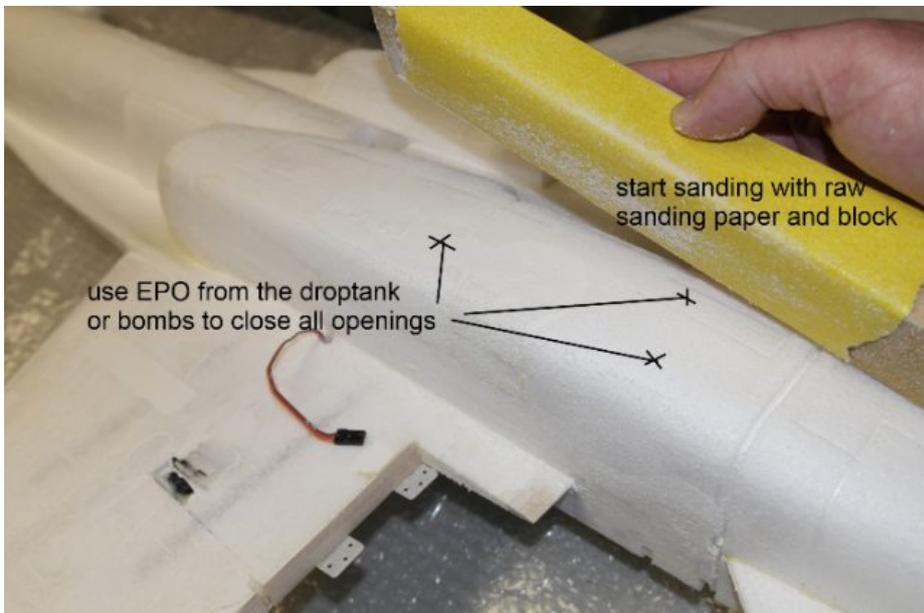


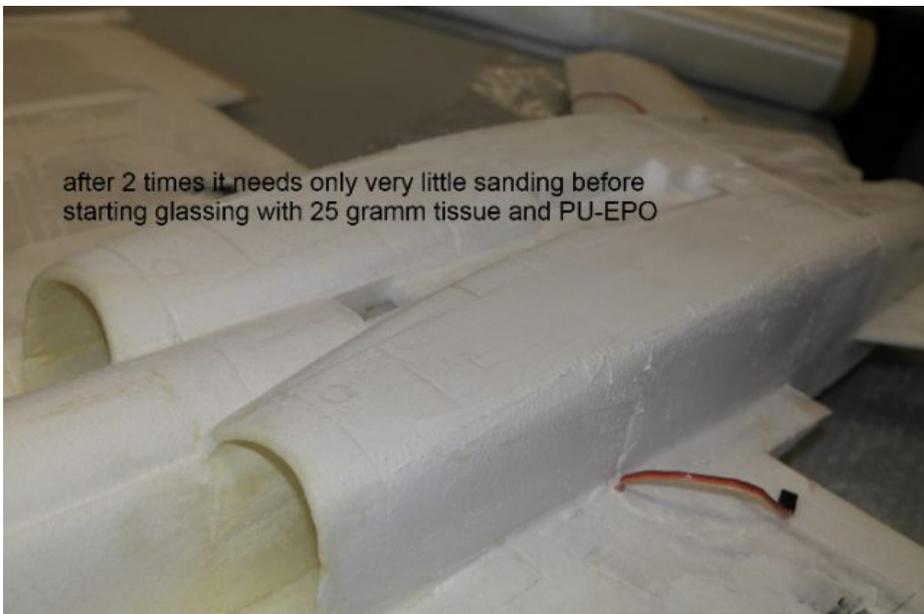
[you can buy the 2x3s balance cable\(or also called 6s splitter\) from Ebay or here\(JePe\)](#)

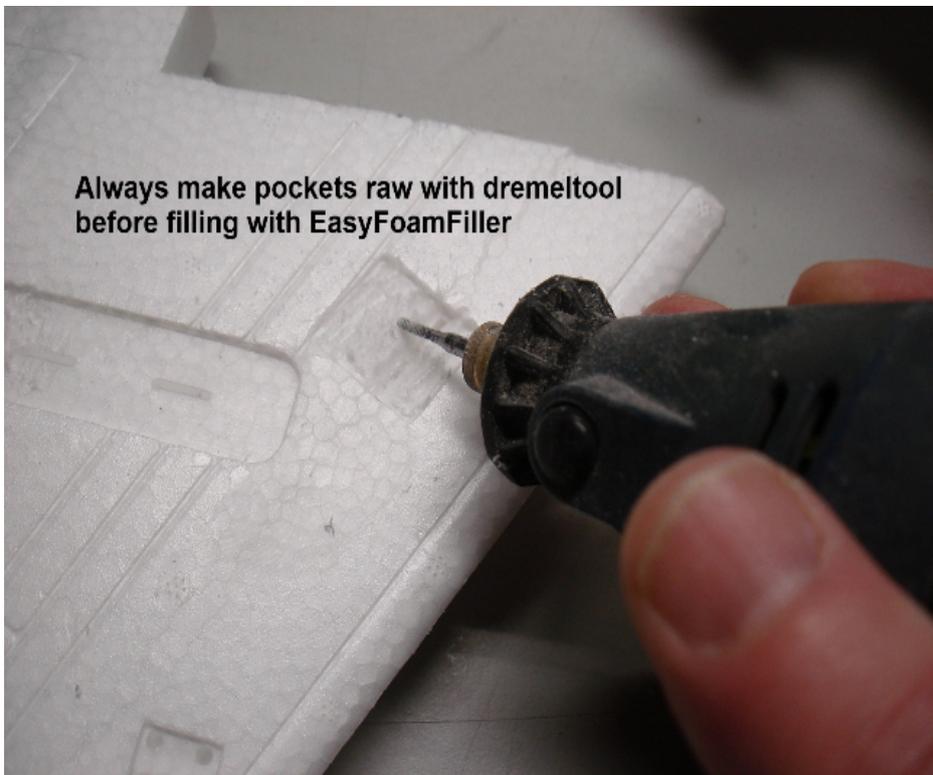


[This is just example of my setup because I like the low price and low weight of these good quality packs but you can make your setup more simple by using 2x5s packs from different label and also you can buy an HV-UBEC that is simply soldered to your ESC](#)  
**Closing holes and cleaning up the airframe:**





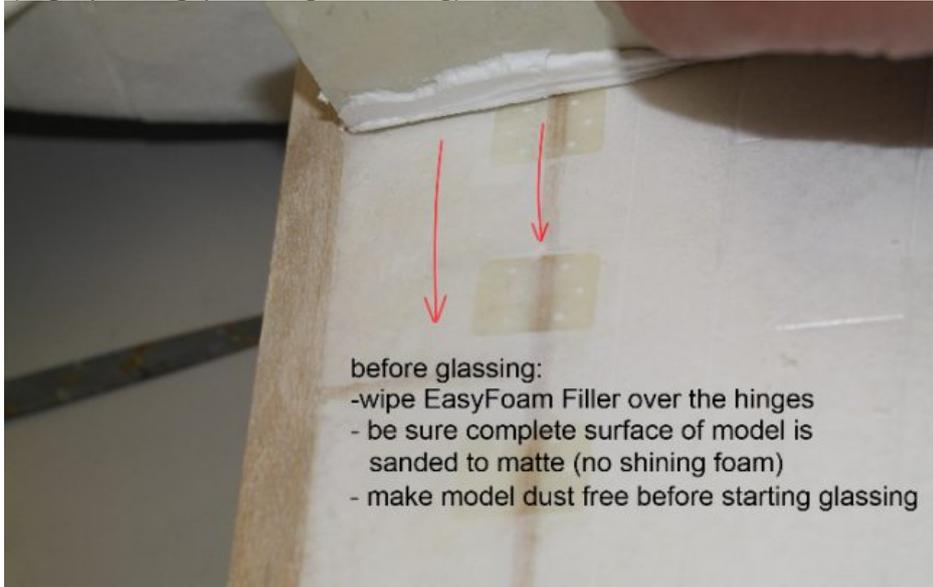




Always make pockets raw with dremeltool before filling with EasyFoamFiller

**Glassing:**

glassing is done with 1x 25 gramm glass tissue painted onto the Foam with PU-EPO . Complete model must be sanded light with 150-180 paper to matte surface (to get perfect grip for the glass coating) .



- before glassing:
- wipe EasyFoam Filler over the hinges
  - be sure complete surface of model is sanded to matte (no shining foam)
  - make model dust free before starting glassing



- cut 25 gr glass tissue for 1 wing panel
- paint only 1 coat of PU-EPO over glass



put the 25 gr glass over the aileron hinges  
(ailerons are taped from below to stay in place)  
cover only one side (bottom side next day)



let PU-EPO harden and cut-off glass tissue next day

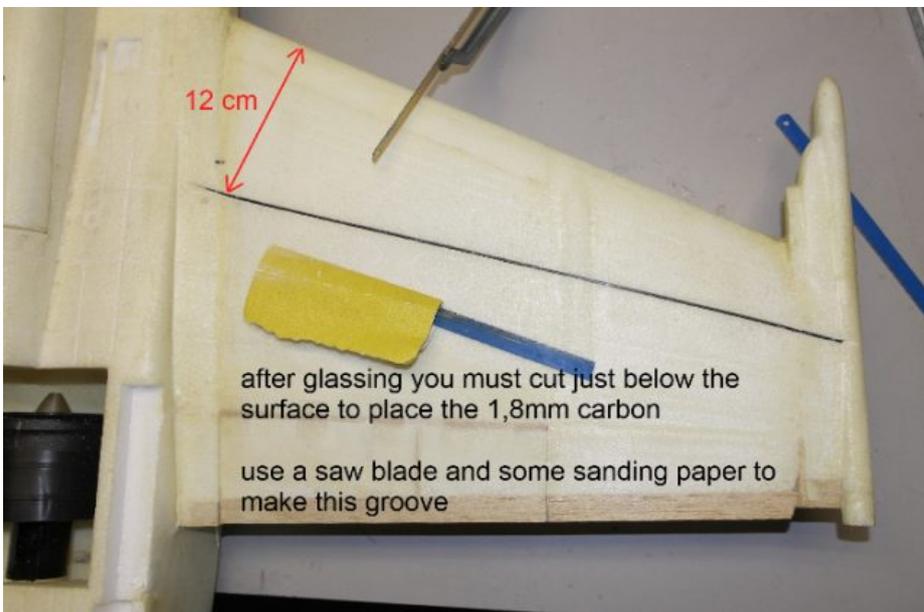


first day: topside wing+tail panels (45 minutes)  
second day: bottomside wing and tail panels  
last day: fuselage (45 minutes)

so little time to make a real Jet  
from a foamy model !!



make it easy and do not push glass tissue in every corner:  
cut openings free the next day (cover only the surface of your model)



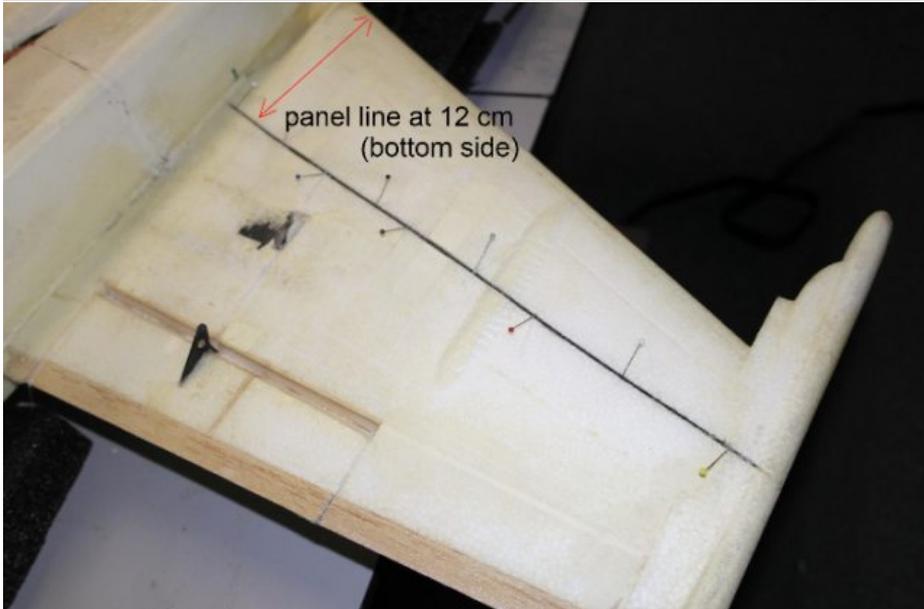
12 cm

after glassing you must cut just below the  
surface to place the 1,8mm carbon

use a saw blade and some sanding paper to  
make this groove



use metal sawblade and some sanding paper to  
make a groove for the carbon stick (cut at the panel line)





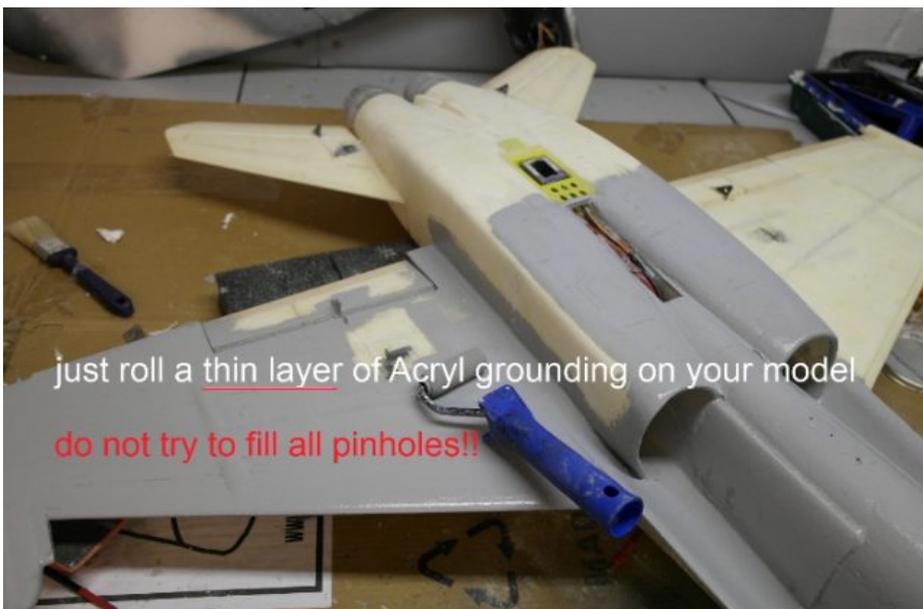
you can not damage the surface because wing is already glassed !  
(better way than putting the carbon direct into a soft unglassed wing)

finish the groove with some filler after you removed all PU-Glue

### the Paint Job:



use Acryl grounding  
on top of glassed model



just roll a thin layer of Acryl grounding on your model

do not try to fill all pinholes!!

fill all pinholes and other errors with EasyFoam Filler  
than sanding complete model



after sanding the surface will look perfect like this



now you can use a spraycan for a first final coat of paint  
I use cheap Grounding Matte Grey from the 'Action' shop

[you can buy this expensive 5 meter tape from Graupner or buy smaller 2,5 meter from JePe](#)



Optional:  
seal tape to make this Jet  
clean as the real one

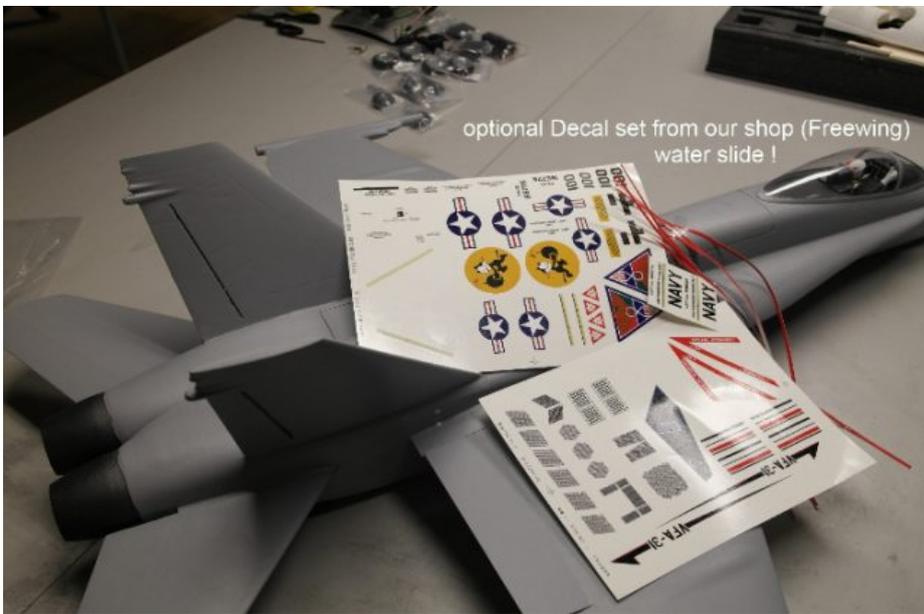


more seal tape on topside  
of my elevators



some last corrections  
with normal woodfiller  
(also from cheap Action shop)

tailfins are now also glued  
into position and model needs  
one more quick sanding

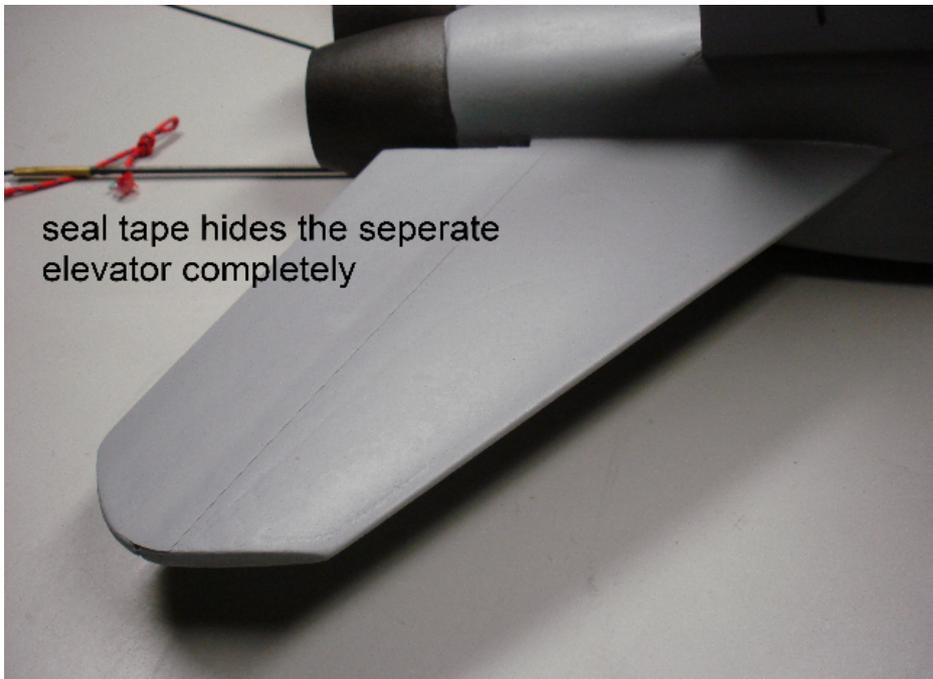


optional Decal set from our shop (Freewing)  
water slide !

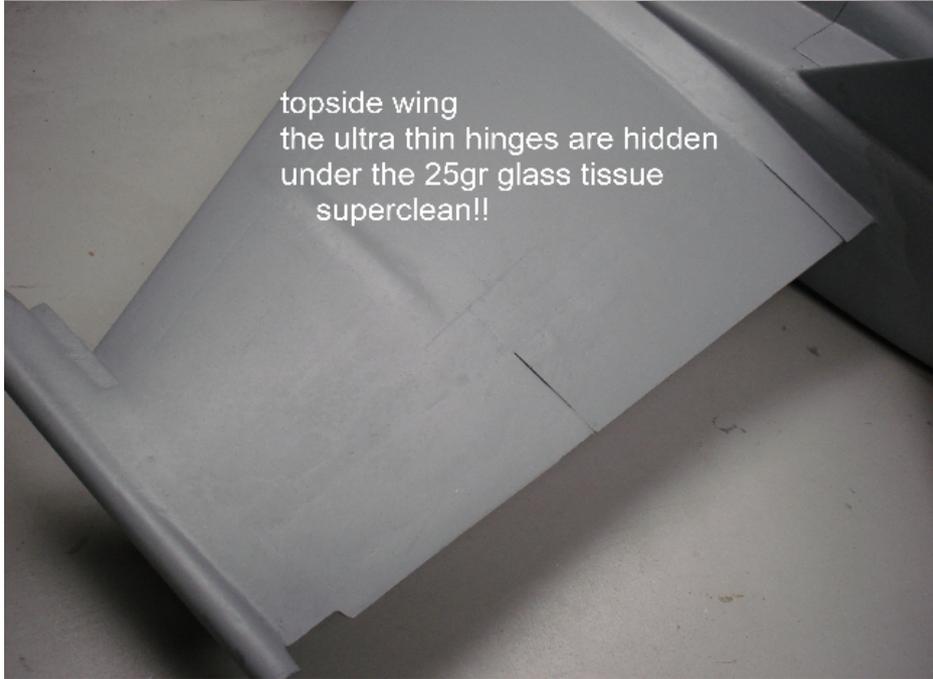
very good size Decalset from Freewing .(top) . we have some in our shop  
(optional)



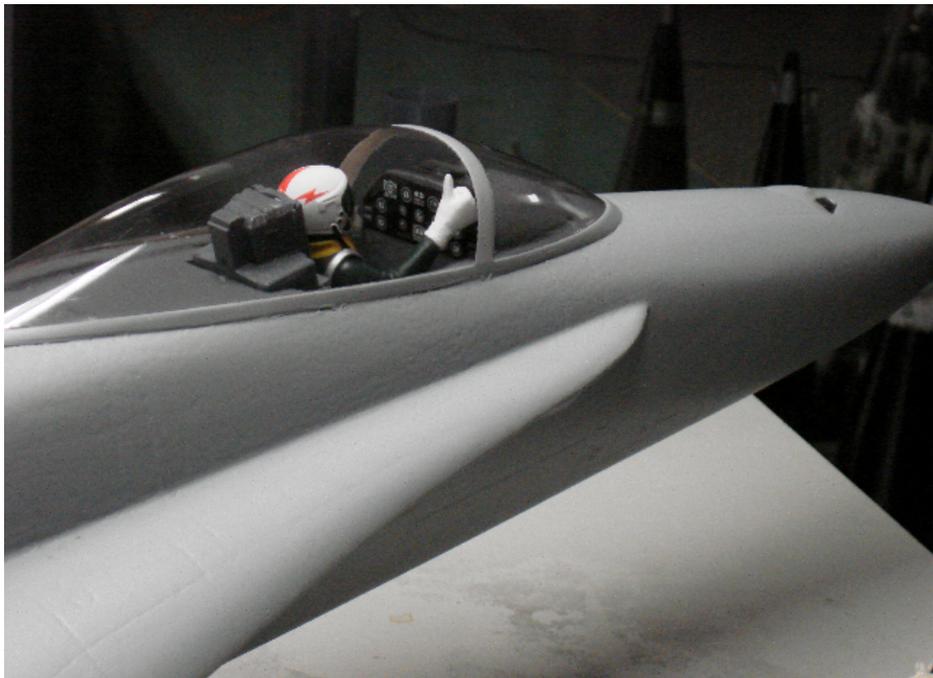
sealtape was taped just before the  
2nd spray of 'Action' grey.



seal tape hides the seperate elevator completely

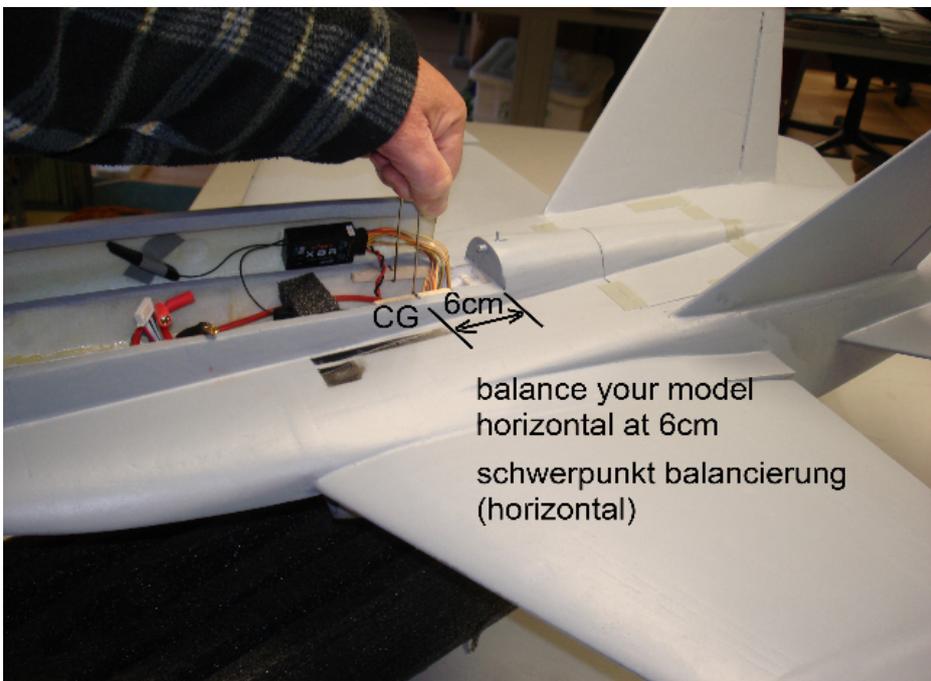
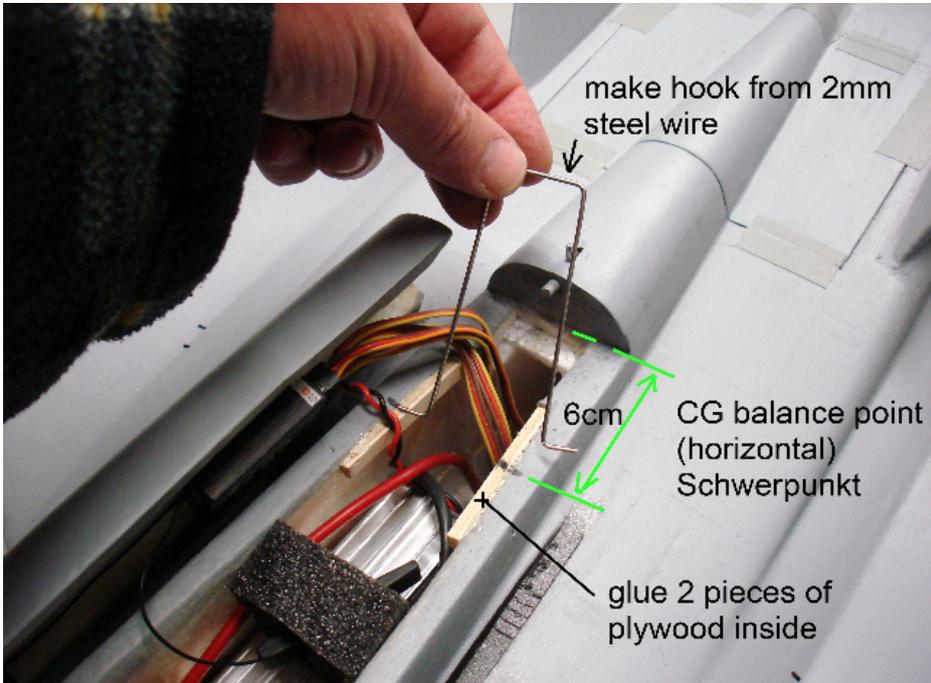


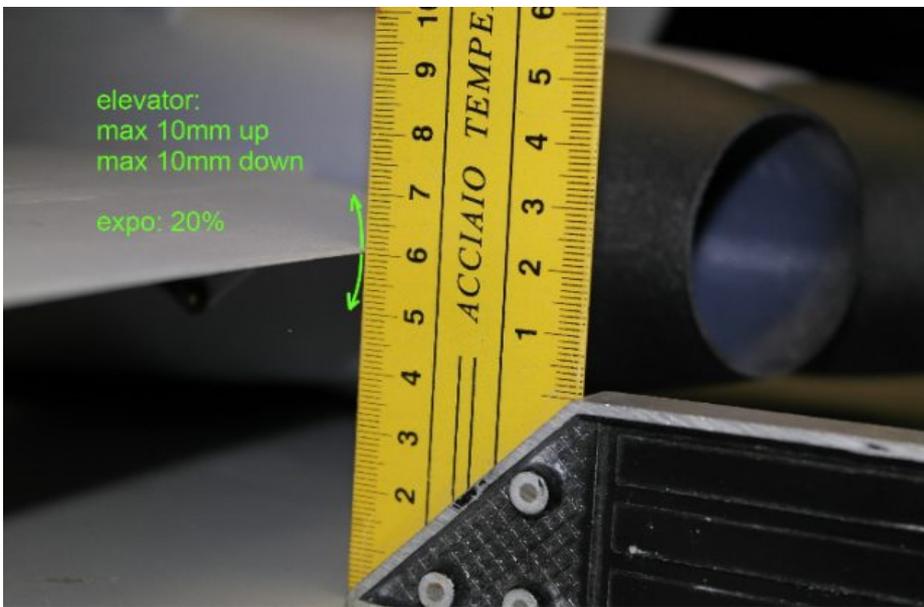
topside wing  
the ultra thin hinges are hidden  
under the 25gr glass tissue  
superclean!!



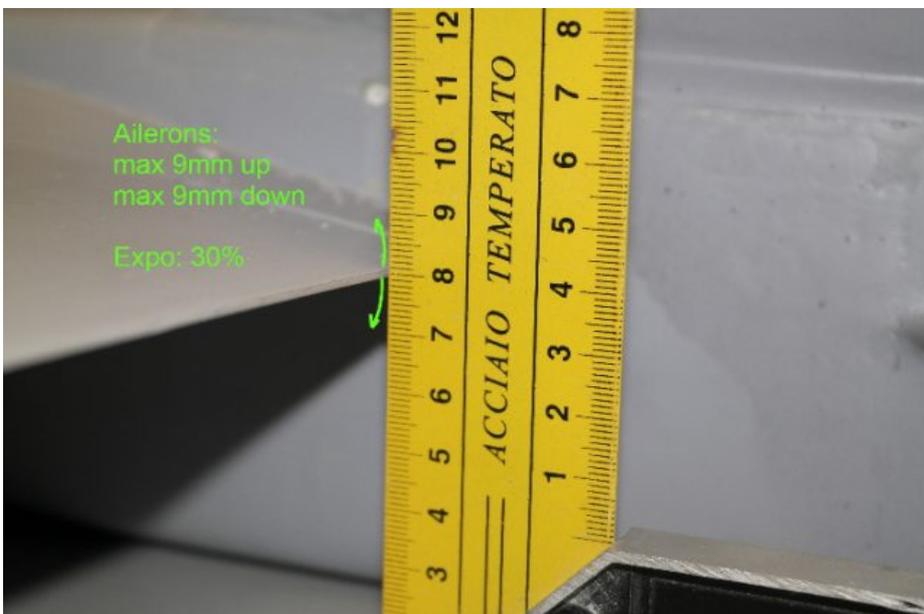


**CG and rudder movements:**



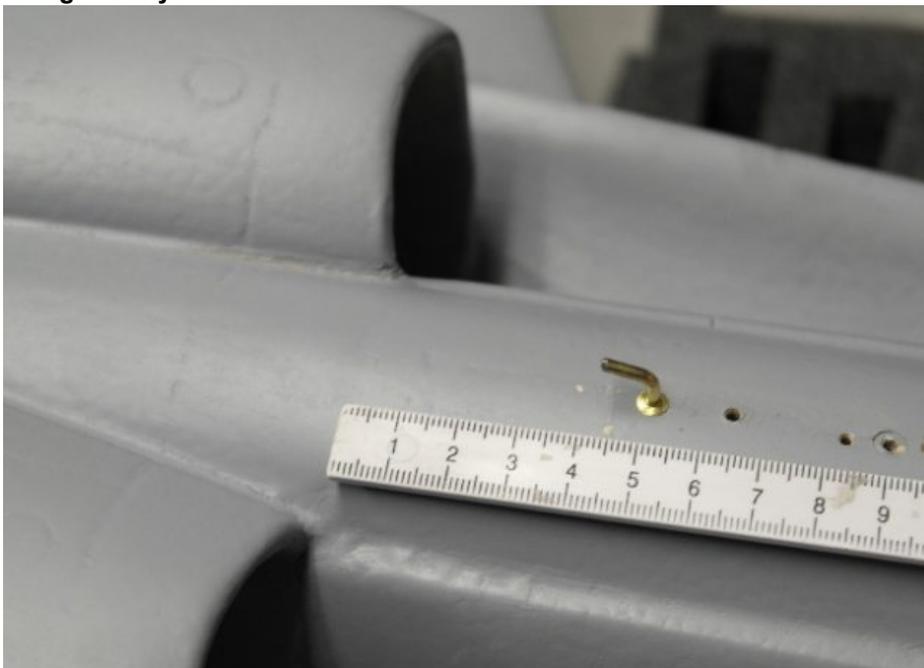


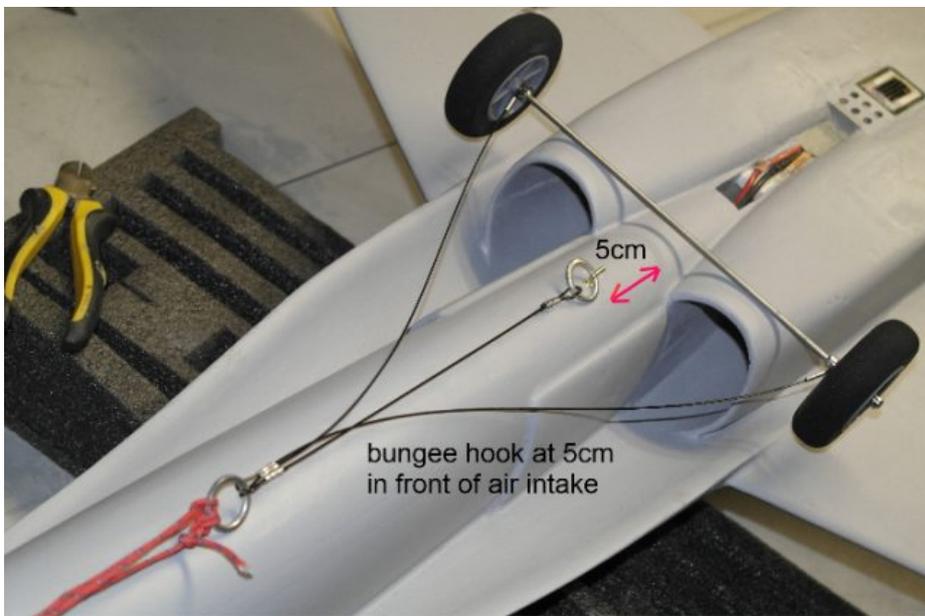
20% Expo funktion auf Höhenruder . max 10mm Ruderweg (gemessen an endleiste)



30% Expo funktion fur Querruder 9mm bis max 10mm ruderweg (gemessen an endleiste)

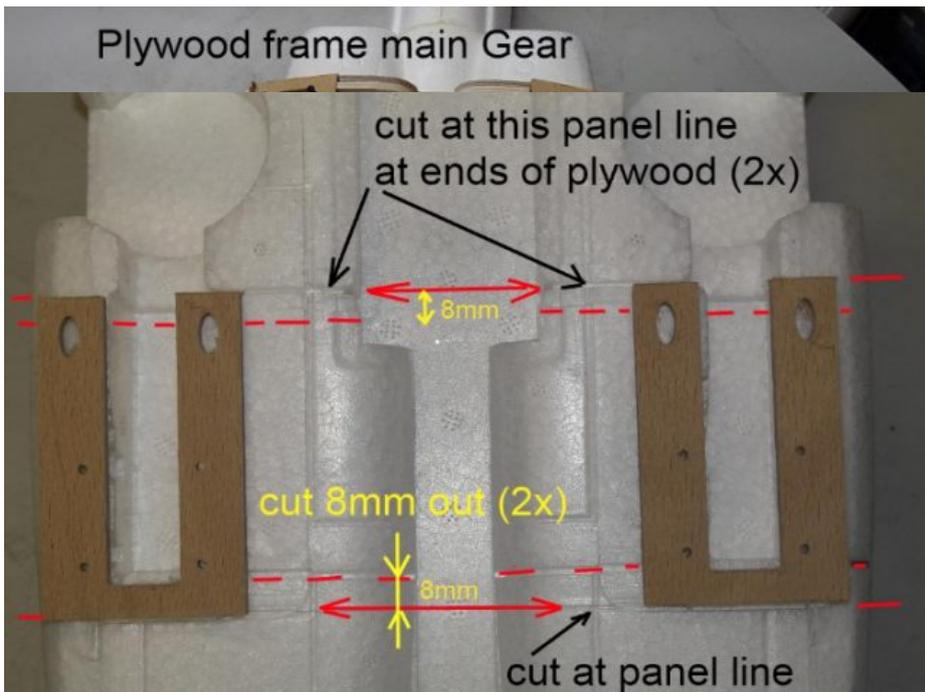
**Bungee Dolly:**

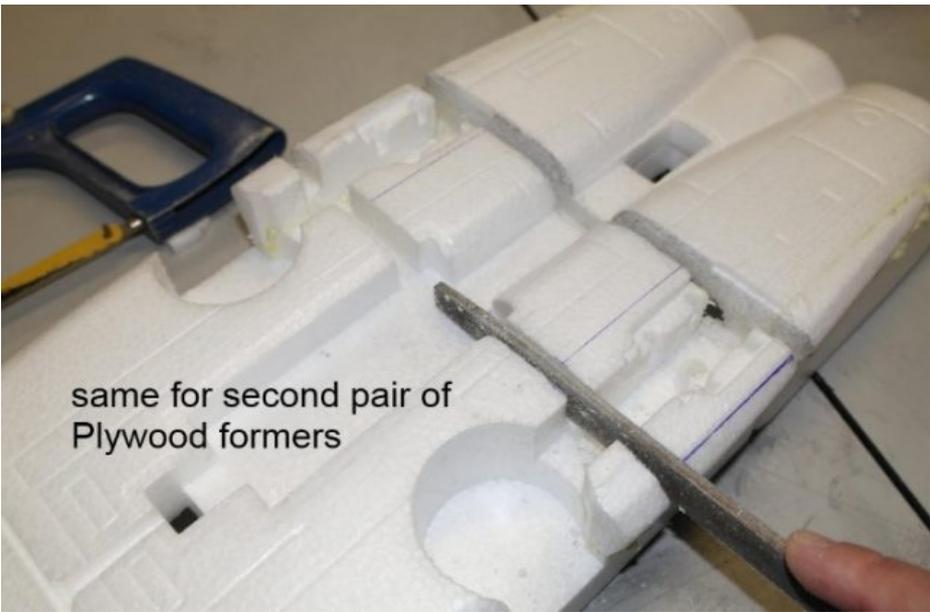
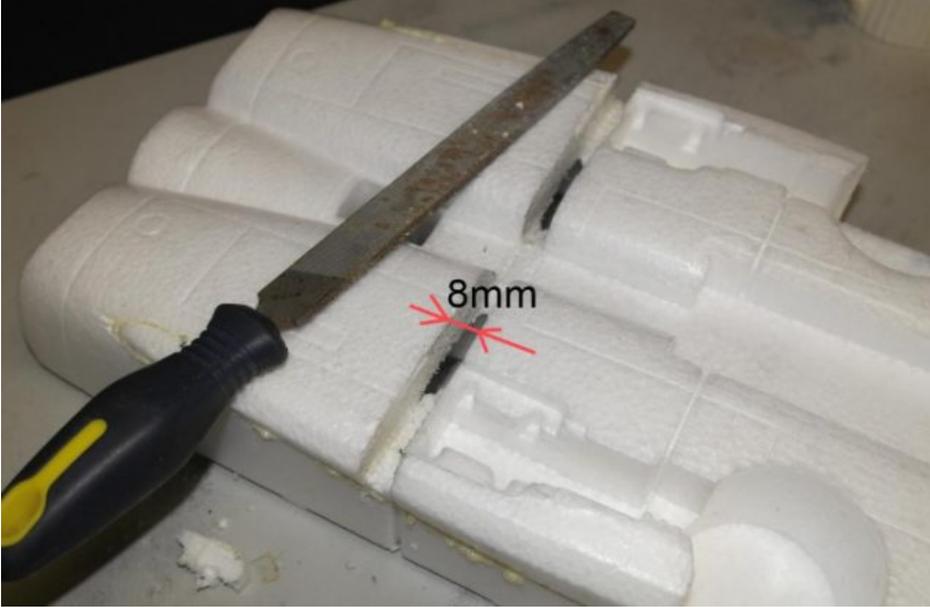
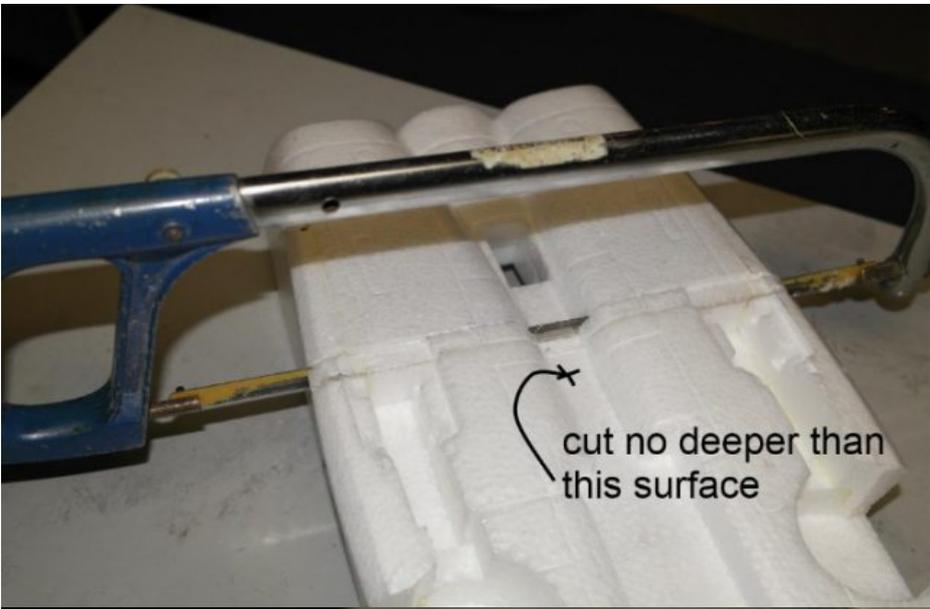


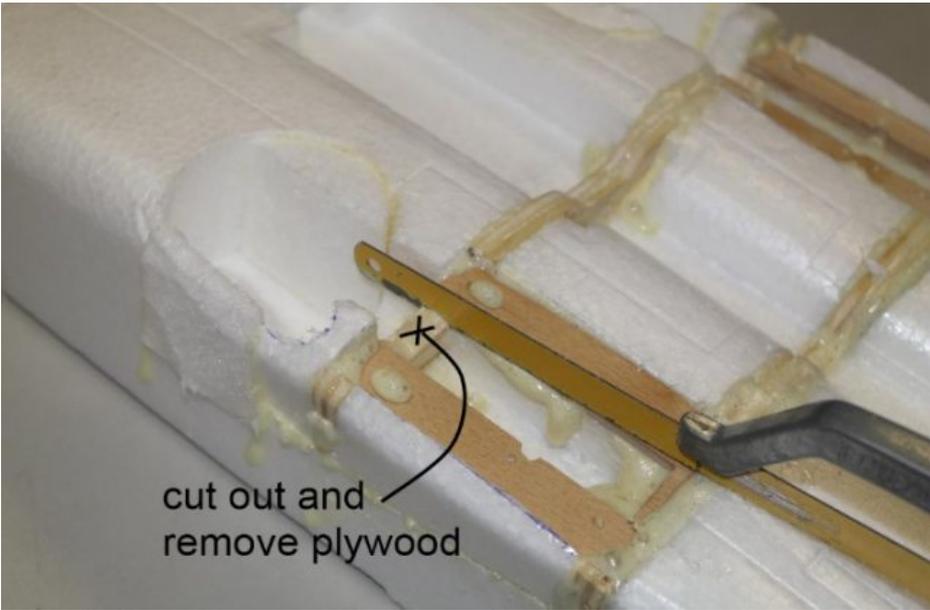
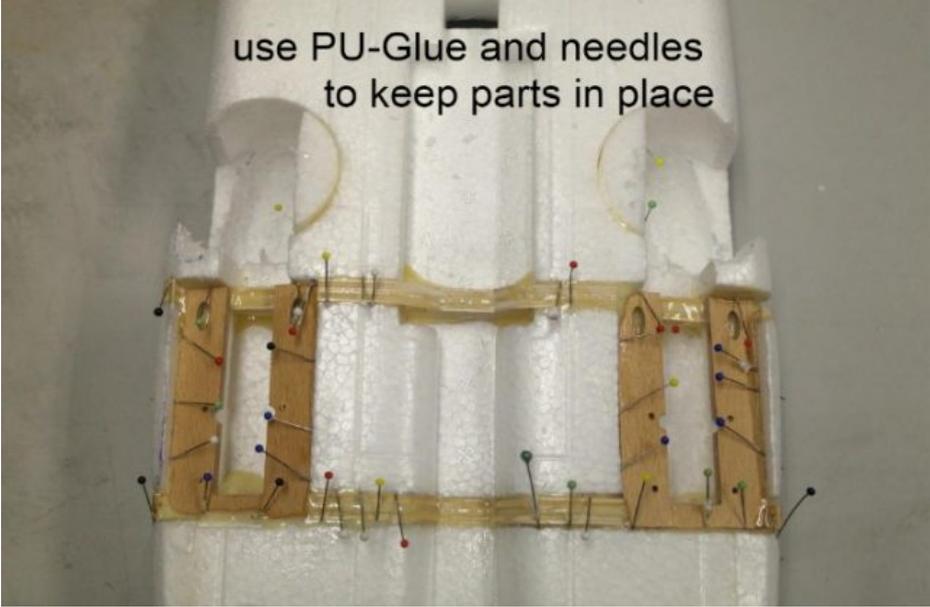
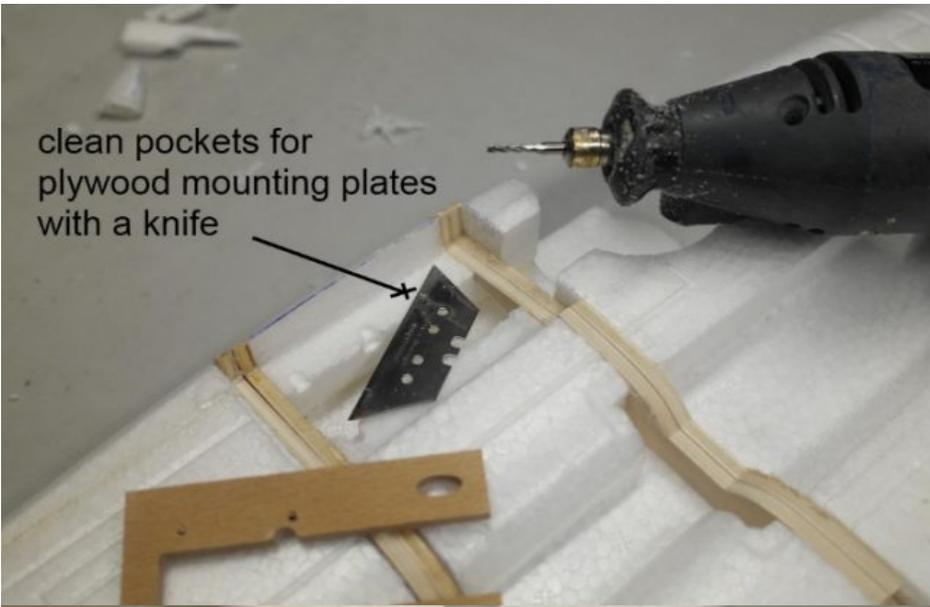


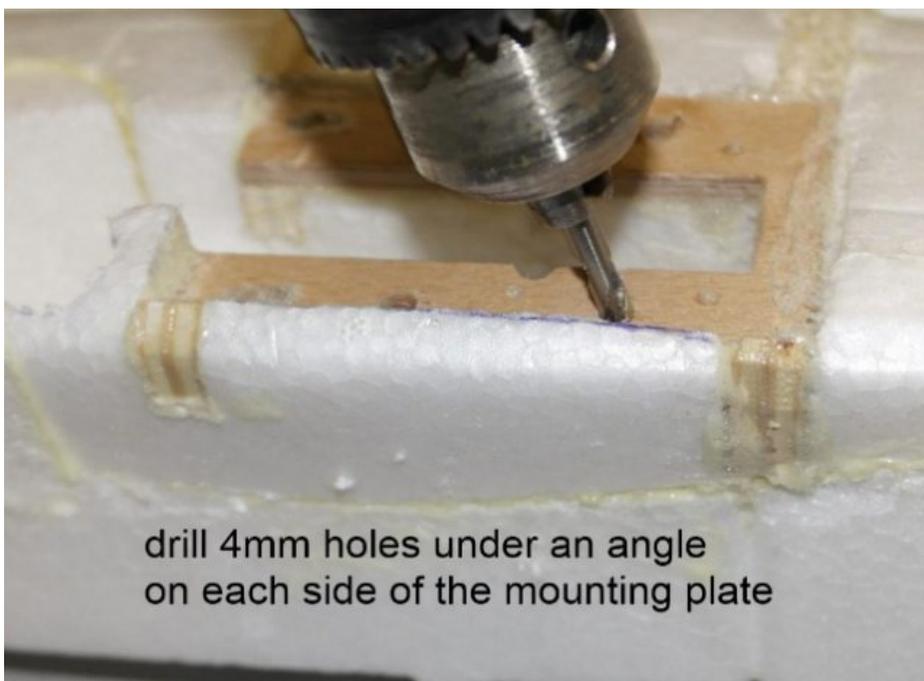
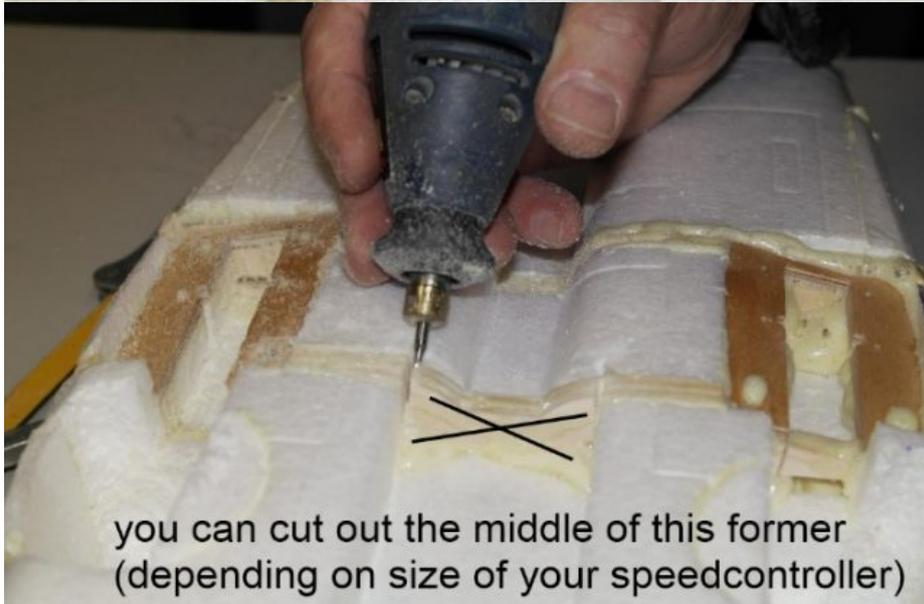
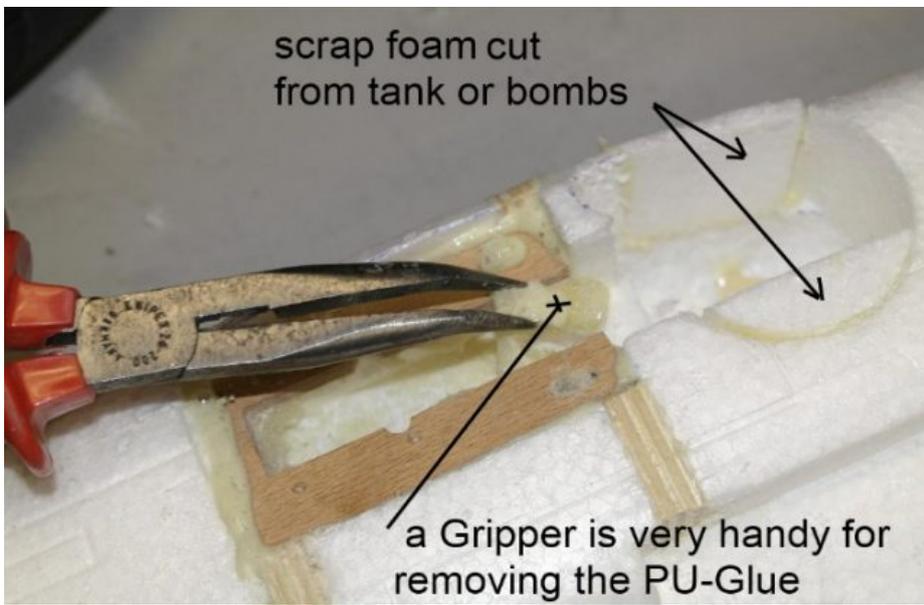
**Retract version:**

[you can buy cnc cut plywood construction from our shop](#), also the [Freewing landing gear](#)

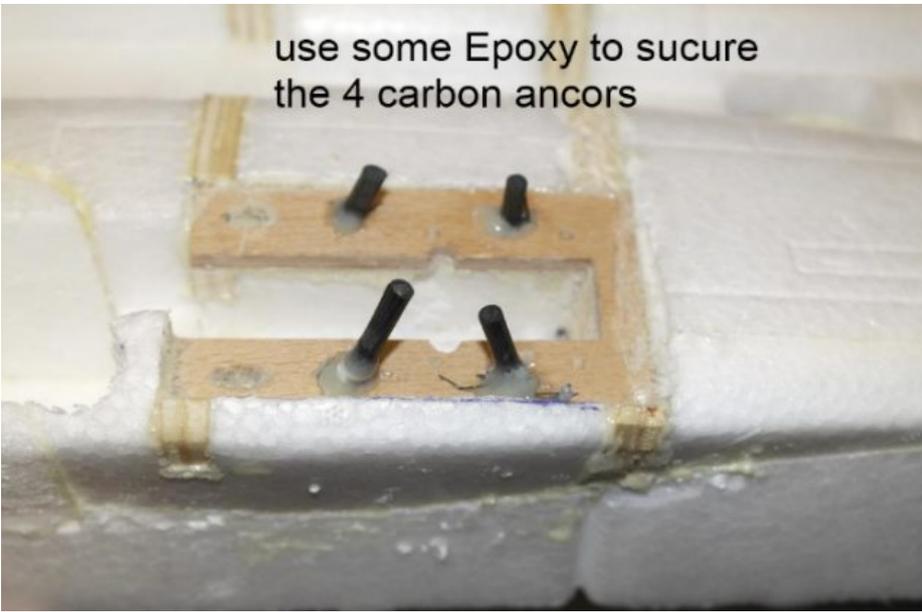




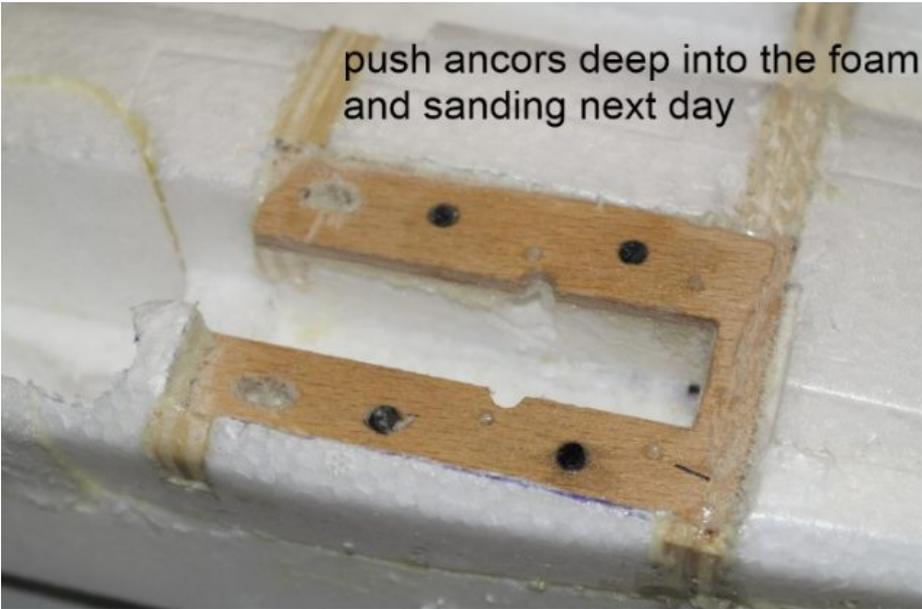




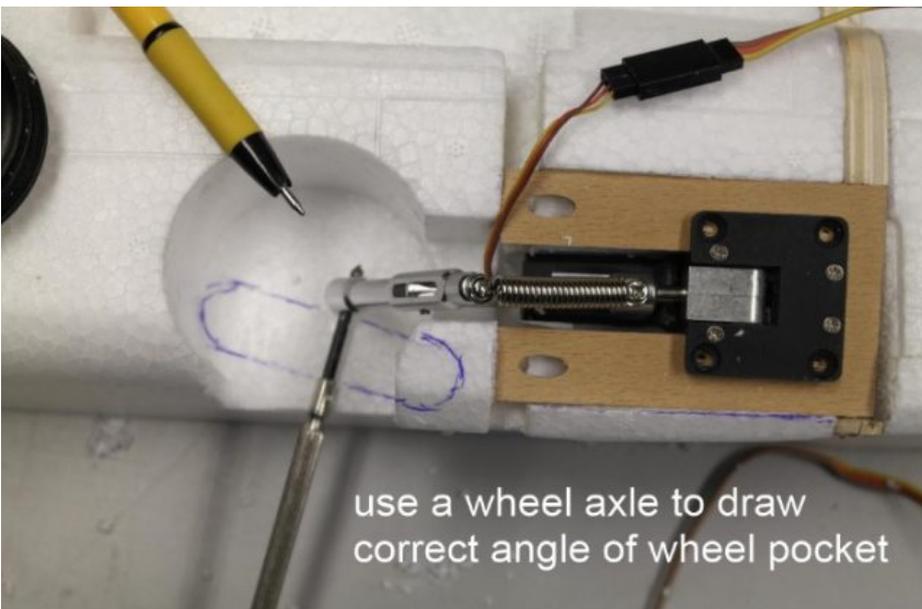
use some Epoxy to sucure  
the 4 carbon ancors

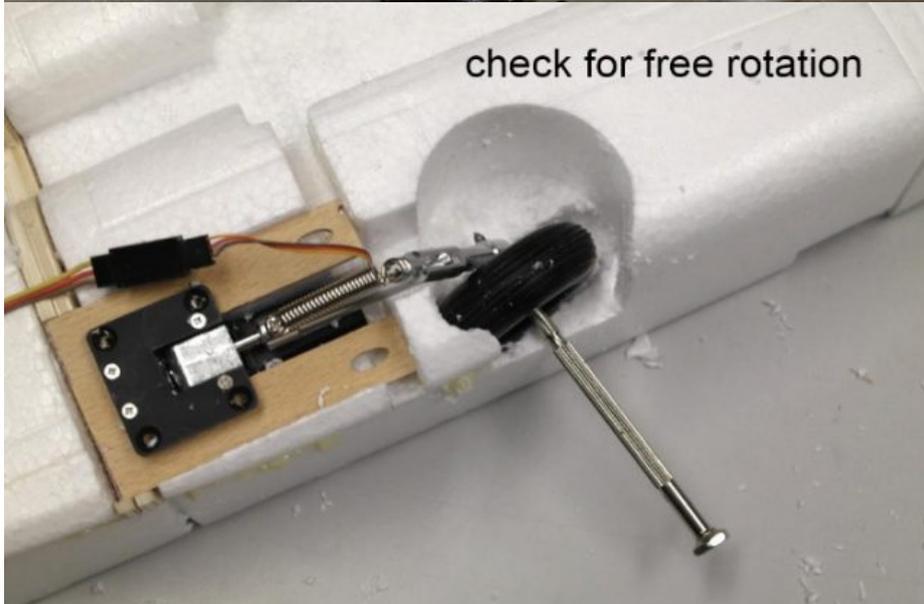
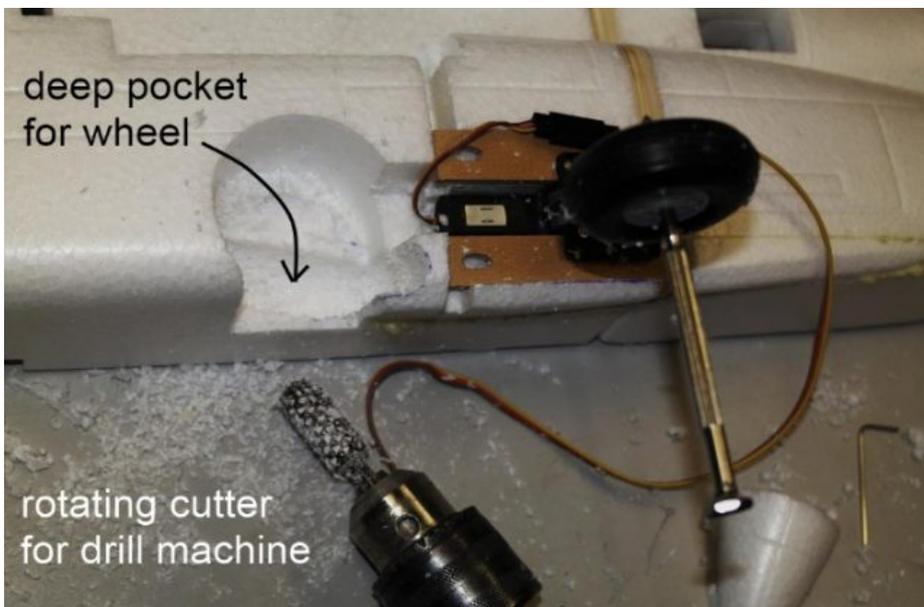


push ancors deep into the foam  
and sanding next day



use a wheel axle to draw  
correct angle of wheel pocket





**installing the nosegear:**



