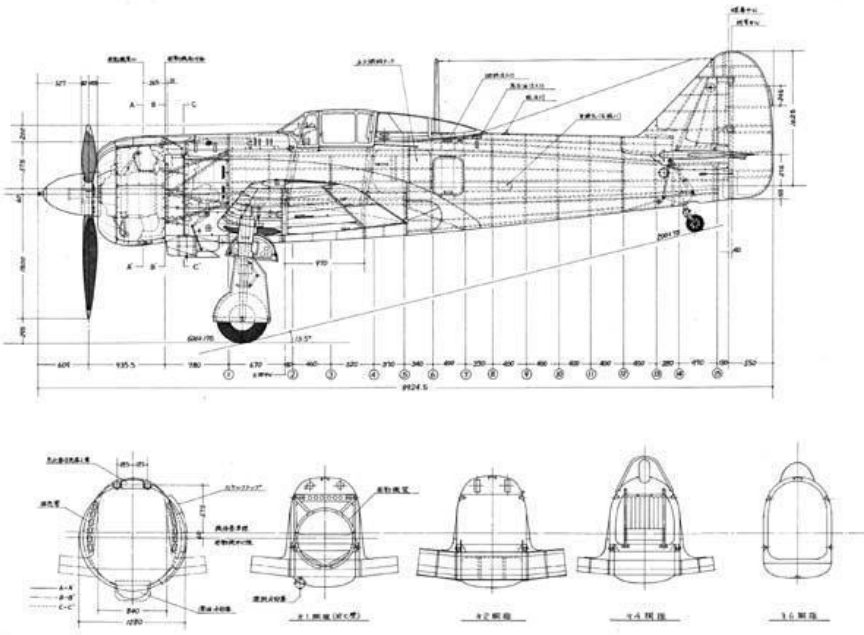
KAWASAKI KI-100 IB GOSHIKISEN



Revision 0

Kawasaki KI-100 IB Goshikisen
ZAP WARBIRDS RC Aircraft
Assembly instructions

Introduction

After our successful Ki-61 kit, it was just logic to develop the late Japanese version of this model with radial engine. We kept same scale and only concentrate on the fuselage changes, to produce another great Japanese warbird. The Ki-100 Goshikisen.

ZAP WARBIRDS RC Aircraft, is taking one step forward to produce attractive, well known, easy to assembly military model airplanes in the range of 1/4 scale. Our designs consist in laser cut parts, fiberglass and plastic parts. They are also designed around commercial accessories and parts easy to get. Take your time reviewing our set of plans and this manual. Our plans are good for assemblyor for scratch build, allowing to cut your own kit. You do not need a set of plans to build our models from our kit, simply follow the sequence of construction on a flat work bench,

List of additional wood to finish this project:

50 sheets of – 1/8” x 36” x 4”balsa – fuse and wing sheeting
7 sheets of – 3/32” x 36” x 4” balsa – stab and fin sheeting
2 sheets of – 1/2" x 36” x 4” balsa – wing LE
1 sheet of -3/8” x 36” x 3” balsa - stab and fin LE
1 sheet of – 1/64” x 12” x 24” plywood or use thin G10 sheet (wing fillets)
25 sticks of – 1/4" x 1/4" x 36” balsa – fuse and wing stringers
3 sticks of - 3/16” x 3/16” x36” balsa – fin and stab stringers
8 sticks of – 1/8” x 1/4" x 36” balsa – wing stringers
4 sticks of – 1/2" x 1/4” x 36” balsa – wing stringers
4 sticks of – 1/2" x 1/4" x 36” (hard balsa or hardwood) – wing center section main spars
4 sticks of – 1/2" x 1/2" x 7.1” hard maple – **Landing gear rails**

Please **read this entire manual before starting any steps**, so you will be familiar to the way this sequence of building the model is. Please follow this assembly sequence in order. We encourage you to assemble first the tail group, then the wing and finally the fuselage so the wing saddle and wing bolt plate will be easier to install.

The following building sequence show actual 3D parts from the software program used on the kit design. Each graphic has notes and/or part labels for easy building process. You need to have some experience building RC models following step by step.

Some notes from the design:

- Wing was designed for 3 pieces wing for easy transportation, but with some experience you can convert it to 2 pieces wing or if you prefer into 1 piece wing. Use 1” and 5/8” for wing tubes, and a 1/2” hardwood joining spar (cut by the builder)
- The stabilizer is designed to be built with separated panels for easy assembly using two 3/8” stab tubes. The stabilizer can be used as removable units using the stab tubes, with attachment points through the sides of the fuselage under the stab itself. Use 2 6-32 bolts from each side of the fuse, pick one bolt for each side and build a guide on the sides of the fuselage for the bolt. Place a t-nut or an insert-nut on the hardwood block inside each stab panel. Or you can simple glue permanently the stab after finishing the built-up process of the empennage.
- The fin is a unit designed to be built separate and be glued to the fuselage when the fuselage has the sheeting completed on the tail area.
- Ailerons and flaps can be built over a flat surface. Aileron is for fabric and paint finish as per full size, same as the elevators, and rudder. Flap stiffness must be a priority and can be improved with a thin layer of G-10 or carbon fiber veneer under the plywood flap surface if needed.
- It is important to add shear web balsa wood with vertical grain along main spar of the wing panels. Also, add a paper tube through wing ribs for servo cable guidance. Scale light system can be added, plan running cables through ribs for this system.
- Landing gear system is designed around Sierra Giant landing gear units with some hole to pass air lines on ribs, check for air lines exist location before pacing wing skin.
- The Wing Lock System must be installed with both center and outer wing panels together (with wing tubes) during frame up stages just before bottom skin step.
- The center 1/4” balsa part (W42) in the back of the center of the wing needs to have some bevel to allow the removal of the wing center panel, also, when installing the center wing panel to the fuselage a gap from the back of the wing to the fuselage at former F7 needs to be fill with scrap balsa for a clean surface match.
- For hinges, use Robart point hinge type 3/16” size for elevator, rudder, and aileron. Use 1/8” size for flap or use a piano hinge. Use piano hinge for inner landing gear door.
- Scale mechanism of inner landing gear door is mechanically. Check scale documentation for proper mechanism. Alternative mechanism can be done with air systems.
- All horn controls for flying surfaces should be customized as per builder preference using G10 or carbon fiber sheets crating balsa hard point to epoxy securely.
- Canopy movable system can be adapted using railing system. (for more experience builders)
- Cowl flaps can be installed using the cowl ring (not glue to cowl) as support for the system and adding a second (by builder) cowl ring attached to the cowl for removable cowl system.
- Cockpit area is set to allow full cockpit details. Parts for cockpit panel are included (no instruments included). Refer to scale documentation for more details.
- Tail wheel unit is the fix type (non-retractable) as per some scale variants. Make a fiberglass rear hatch for tail wheel service.
- The Ki-100 can use many different engines. Refer to cowl depth and the size of engine spacers needed for your engine. Plane is designed with 0-0 right-down engine thrust so; some rudder is needed for takeoff as full size plane.
- Landing light can be installed at left side wing panel as per scale documentations.
- Install the fiberglass oil scoop (under the fuselage) to be removable with screws adding hard points for nuts/bolts.

- Cut open cowl area underneath at the oil scoop location.

EQUIPMENT INSTALLATION

The model is designed with specific locations for the equipment installation. The engine ignition unit, battery unit and radio battery can be installed behind F2 in the lower space.
Air tank for landing gear system has to be installed through formers F8 and F10 and glued with hot silicone.
You can create your own radio switch/air valve/fuel valve compartment with a hinged hatch or use the scale location of the big rear hatch.
Rudder servo installation is using pull-pull system. Our plans show “Roto Flow” fuel tank system, we recommend minimum the 32oz. size tank.

ENGINE INSTALLATION

Total final model weight should be between 38 and 45 lbs. (engine included). This range gives a wide rage option for different engines between 85 and 130cc or even 150 to 180cc radial engines.
The firewall is set up for no down/right thrust, by using the reference marks on the firewall, you can install any of the recommended size engines with engine extensions, standoff, prop extension or risen firewall. Scale spinner is available through Phil Clark (Fighter Aces in UK), it is a carbon fiber/aluminum back plate, or through Tag Model Spinner in Australia (long wait time), aluminum machined spinner (heavier). If you are not into too much scale detail you can use the ZapWarbids Ki-43 spinner which similar in size and close to the scale shape.

FINISH, SETUP AND FLYING

Use fiberglass cloth and polyester or epoxy resin on fuselage and wing leaving the flying surfaces to be covered with Solartex or similar. We highly recommend the use of WarbirdColors paint.

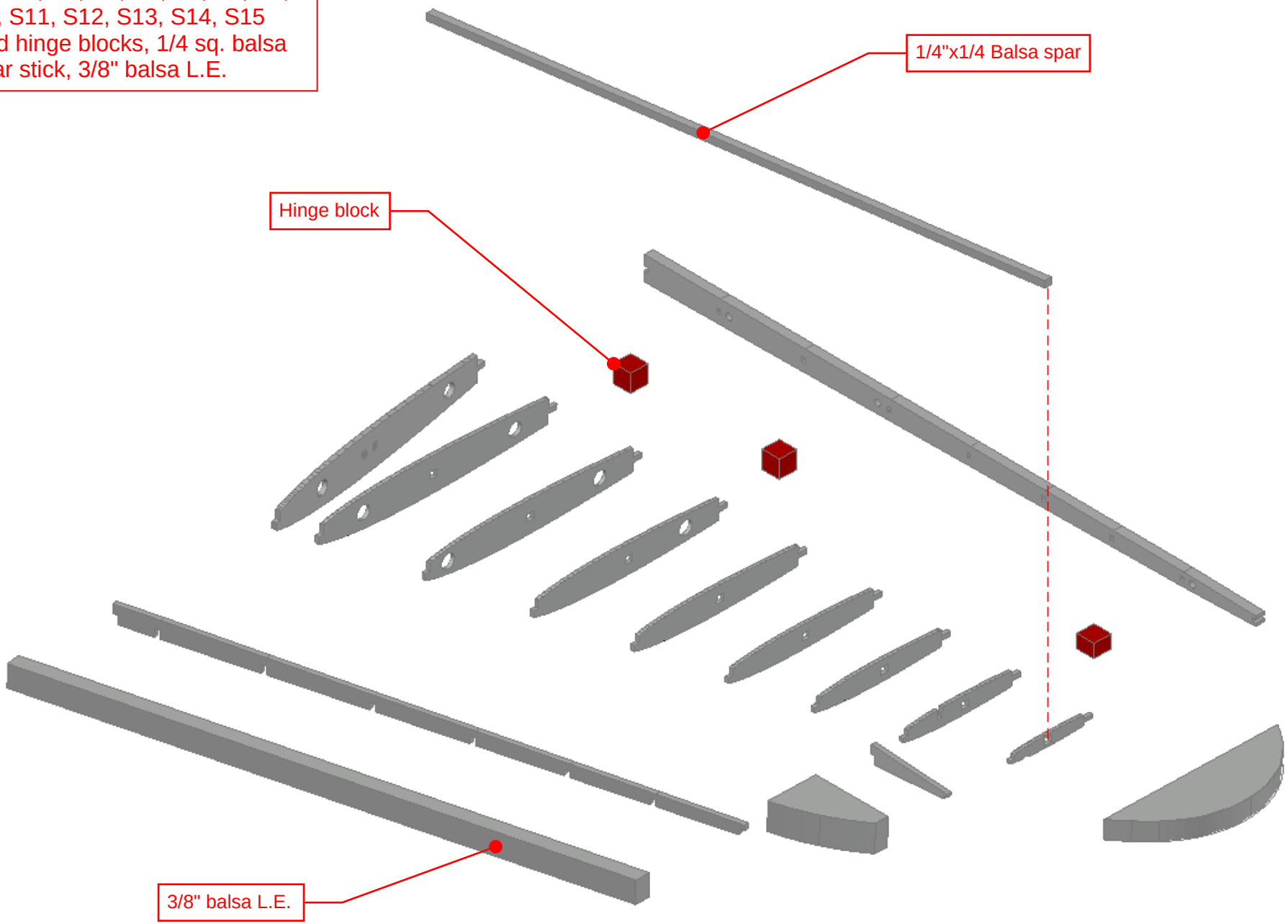
Once you have your model finish, it is time to locate the CG. Ideal CG location is 7.15” behind the LE at the center of the wing. But a good range is between 6.9” – 7.4” from the LE

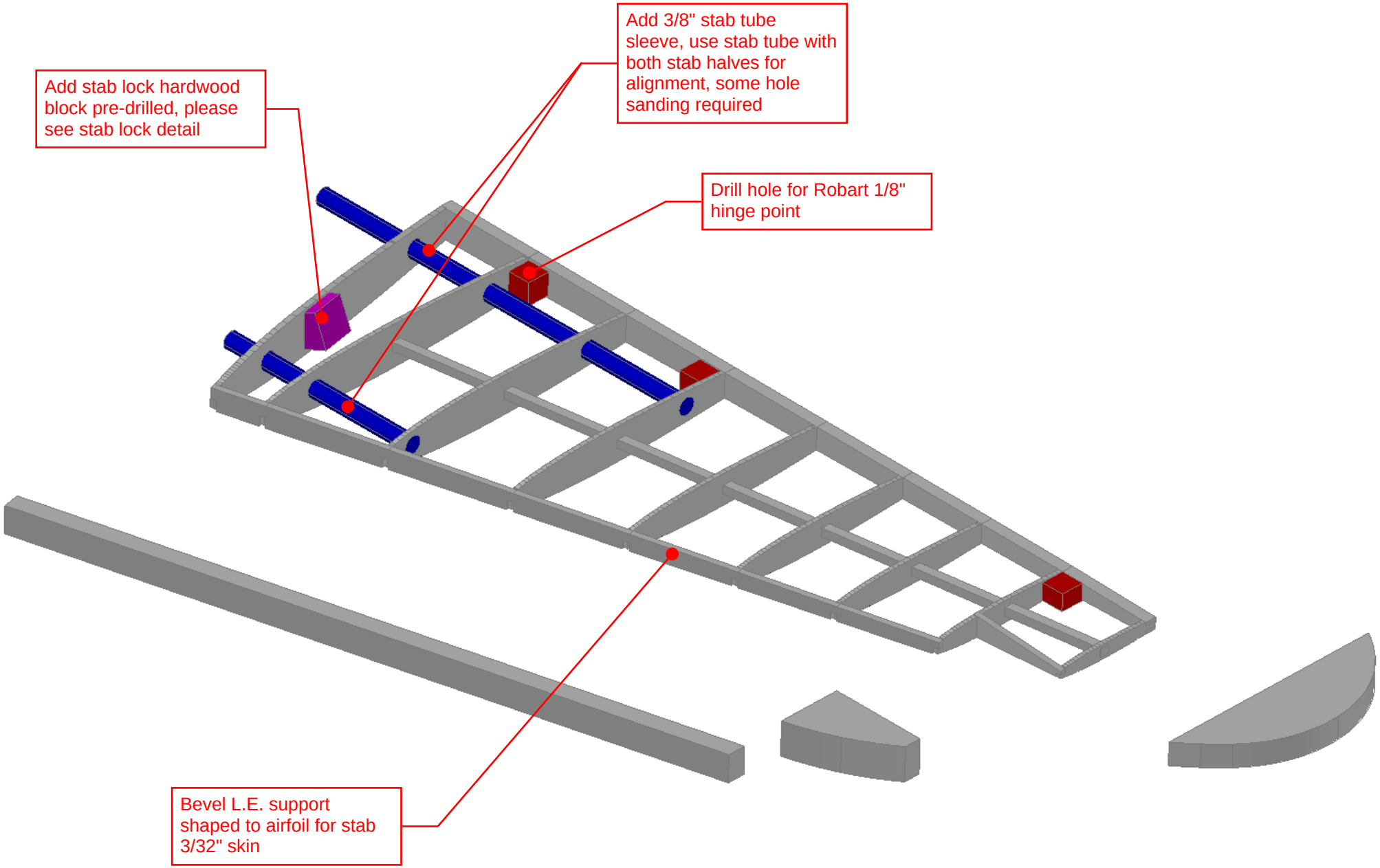
The control throws for the Ki-61 are:
1. Ailerons 1.25” each way
2. Elevators 1.25” each way
3. Rudder 2” each way
4. Flaps approx. 60° max.

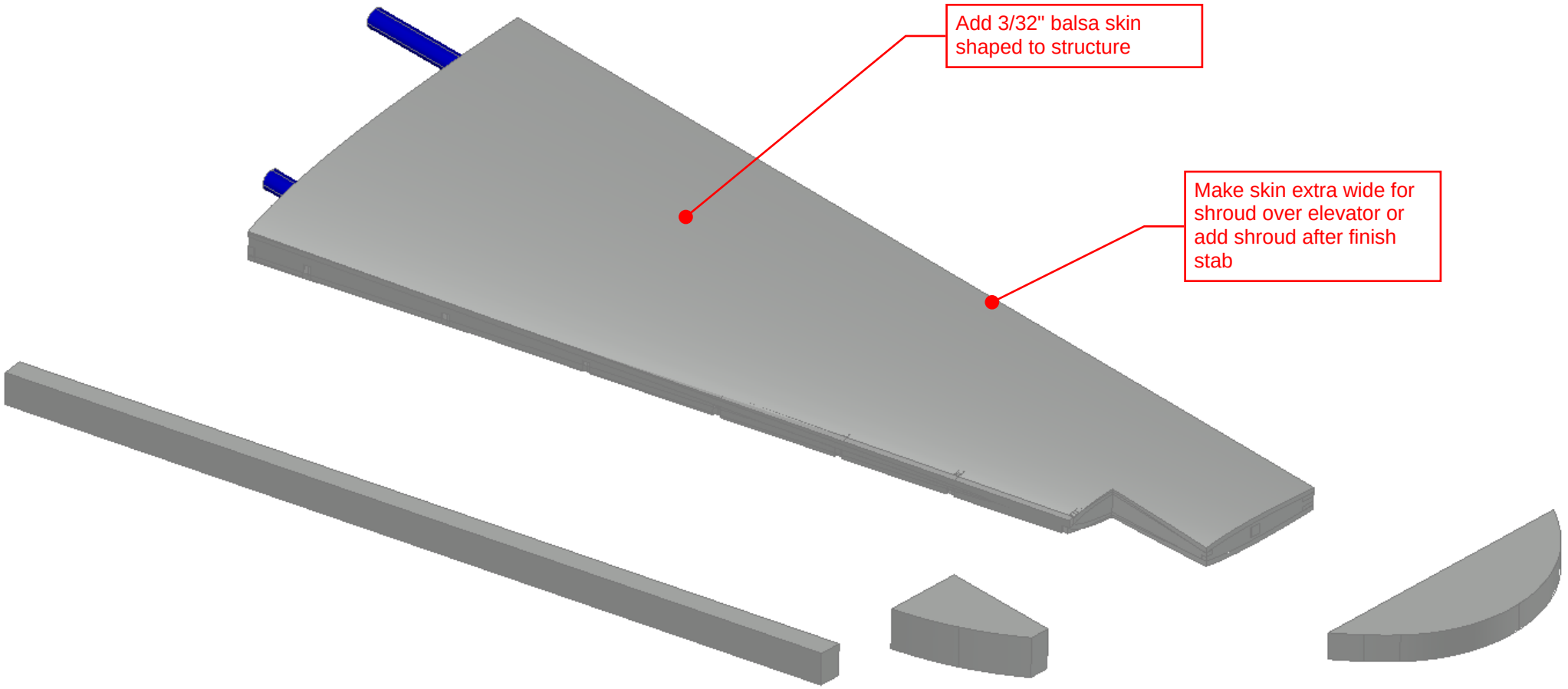
Flying characteristics of the Ki-100 are very predictable. It is like a pattern plane in slow motion. Very slow takeoff and landing capabilities, so you don’t need to use much throttle.

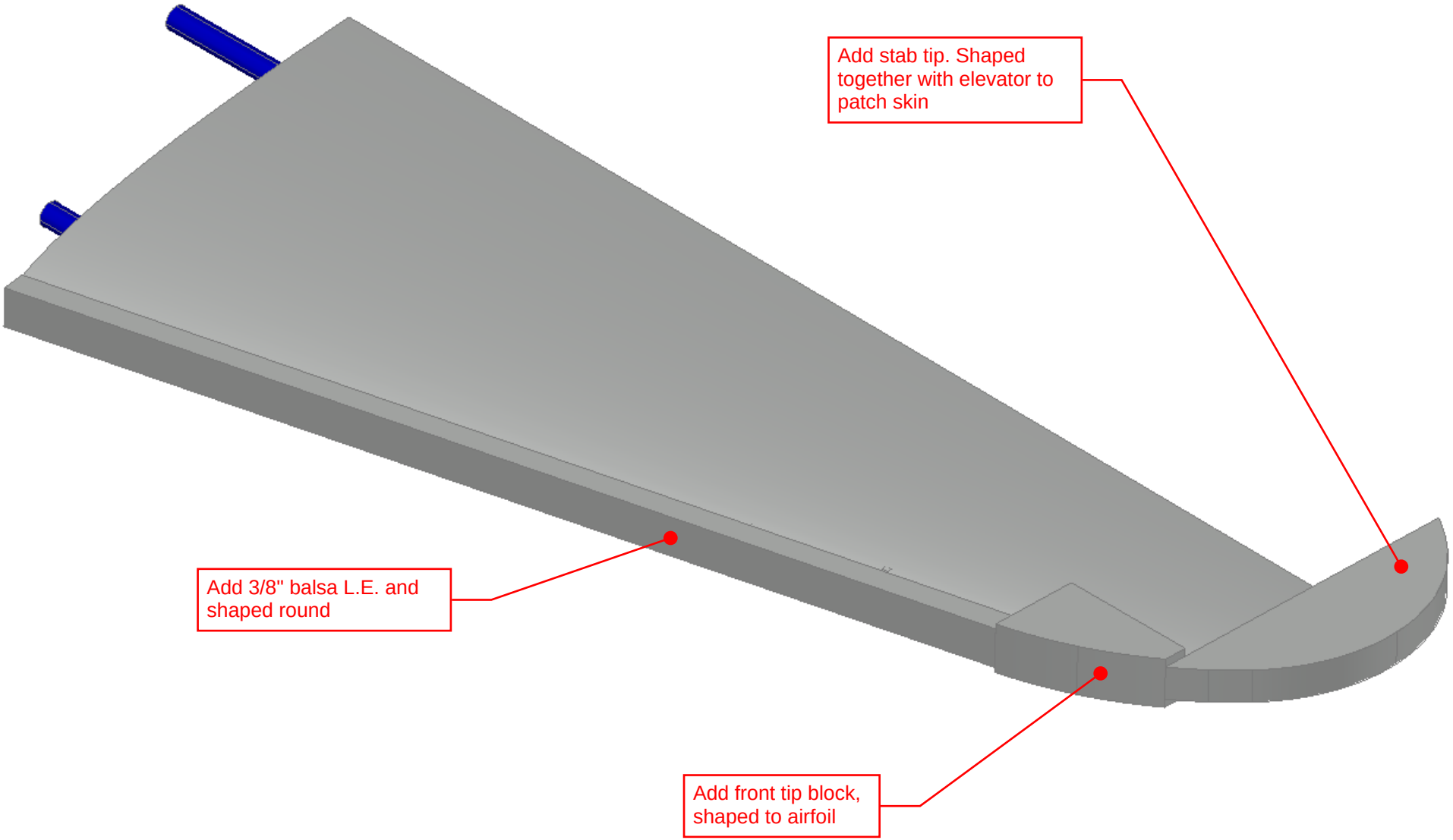
Enjoy your model!!

Use parts:
S1, S2, S3, S4, S5, S6, S7, S8, S9, S11, S12, S13, S14, S15
Add hinge blocks, 1/4 sq. balsa spar stick, 3/8" balsa L.E.

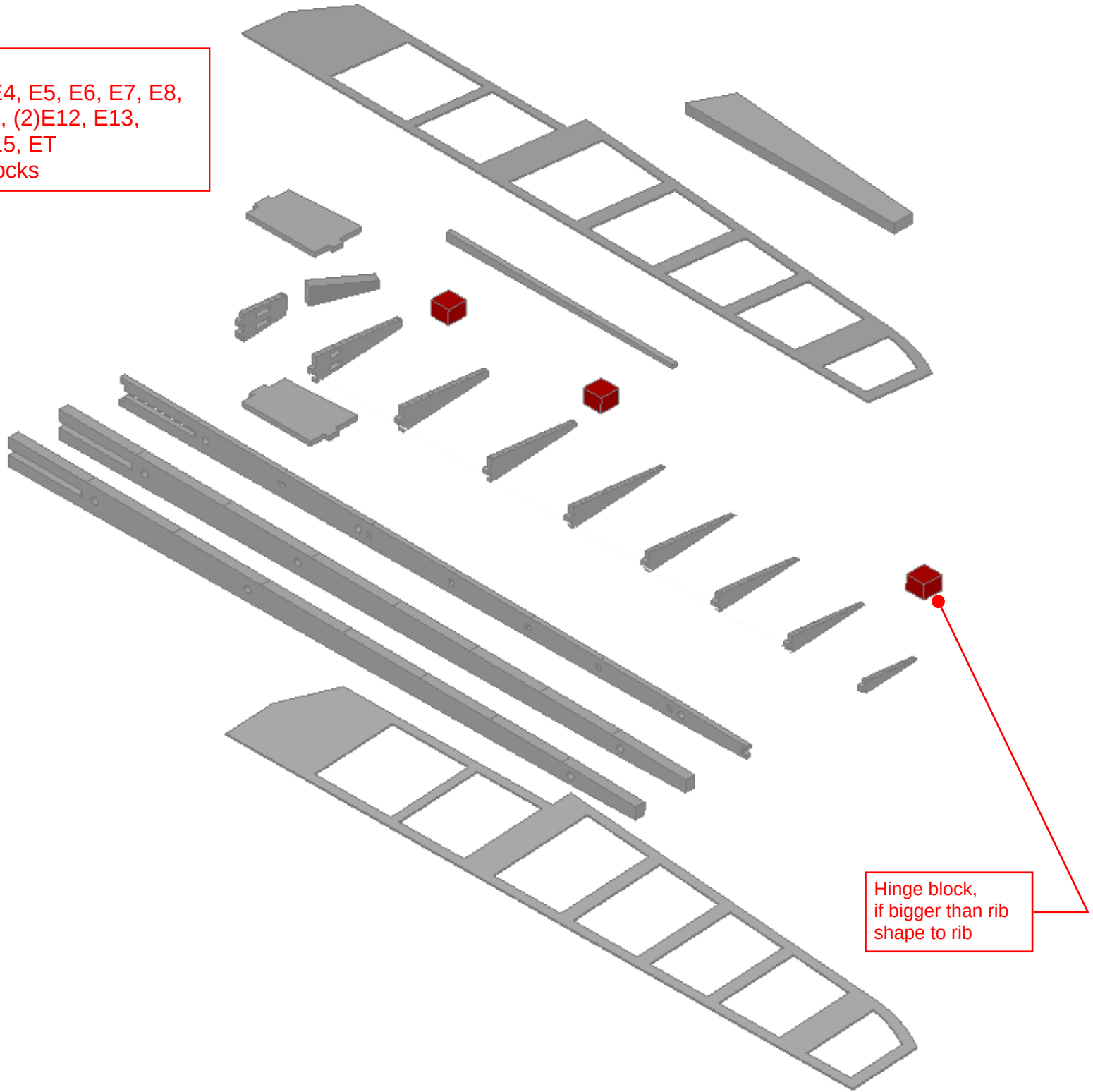


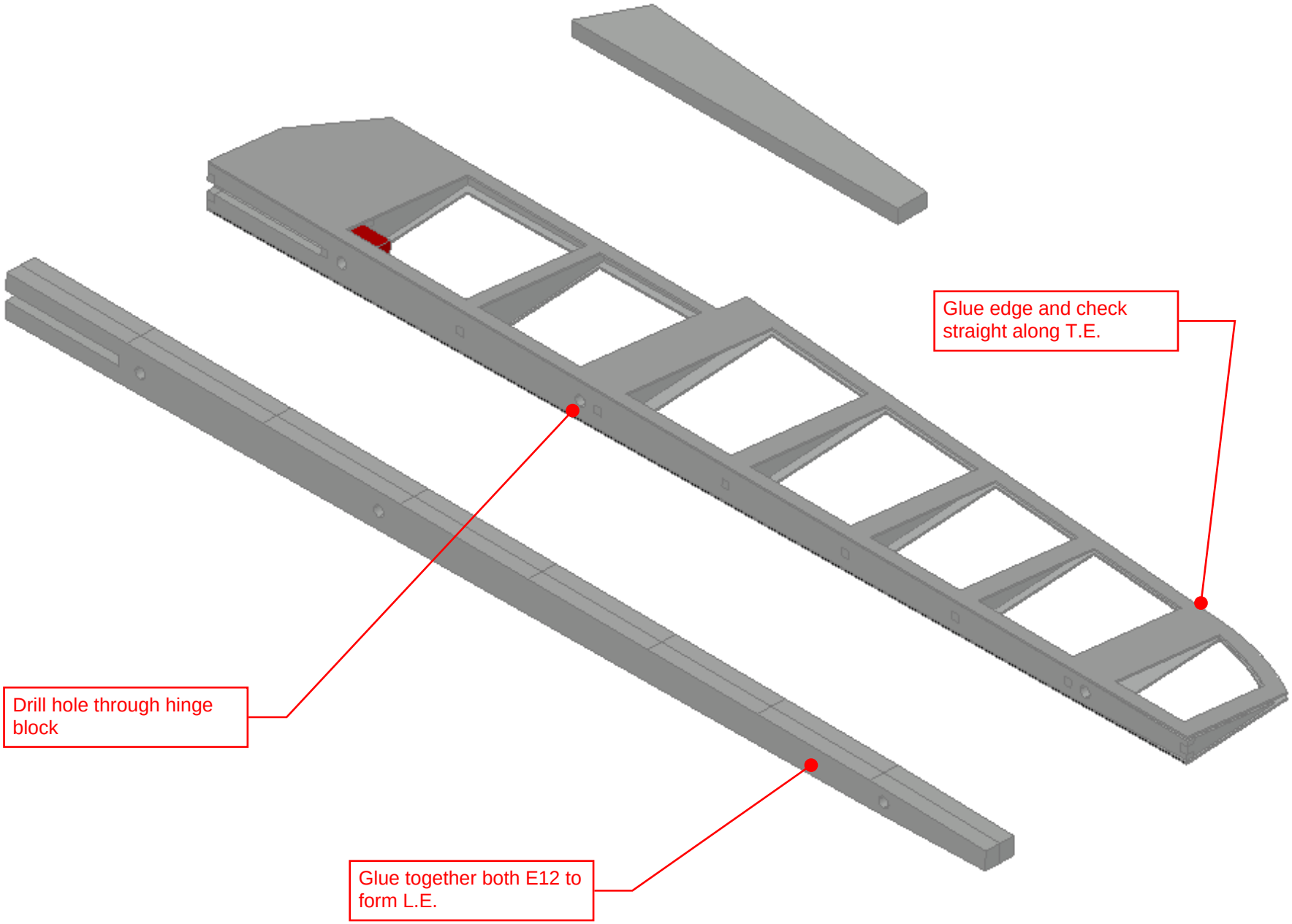

Add stab lock hardwood block pre-drilled, please see stab lock detail
Add 3/8" stab tube sleeve, use stab tube with both stab halves for alignment, some hole sanding required
Drill hole for Robart 1/8" hinge point
Bevel L.E. support shaped to airfoil for stab 3/32" skin

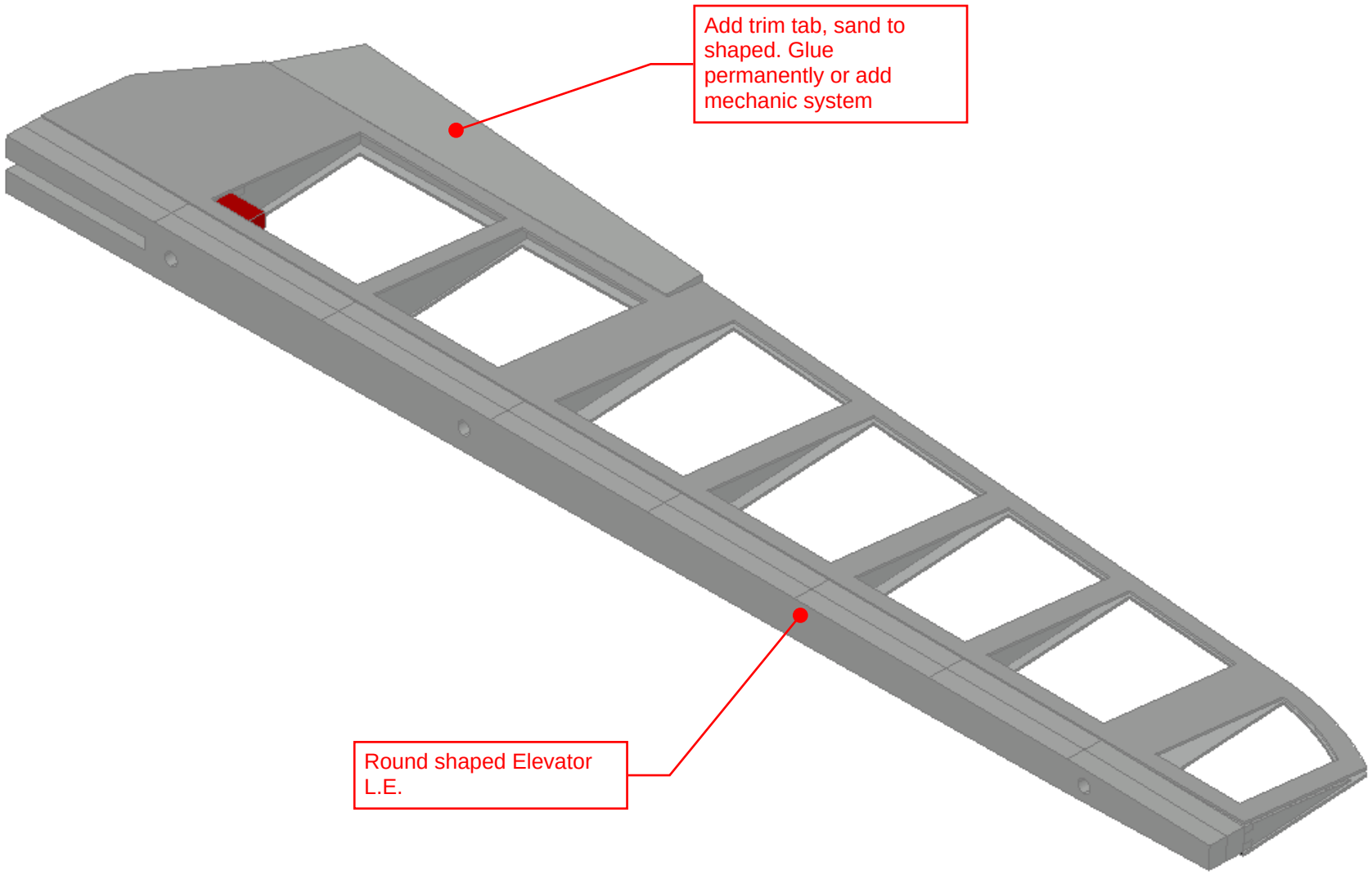

Add 3/32" balsa skin shaped to structure
Make skin extra wide for shroud over elevator or add shroud after finish stab


Add stab tip. Shaped together with elevator to patch skin
Add 3/8" balsa L.E. and shaped round
Add front tip block, shaped to airfoil

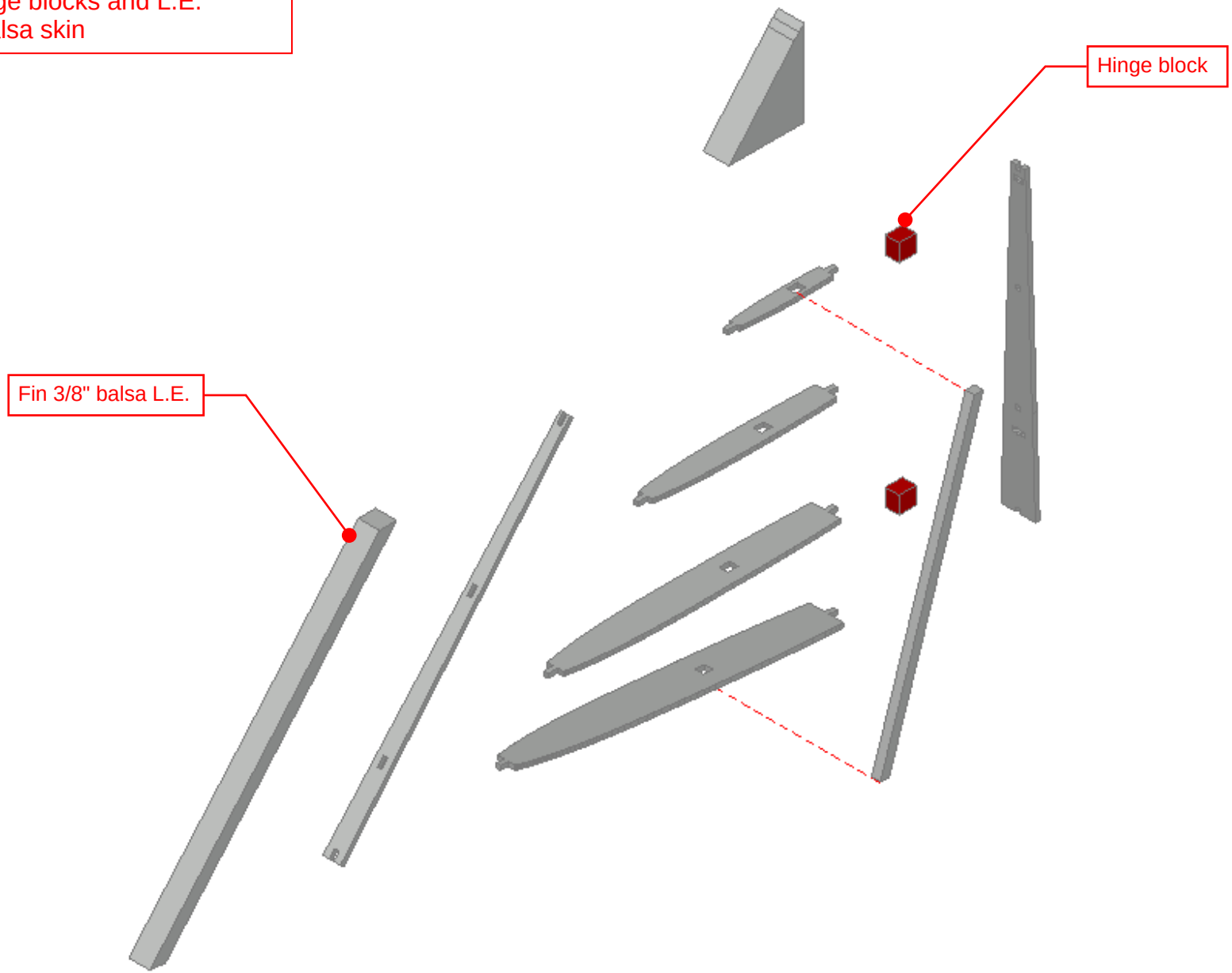
Use parts:
E1, E2, E3, E4, E5, E6, E7, E8,
E9, E10, E11, (2)E12, E13,
(2)E14, (2)E15, ET
Add hinge blocks

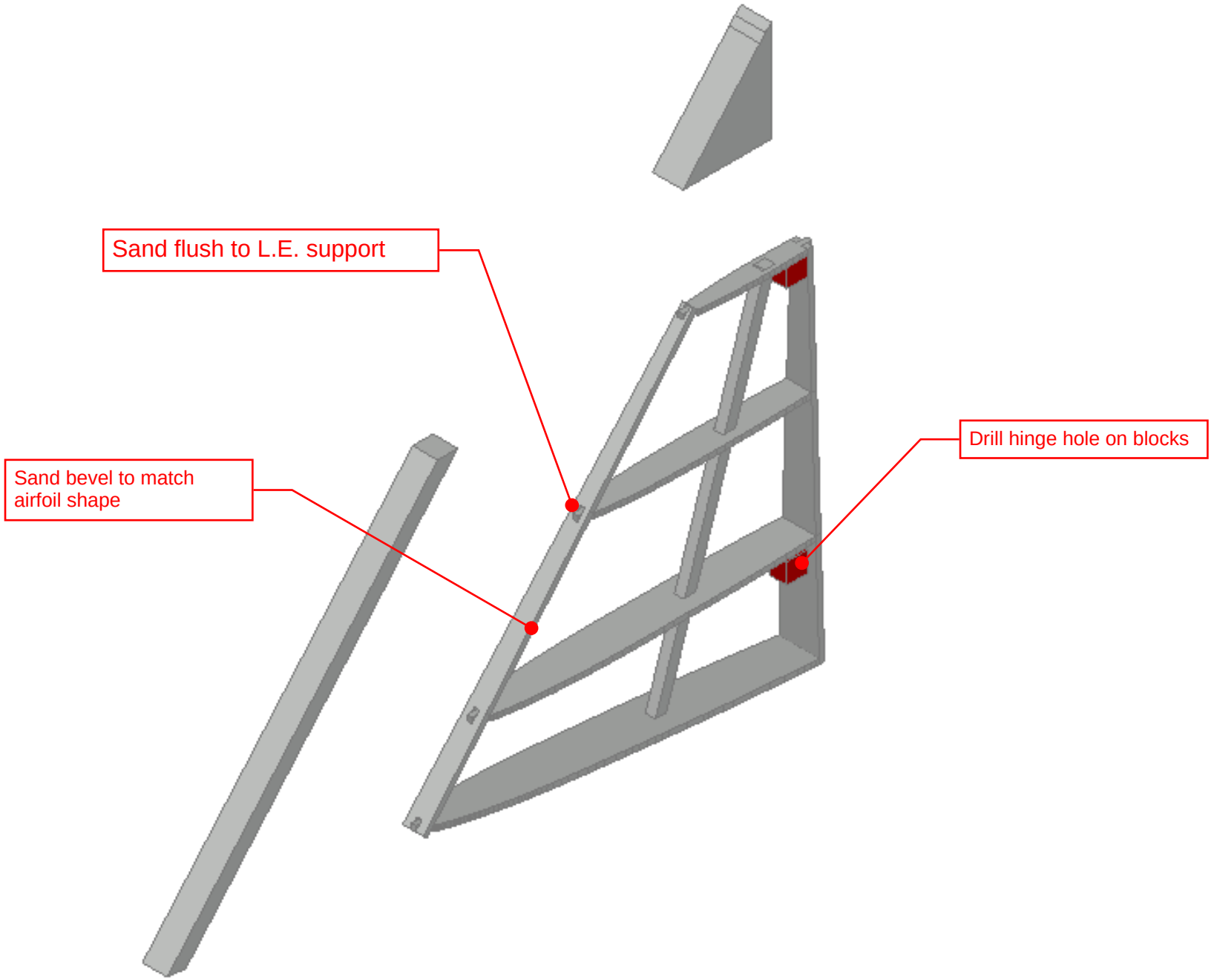


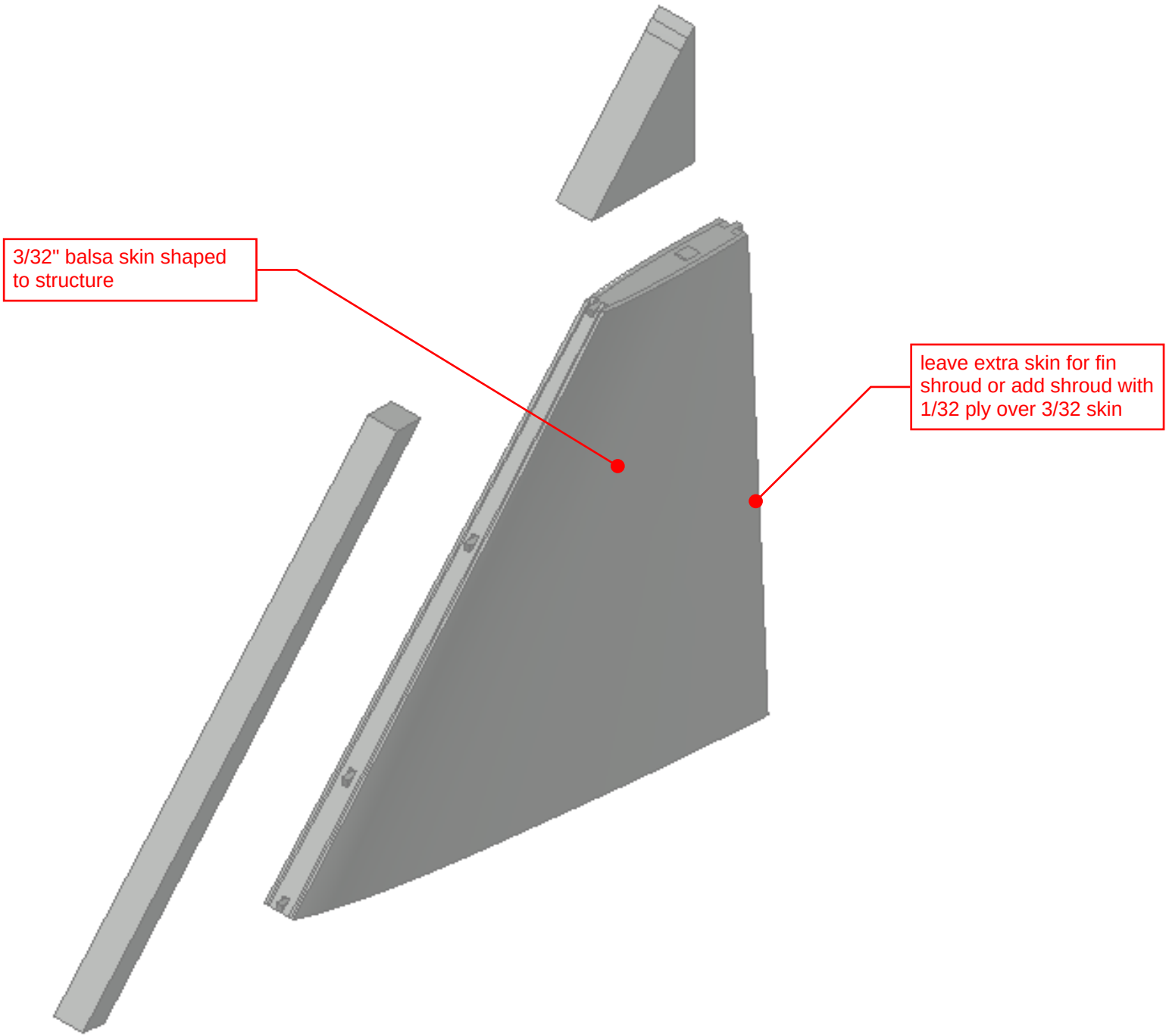

Glue edge and check straight along T.E.
Drill hole through hinge block
Glue together both E12 to form L.E.

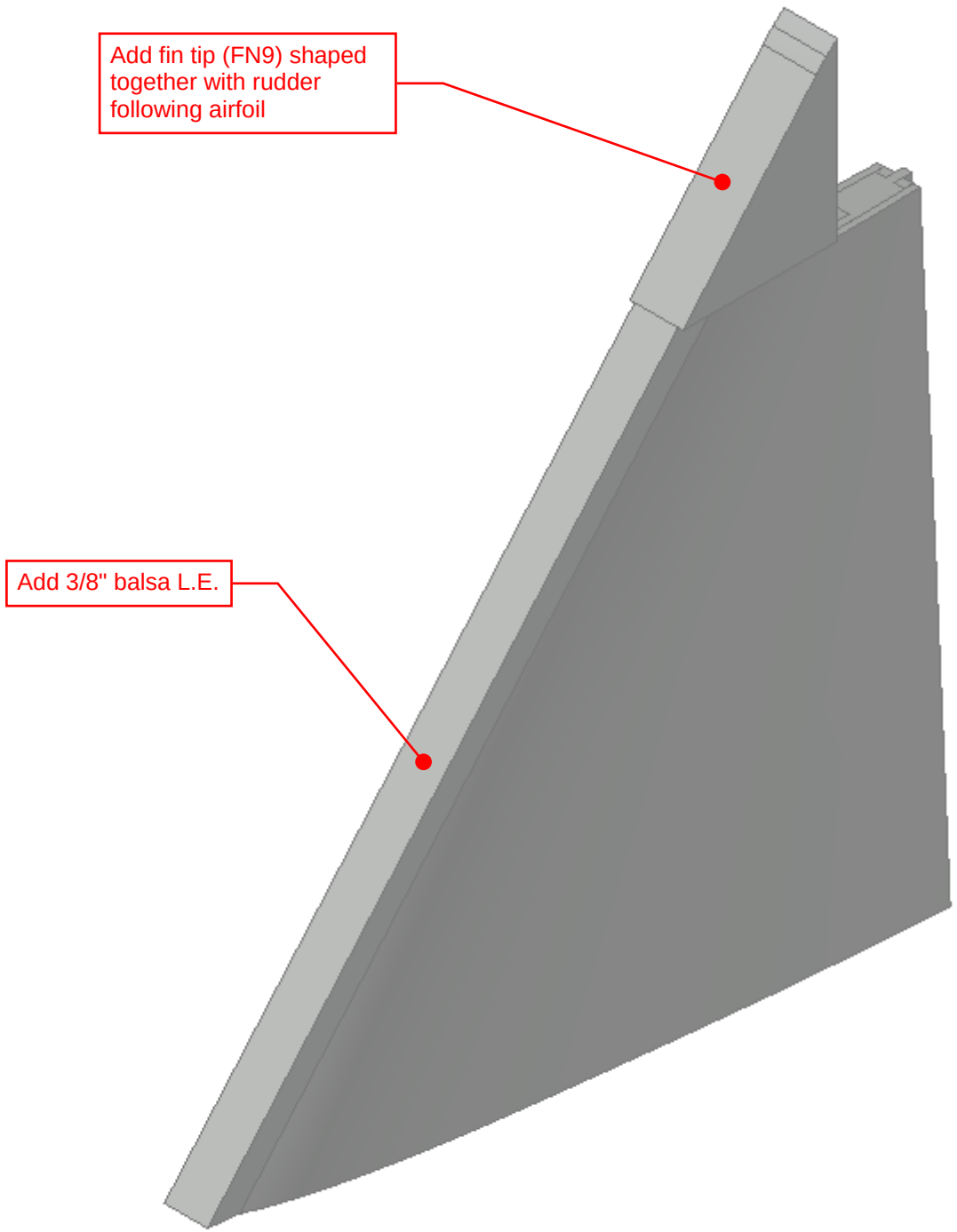

Add trim tab, sand to shaped. Glue permanently or add mechanic system
Round shaped Elevator L.E.

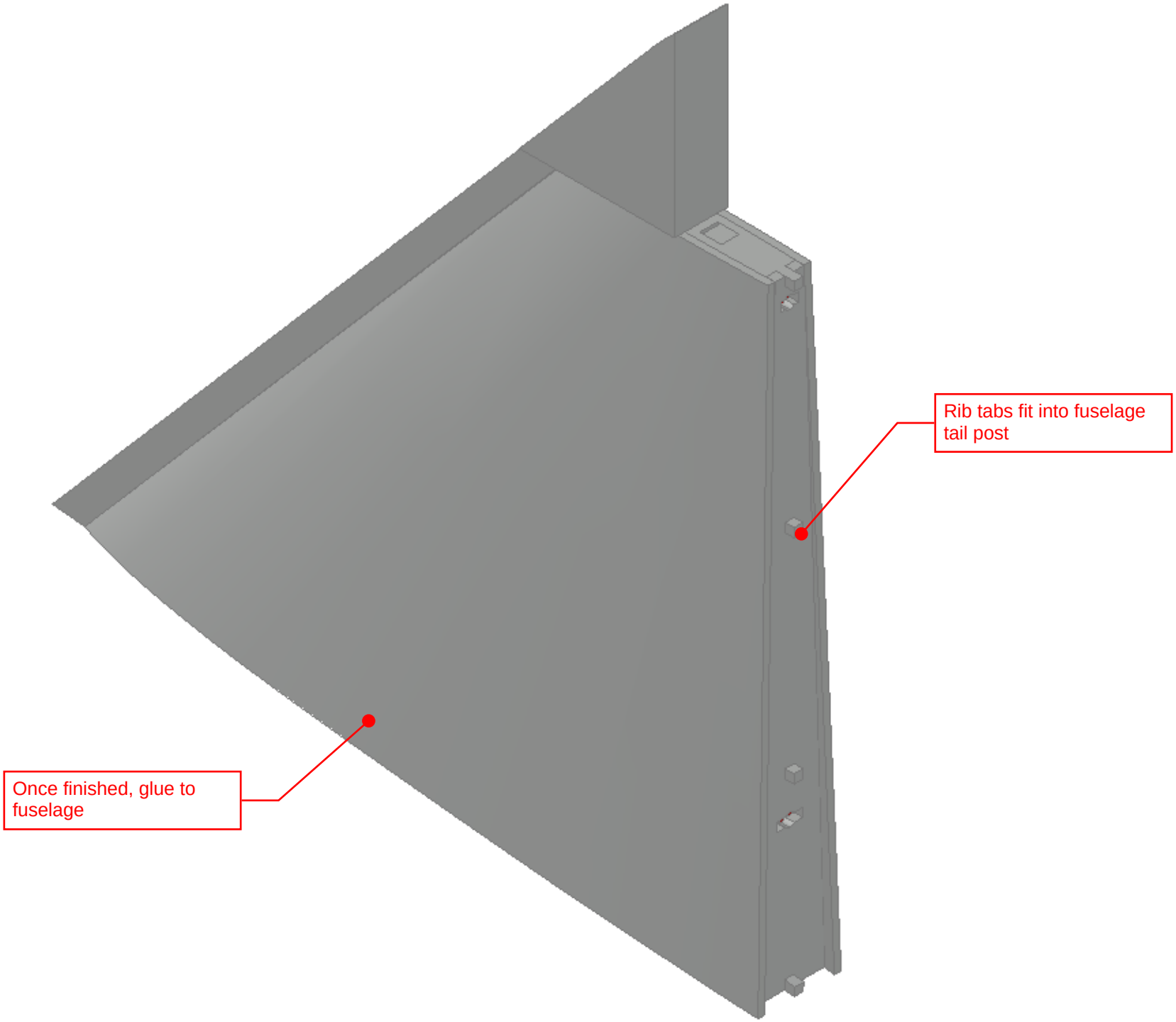
Use parts:
FN1, FN2, FN3, FN4, FN5, FN6, FN9
Add hinge blocks and L.E. 3/32" balsa skin



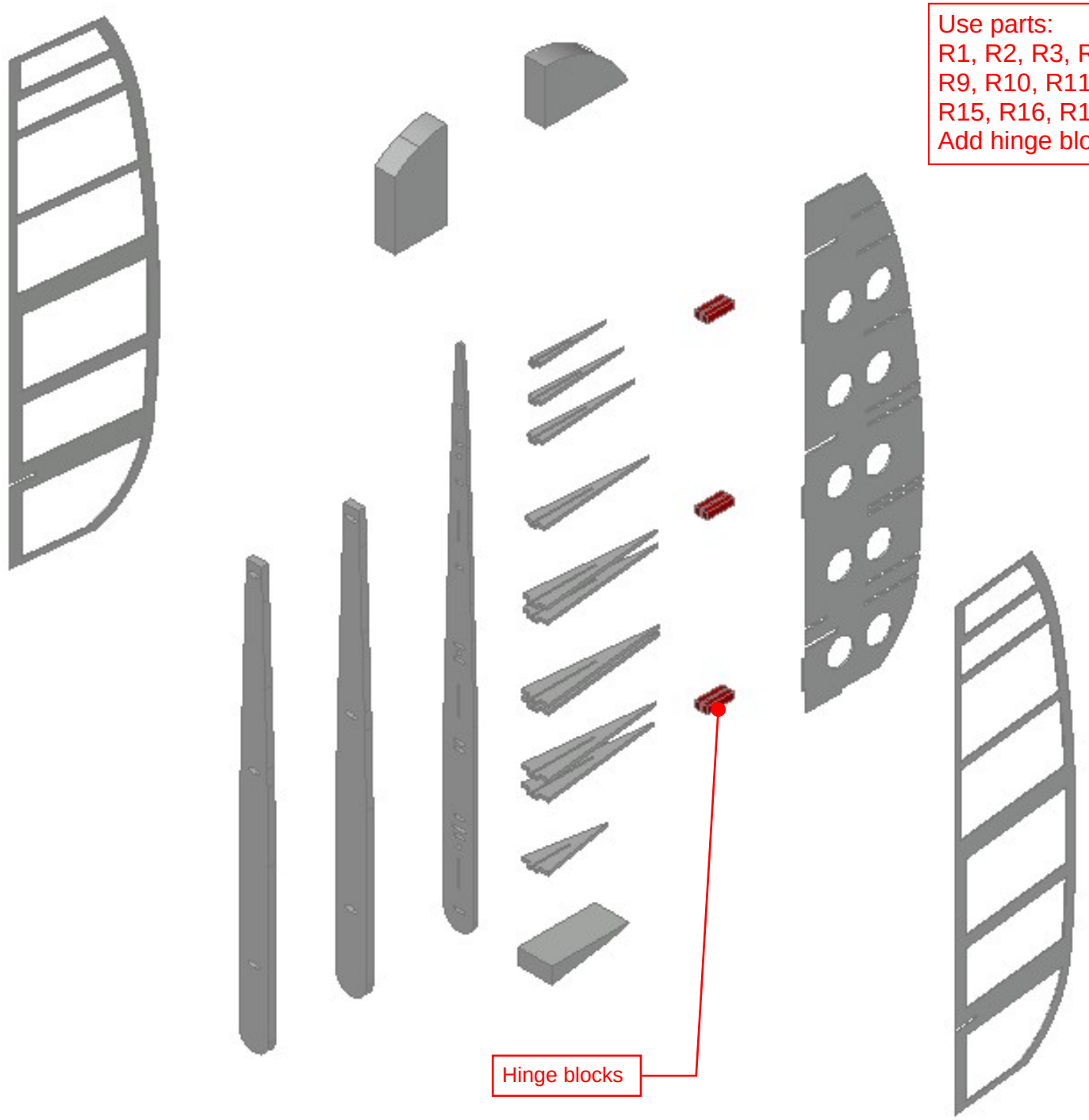

Sand flush to L.E. support
Sand bevel to match airfoil shape
Drill hinge hole on blocks

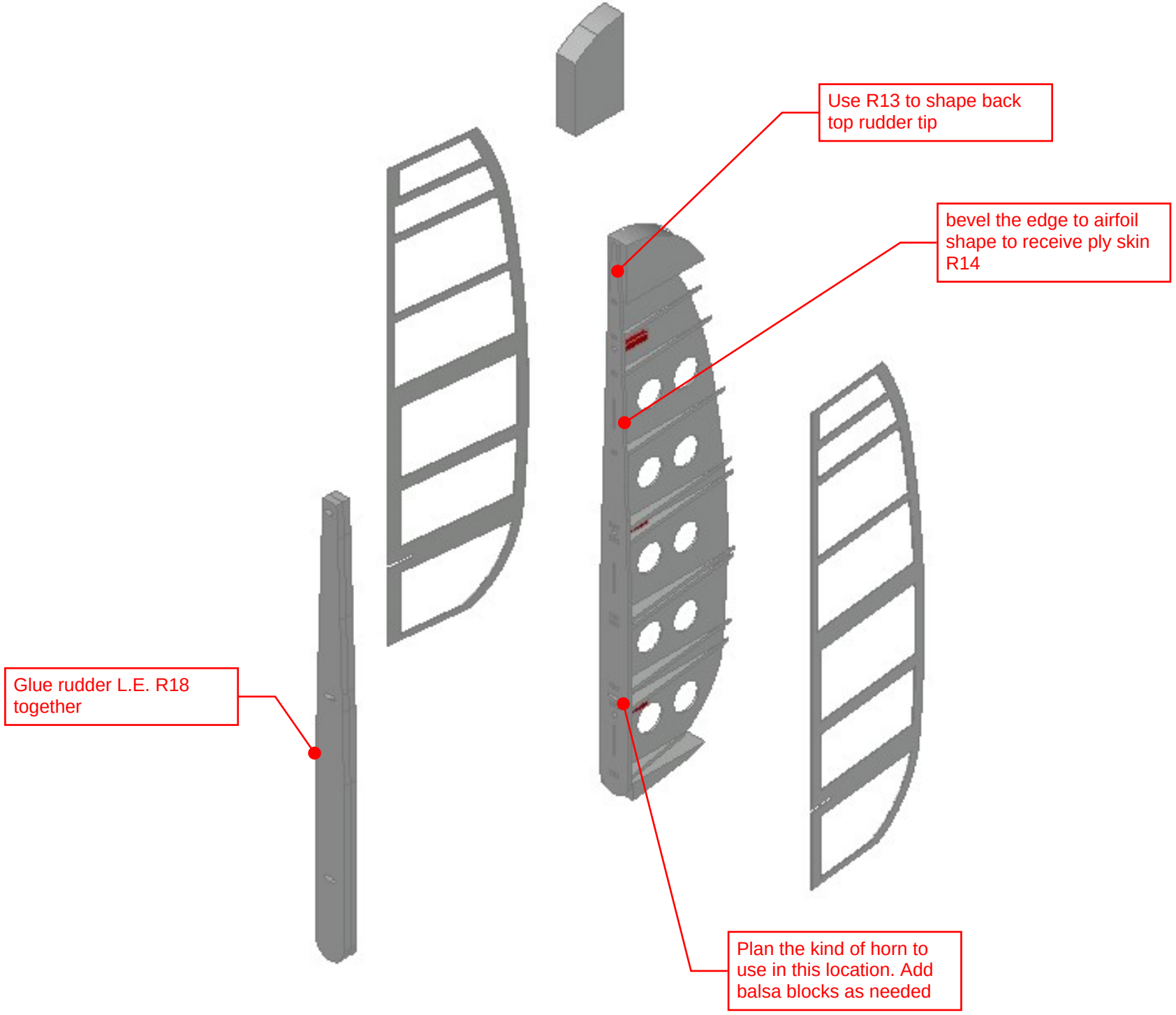

3/32" balsa skin shaped to structure
leave extra skin for fin shroud or add shroud with 1/32 ply over 3/32 skin

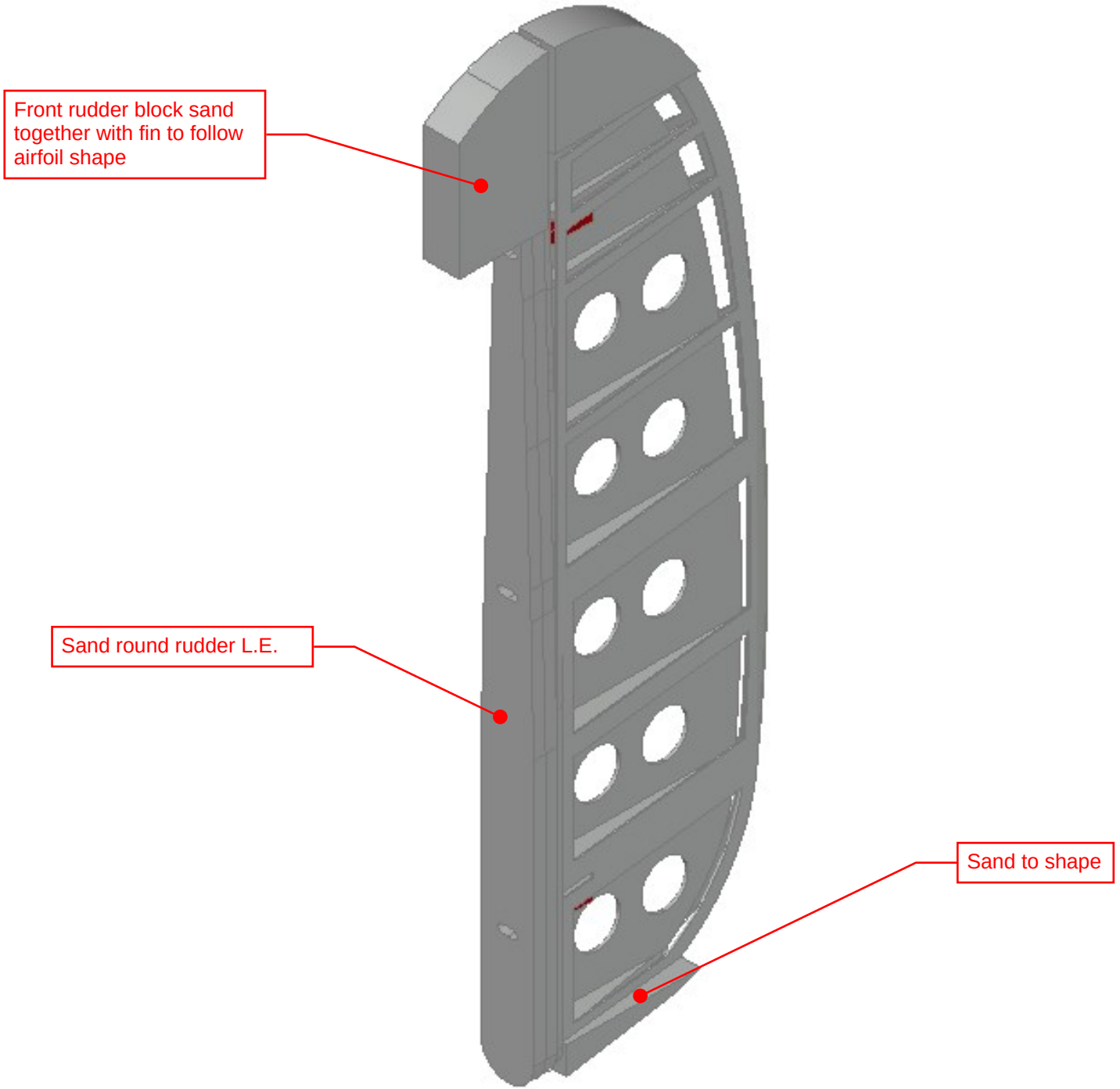

Add fin tip (FN9) shaped together with rudder following airfoil
Add 3/8" balsa L.E.


Rib tabs fit into fuselage tail post
Once finished, glue to fuselage

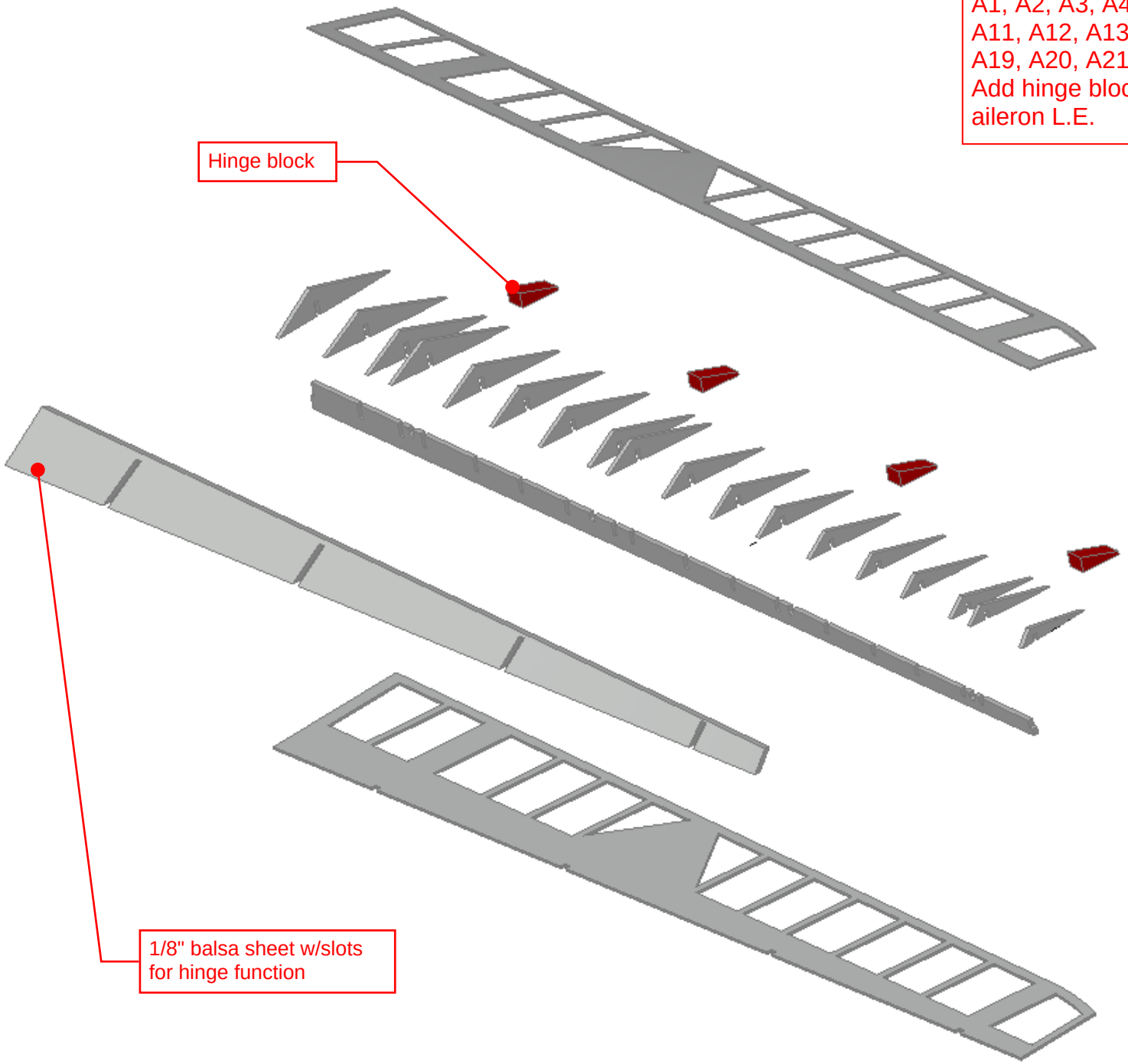
Use parts:
R1, R2, R3, R4, R5, R6, R7, R8,
R9, R10, R11, R12, R13, R14,
R15, R16, R17, R18
Add hinge blocks

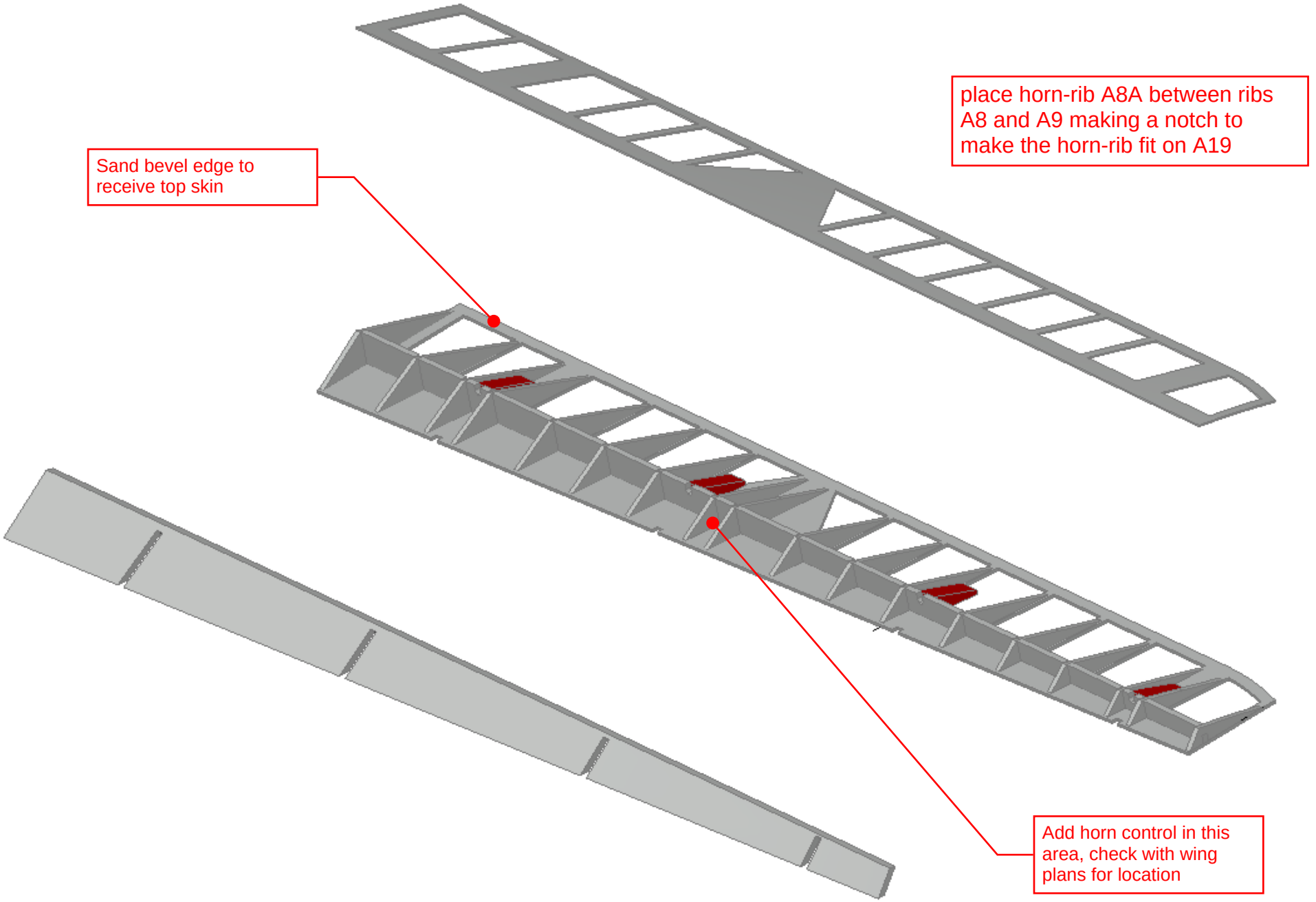


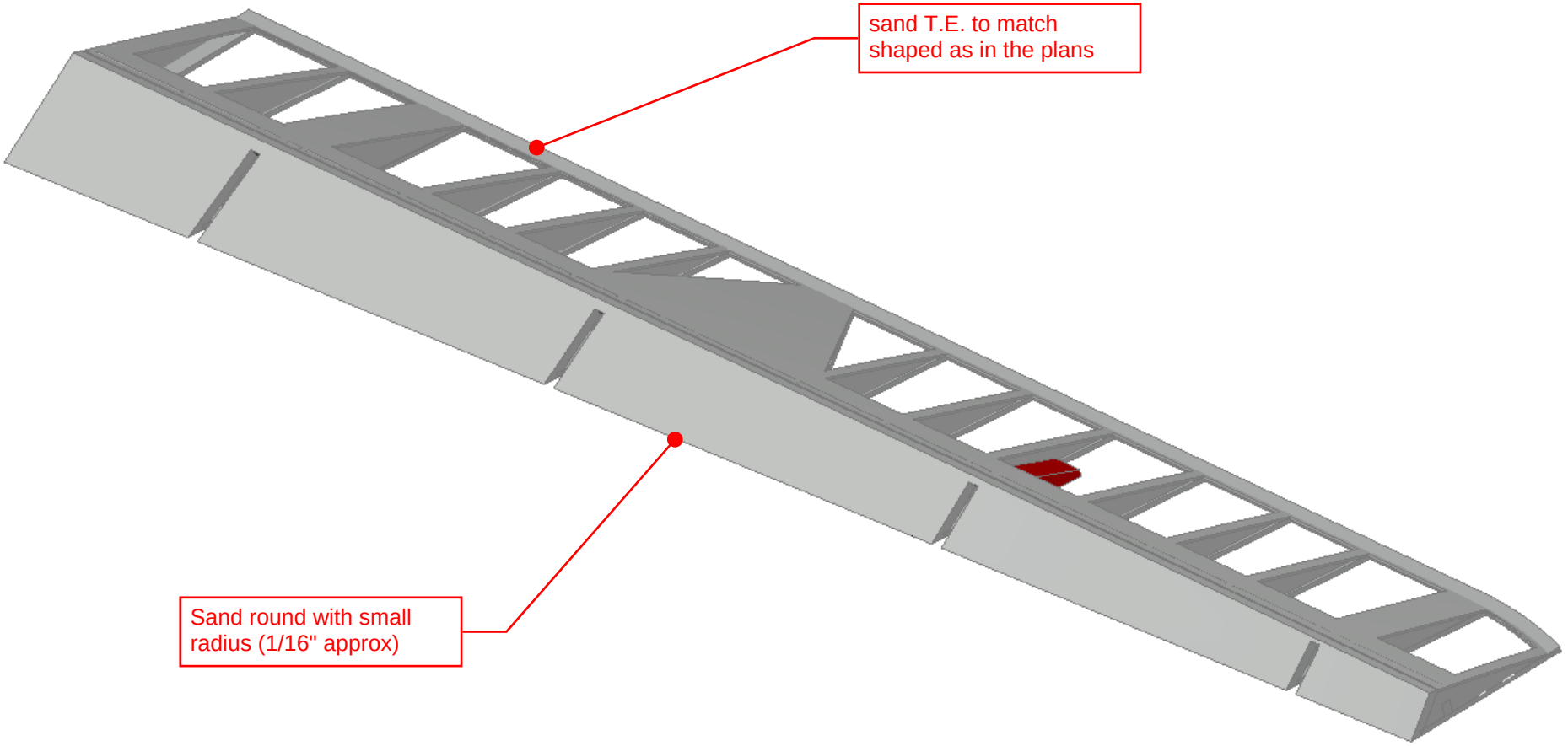

Use R13 to shape back top rudder tip
bevel the edge to airfoil shape to receive ply skin R14
Glue rudder L.E. R18 together
Plan the kind of horn to use in this location. Add balsa blocks as needed


Front rudder block sand together with fin to follow airfoil shape
Sand round rudder L.E.
Sand to shape

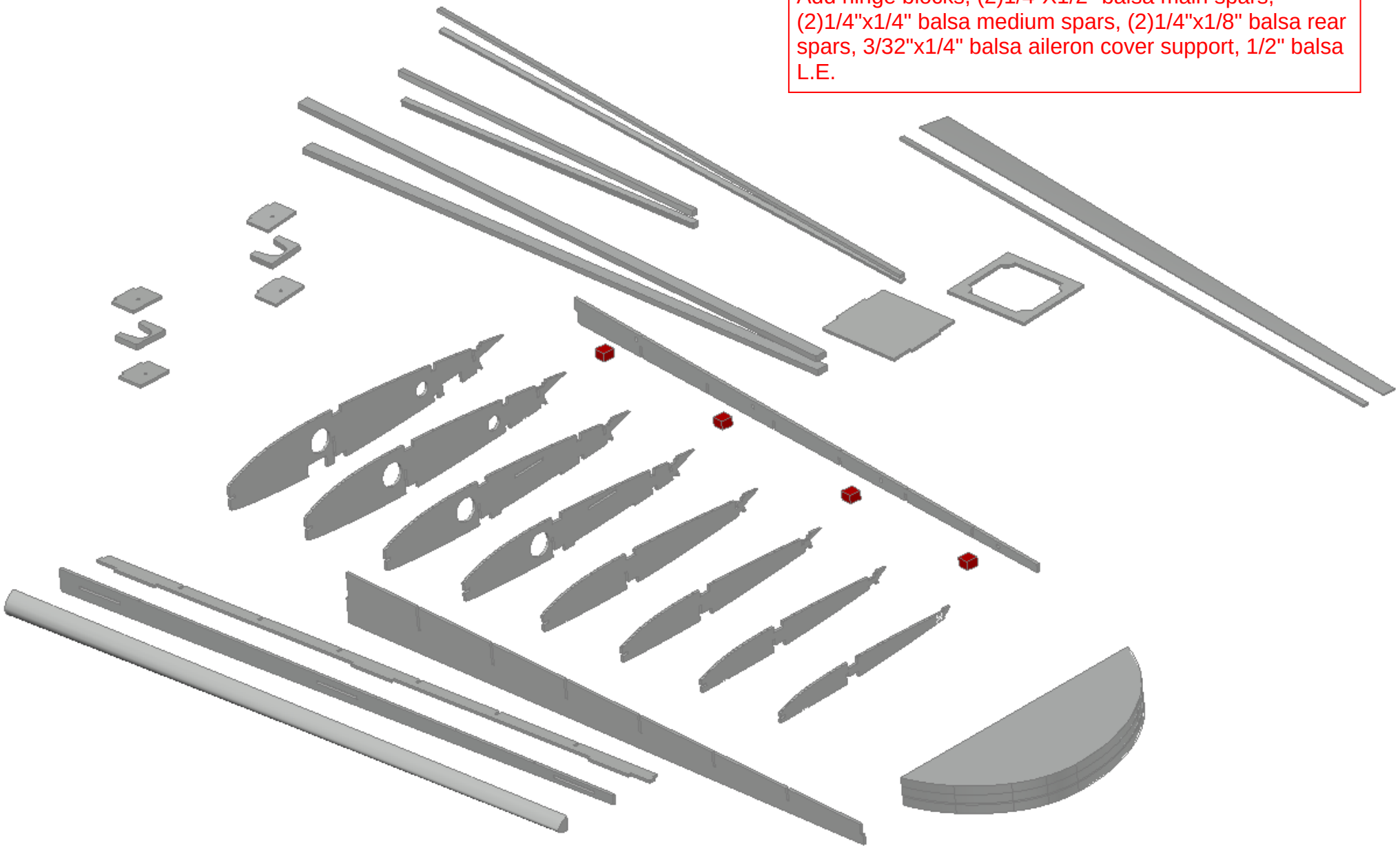
Use parts:
A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21
Add hinge blocks and 1/8" balsa sheet for aileron L.E.

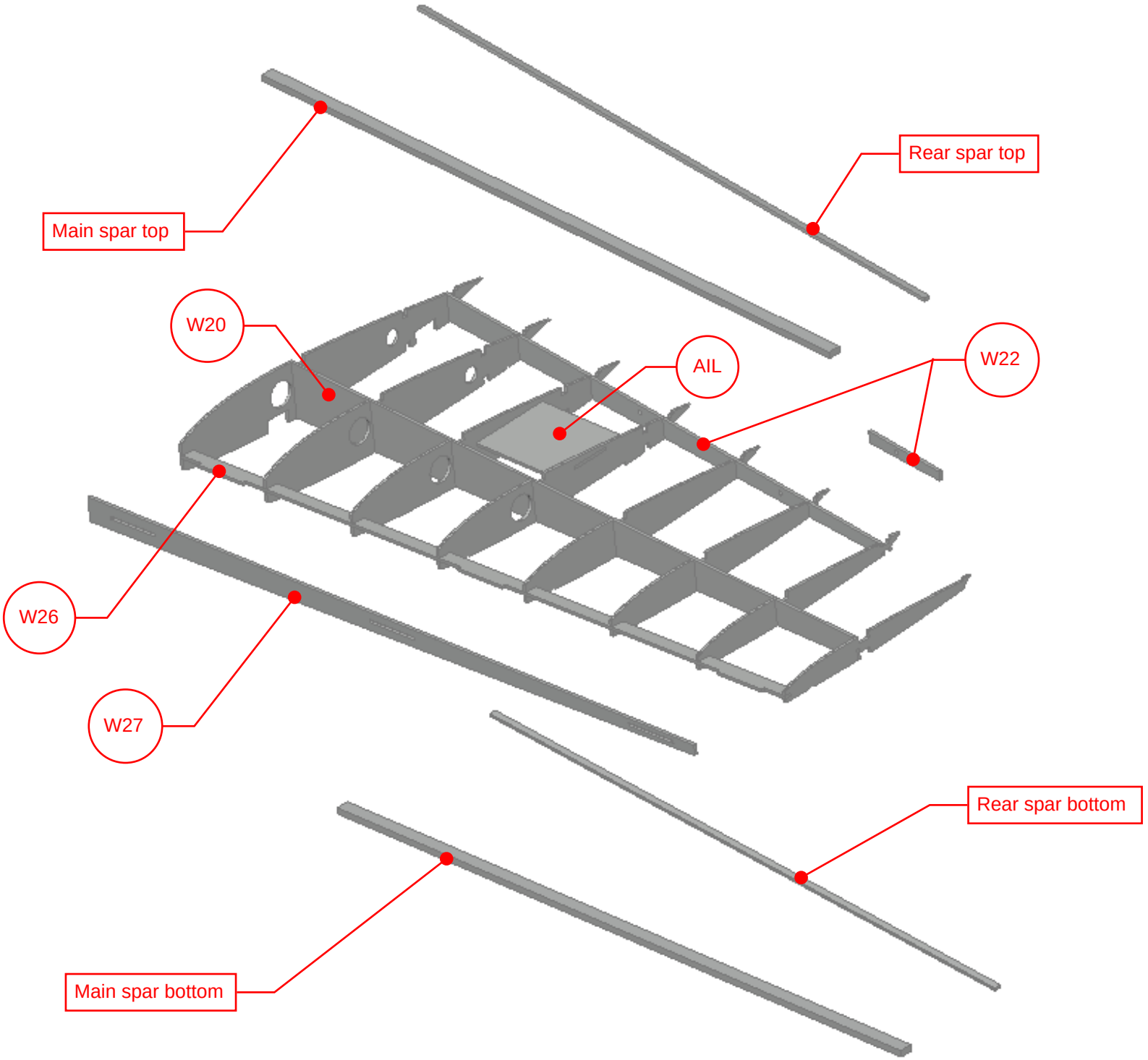


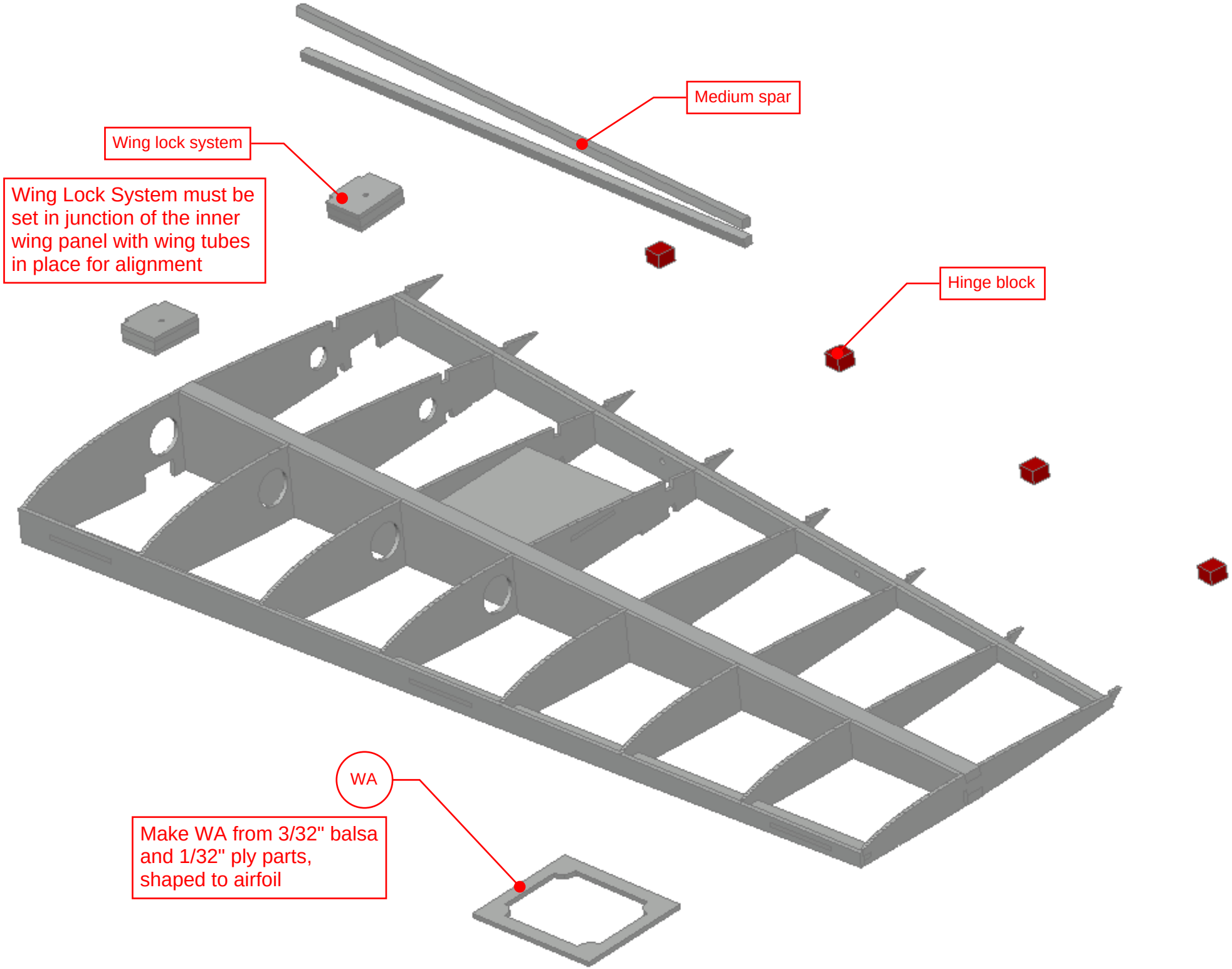

place horn-rib A8A between ribs A8 and A9 making a notch to make the horn-rib fit on A19
Sand bevel edge to receive top skin
Add horn control in this area, check with wing plans for location

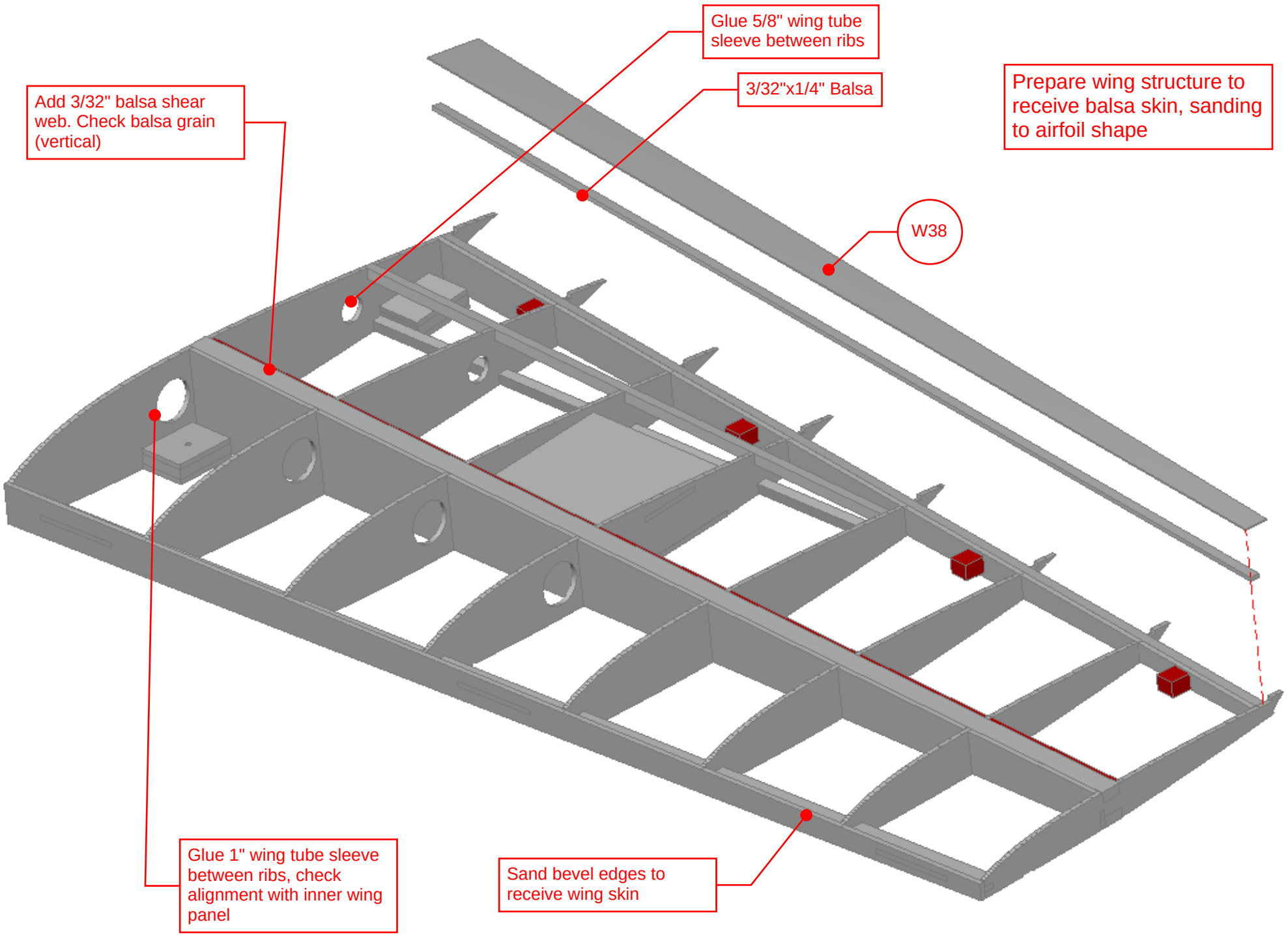

sand T.E. to match
shaped as in the plans
Sand round with small
radius (1/16" approx)

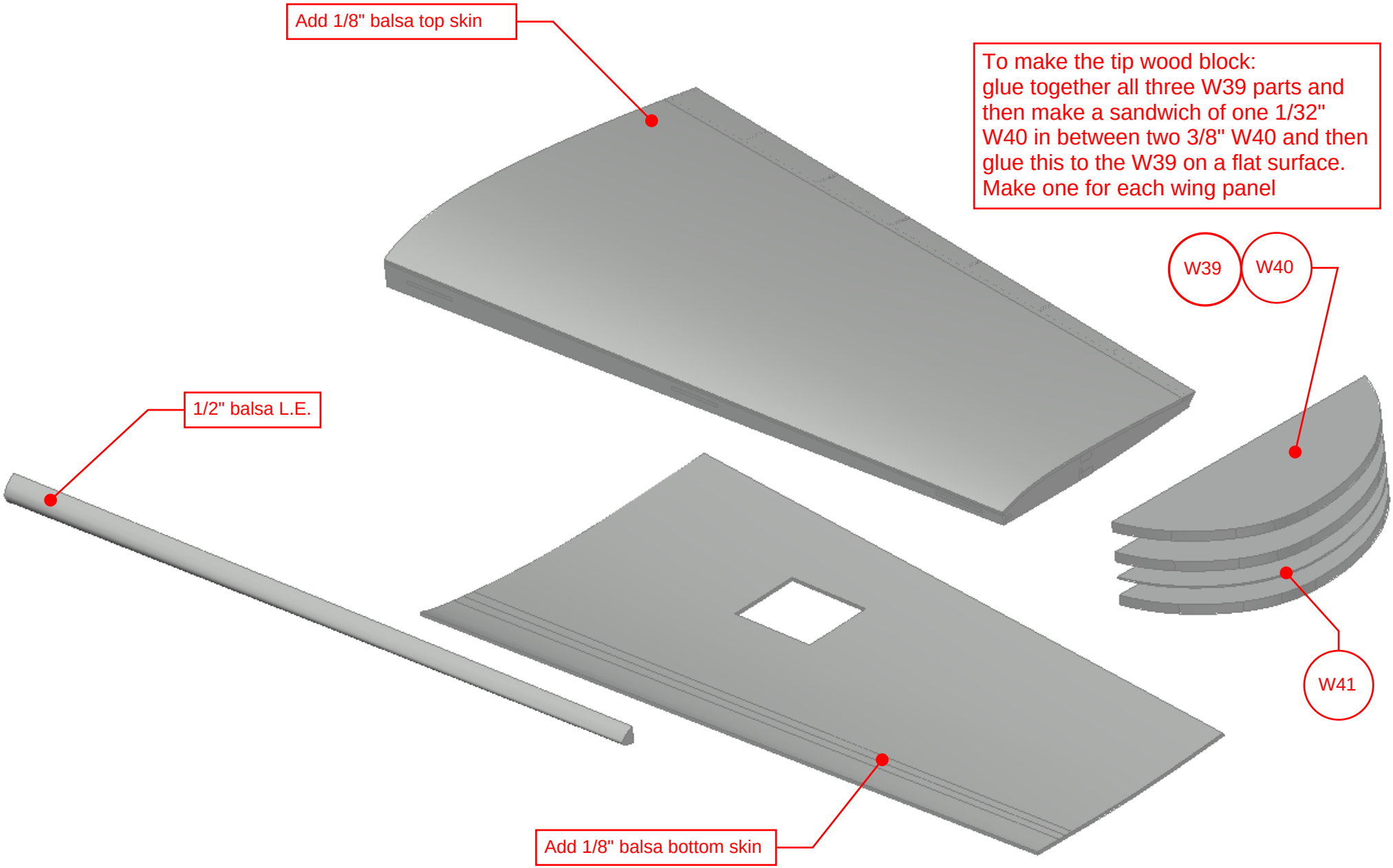
Use parts:
W11, W12, W13, W14, W15, W16, W17, W18, W20, W22, W26, W27, W38, W39, W40, W41, AIL, WA, WL3, WL4
Add hinge blocks, (2)1/4"X1/2" balsa main spars, (2)1/4"x1/4" balsa medium spars, (2)1/4"x1/8" balsa rear spars, 3/32"x1/4" balsa aileron cover support, 1/2" balsa L.E.

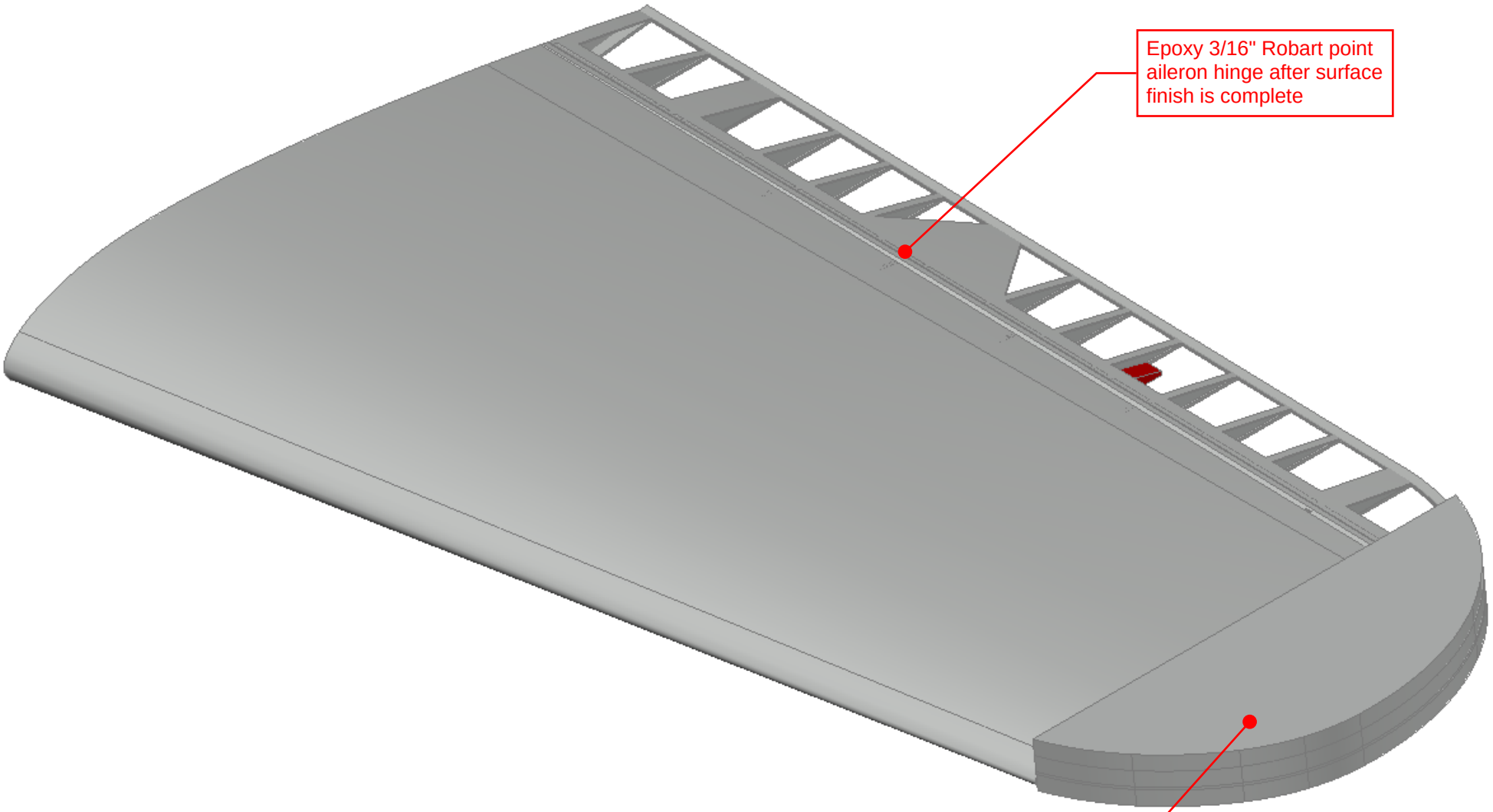


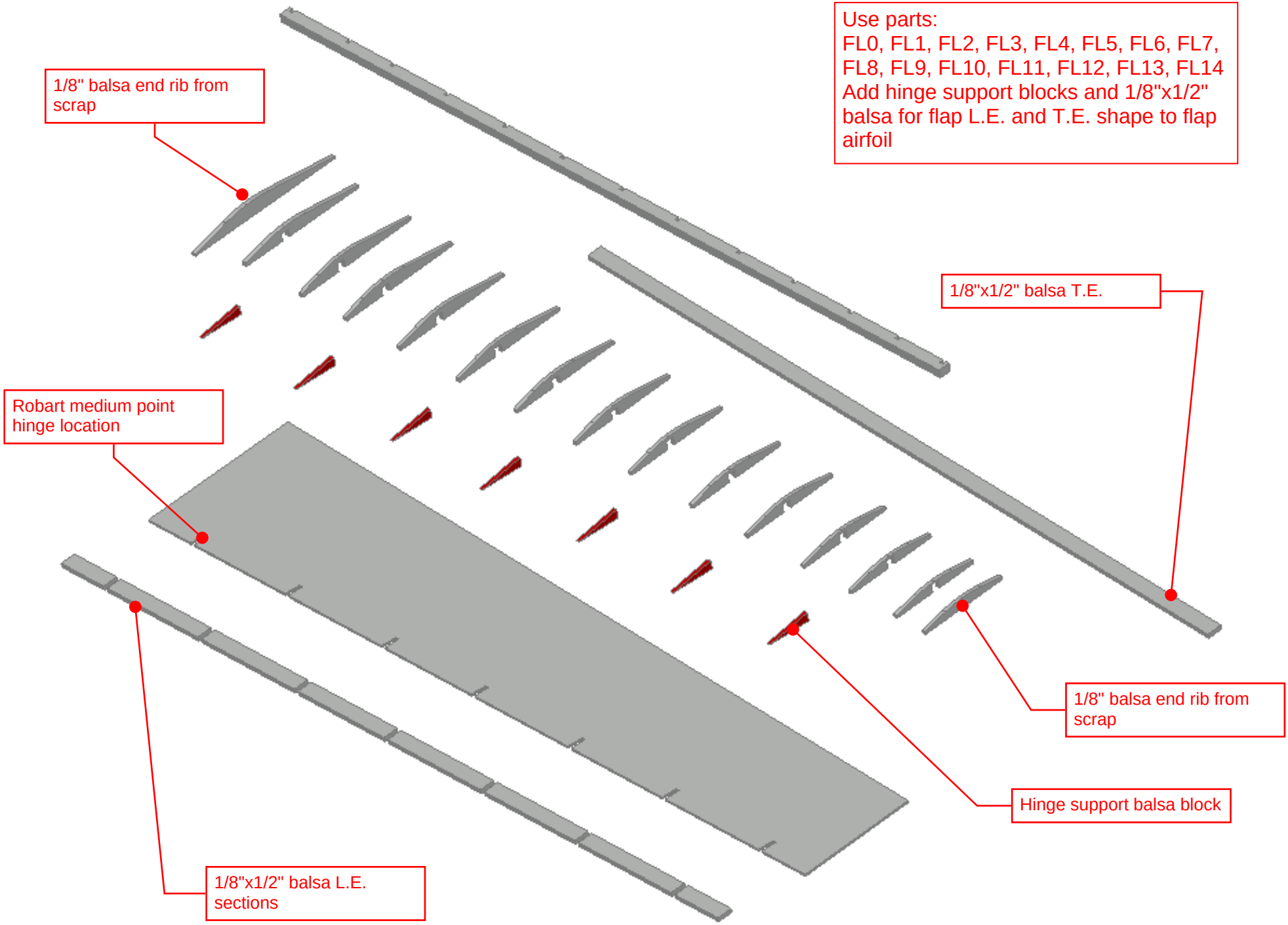

Main spar top
Rear spar top
W20
AIL
W22
W26
W27
Rear spar bottom
Main spar bottom

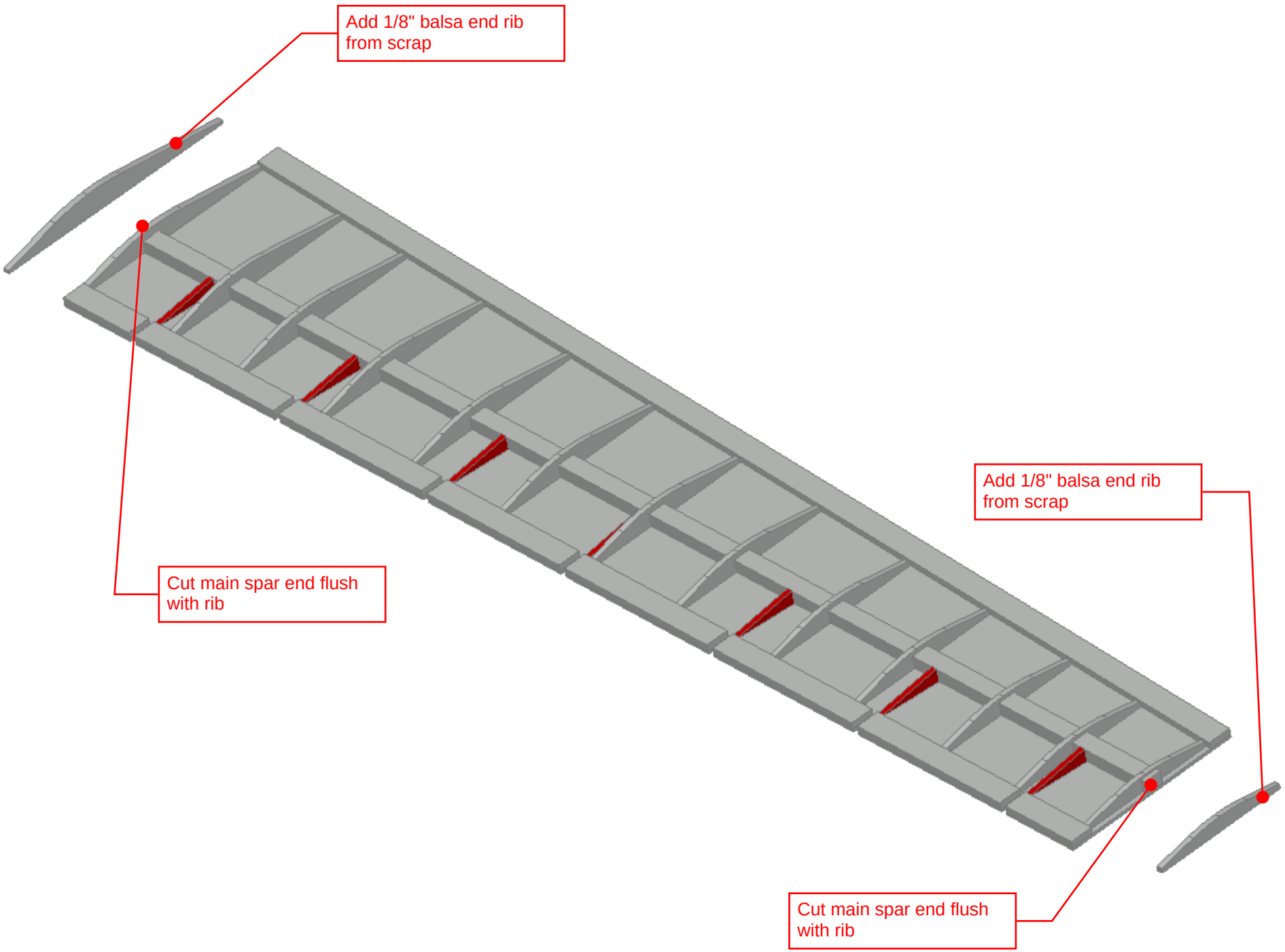

Medium spar
Wing lock system
Wing Lock System must be set in junction of the inner wing panel with wing tubes in place for alignment
Hinge block
WA
Make WA from 3/32" balsa and 1/32" ply parts, shaped to airfoil

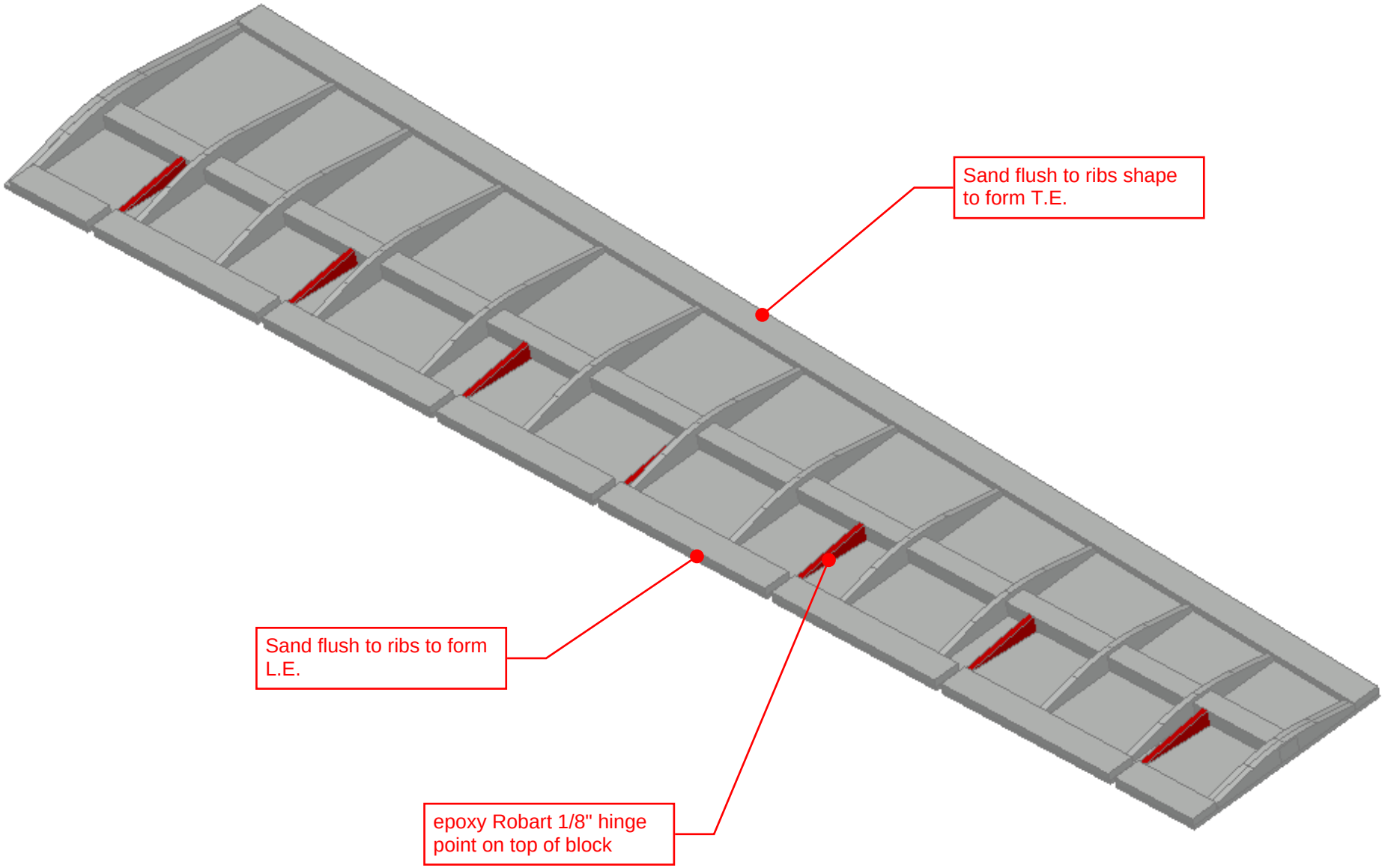

Glue 5/8" wing tube sleeve between ribs
3/32"x1/4" Balsa
Prepare wing structure to receive balsa skin, sanding to airfoil shape
Add 3/32" balsa shear web. Check balsa grain (vertical)
W38
Glue 1" wing tube sleeve between ribs, check alignment with inner wing panel
Sand bevel edges to receive wing skin

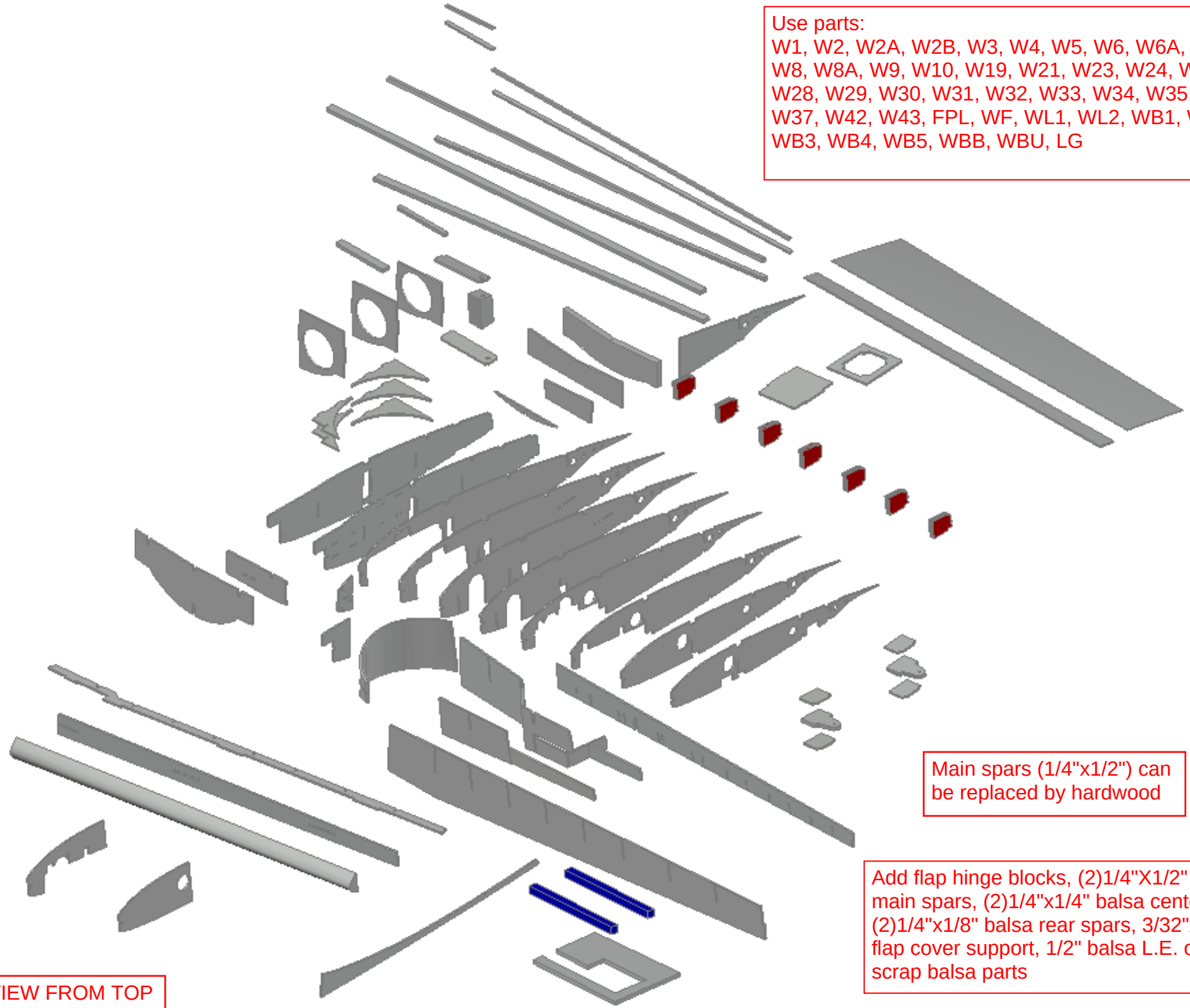

Add 1/8" balsa top skin
To make the tip wood block:
glue together all three W39 parts and
then make a sandwich of one 1/32"
W40 in between two 3/8" W40 and then
glue this to the W39 on a flat surface.
Make one for each wing panel
W39
W40
1/2" balsa L.E.
W41
Add 1/8" balsa bottom skin


Epoxy 3/16" Robart point aileron hinge after surface finish is complete
Sand wing tip shaped to airfoil together with aileron


Use parts:
FL0, FL1, FL2, FL3, FL4, FL5, FL6, FL7, FL8, FL9, FL10, FL11, FL12, FL13, FL14
Add hinge support blocks and 1/8"x1/2" balsa for flap L.E. and T.E. shape to flap airfoil
1/8" balsa end rib from scrap
1/8"x1/2" balsa T.E.
Robart medium point hinge location
1/8" balsa end rib from scrap
Hinge support balsa block
1/8"x1/2" balsa L.E. sections


Add 1/8" balsa end rib from scrap
Cut main spar end flush with rib
Add 1/8" balsa end rib from scrap
Cut main spar end flush with rib


Sand flush to ribs shape to form T.E.
Sand flush to ribs to form L.E.
epoxy Robart 1/8" hinge point on top of block



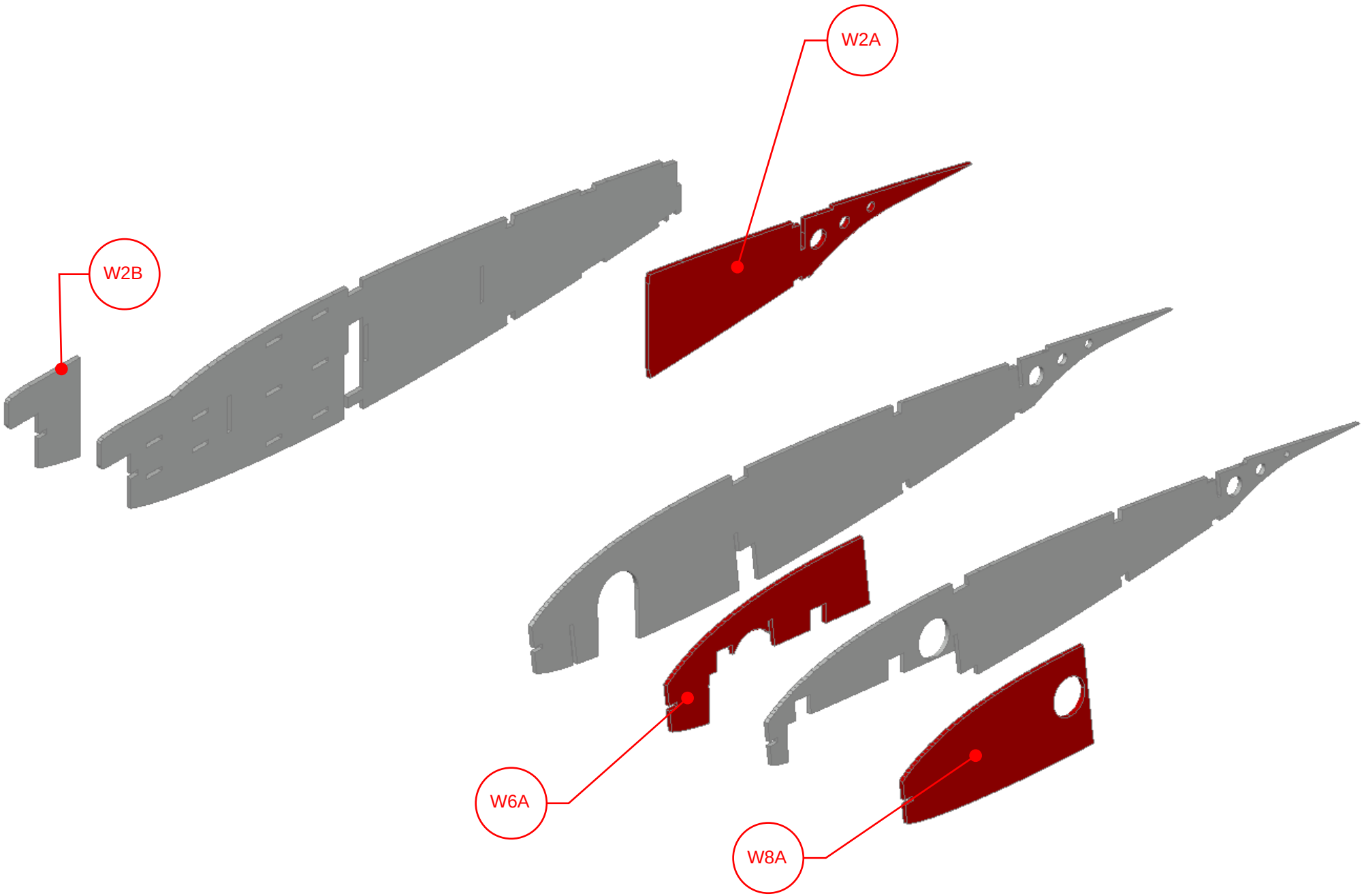
Use parts:
W1, W2, W2A, W2B, W3, W4, W5, W6, W6A, W7, W8, W8A, W9, W10, W19, W21, W23, W24, W25, W28, W29, W30, W31, W32, W33, W34, W35, W36, W37, W42, W43, FPL, WF, WL1, WL2, WB1, WB2, WB3, WB4, WB5, WBB, WBU, LG

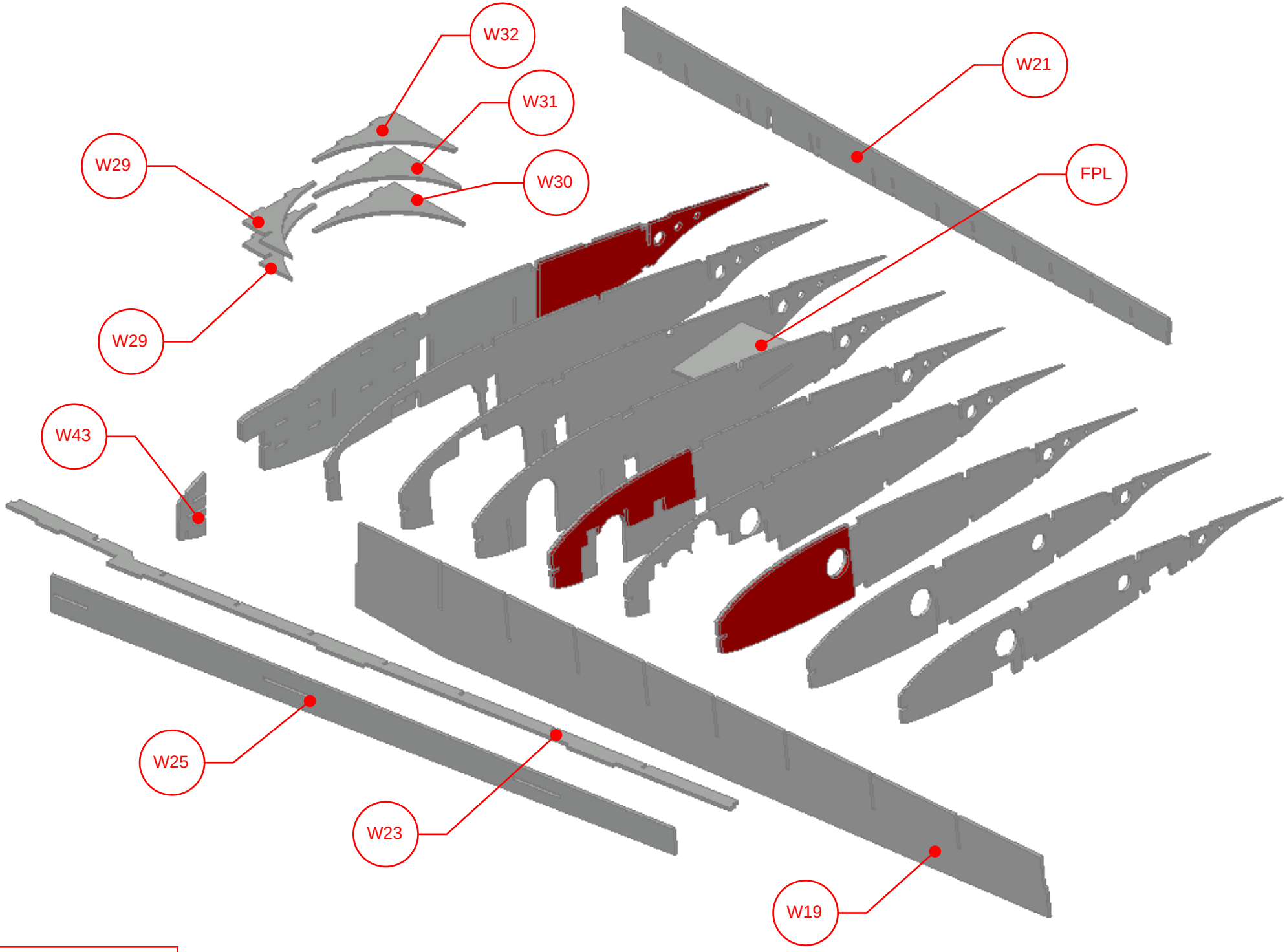
Main spars (1/4"x1/2") can be replaced by hardwood

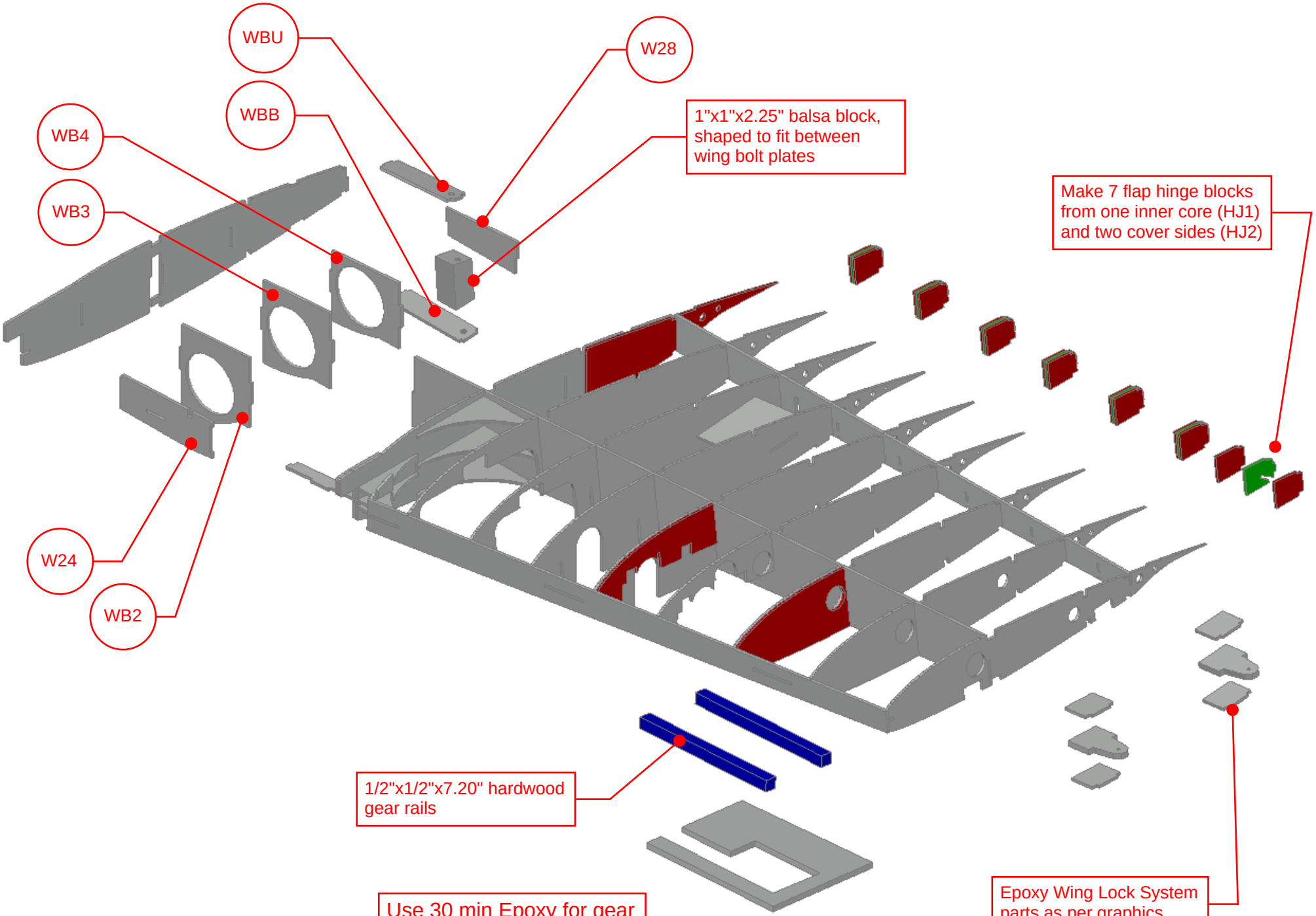
Add flap hinge blocks, (2)1/4"X1/2" balsa main spars, (2)1/4"x1/4" balsa center spars, (2)1/4"x1/8" balsa rear spars, 3/32"x1" balsa flap cover support, 1/2" balsa L.E. other scrap balsa parts

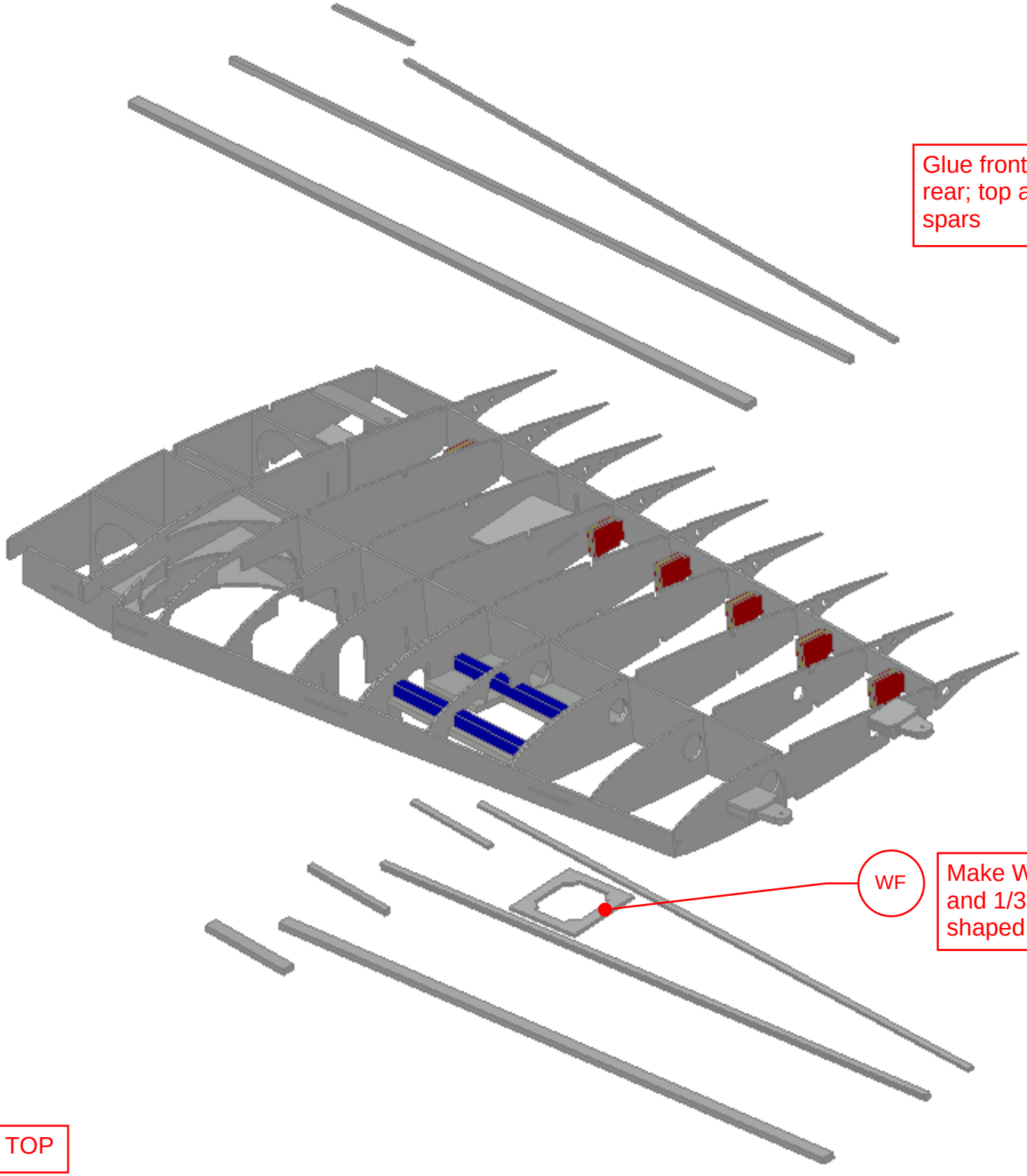
VIEW FROM TOP

Glue doublers at ribs W2, W6 and W8

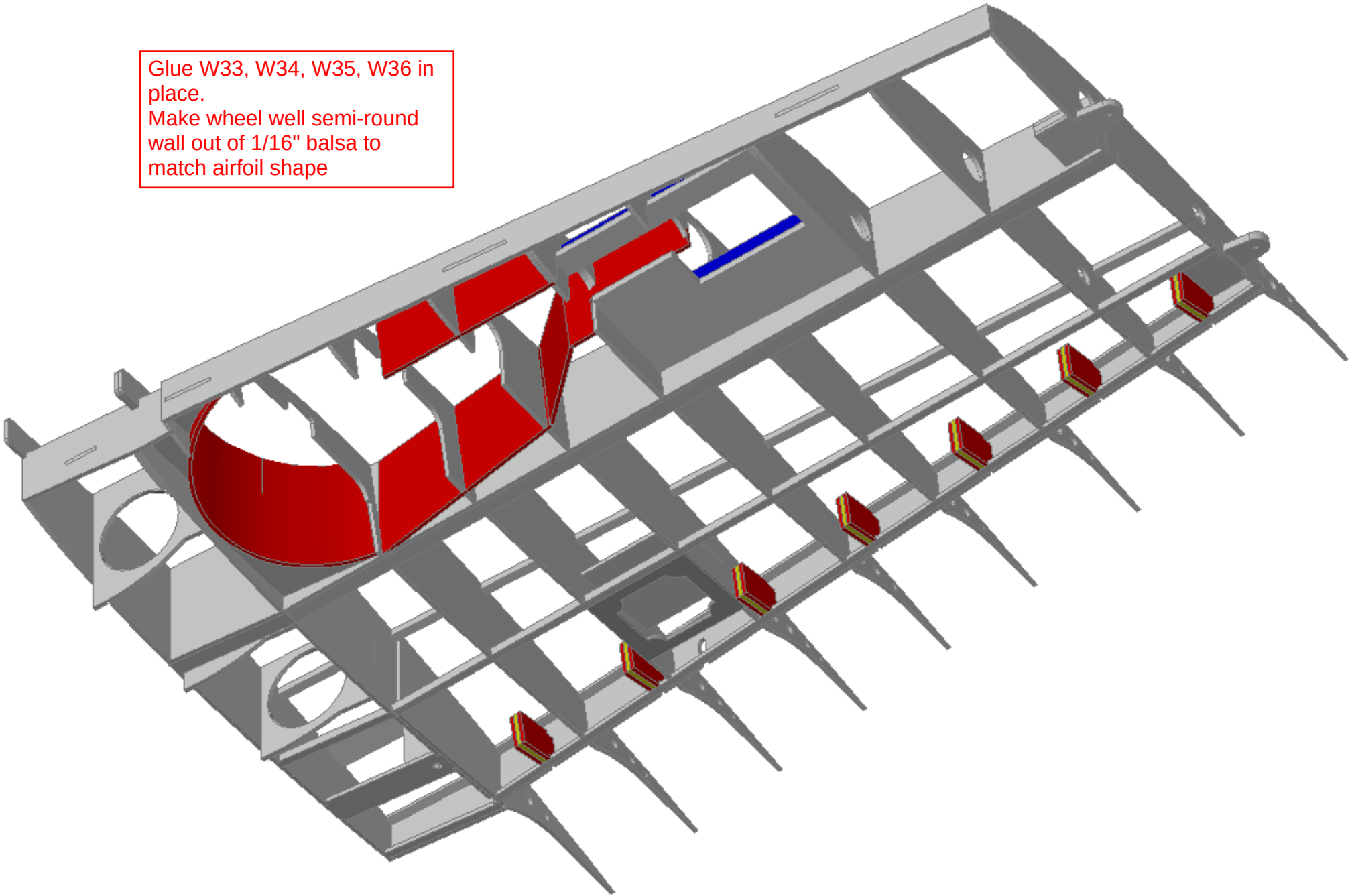



W32
W31
W29
W30
W21
FPL
W29
W43
W25
W23
W19
VIEW FROM TOP

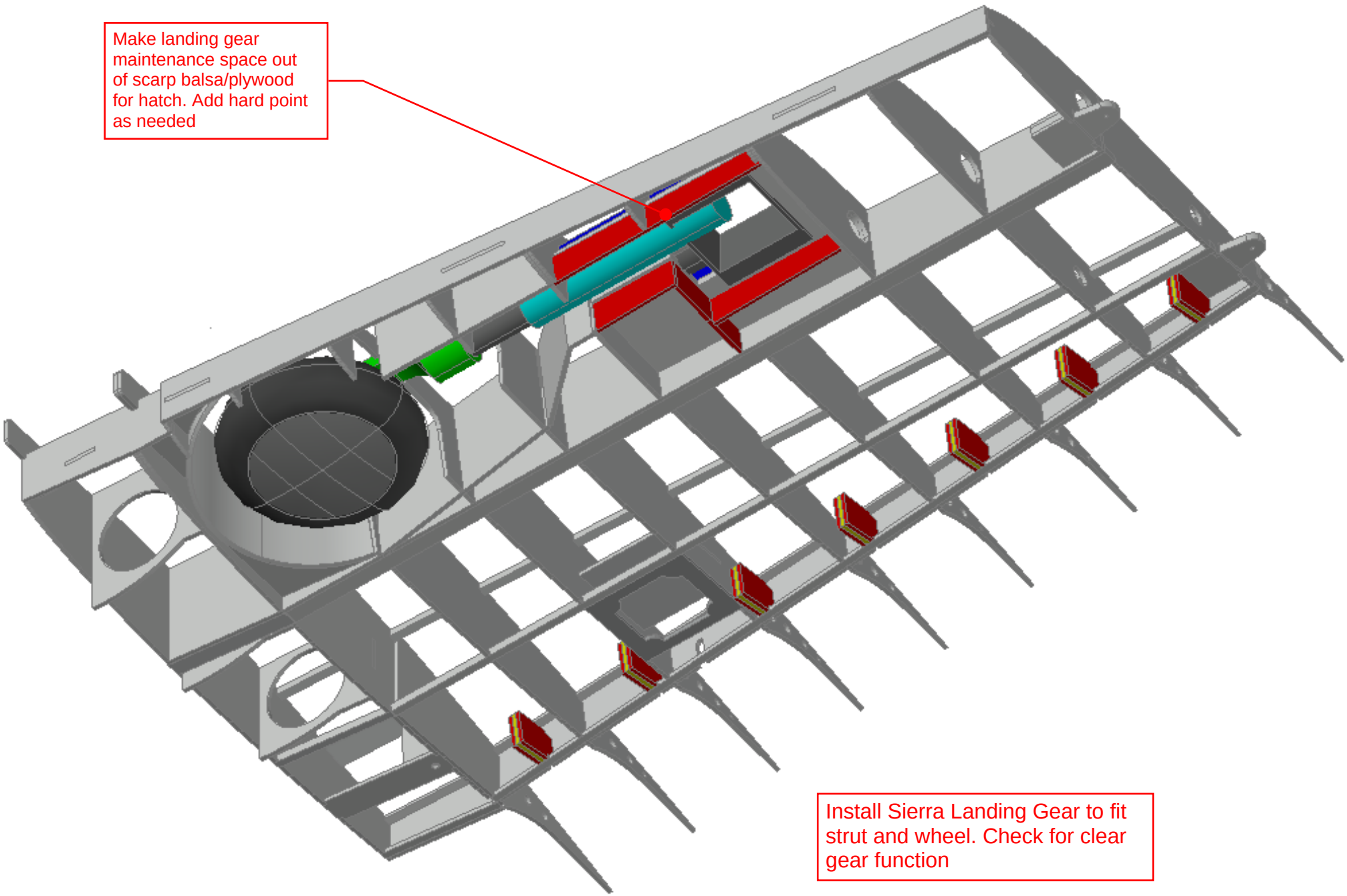

WBU
W28
WBB
1"x1"x2.25" balsa block, shaped to fit between wing bolt plates
WB4
WB3
Make 7 flap hinge blocks from one inner core (HJ1) and two cover sides (HJ2)
W24
WB2
1/2"x1/2"x7.20" hardwood gear rails
Use 30 min Epoxy for gear rails and landing gear plate to the wing structure
Epoxy Wing Lock System parts as per graphics
VIEW FROM TOP

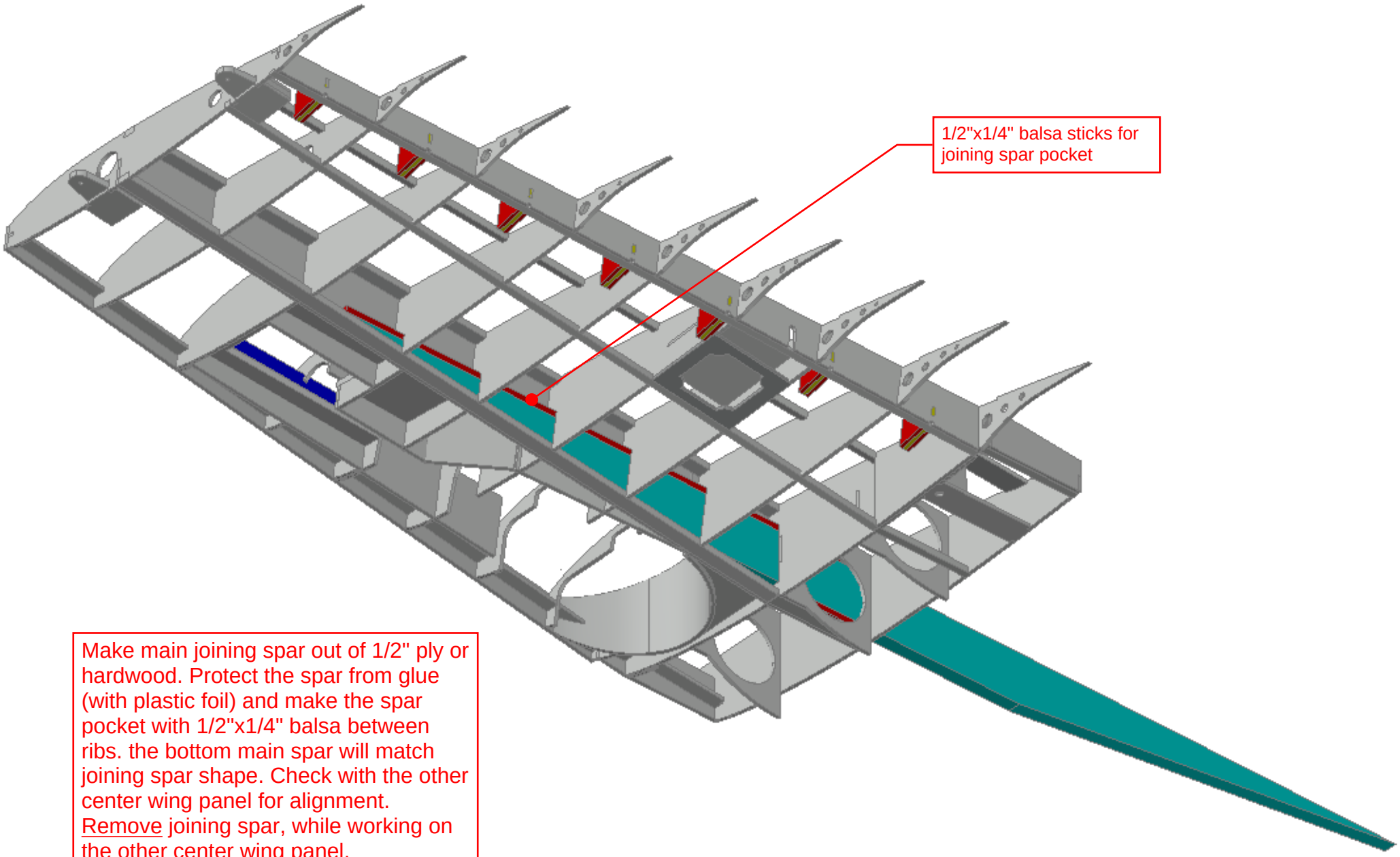

Glue front, center, and rear; top and bottom spars
WF
Make WF from 3/32" balsa and 1/32" ply parts, shaped to airfoil
VIEW FROM TOP

Glue W33, W34, W35, W36 in place.
Make wheel well semi-round wall out of 1/16" balsa to match airfoil shape



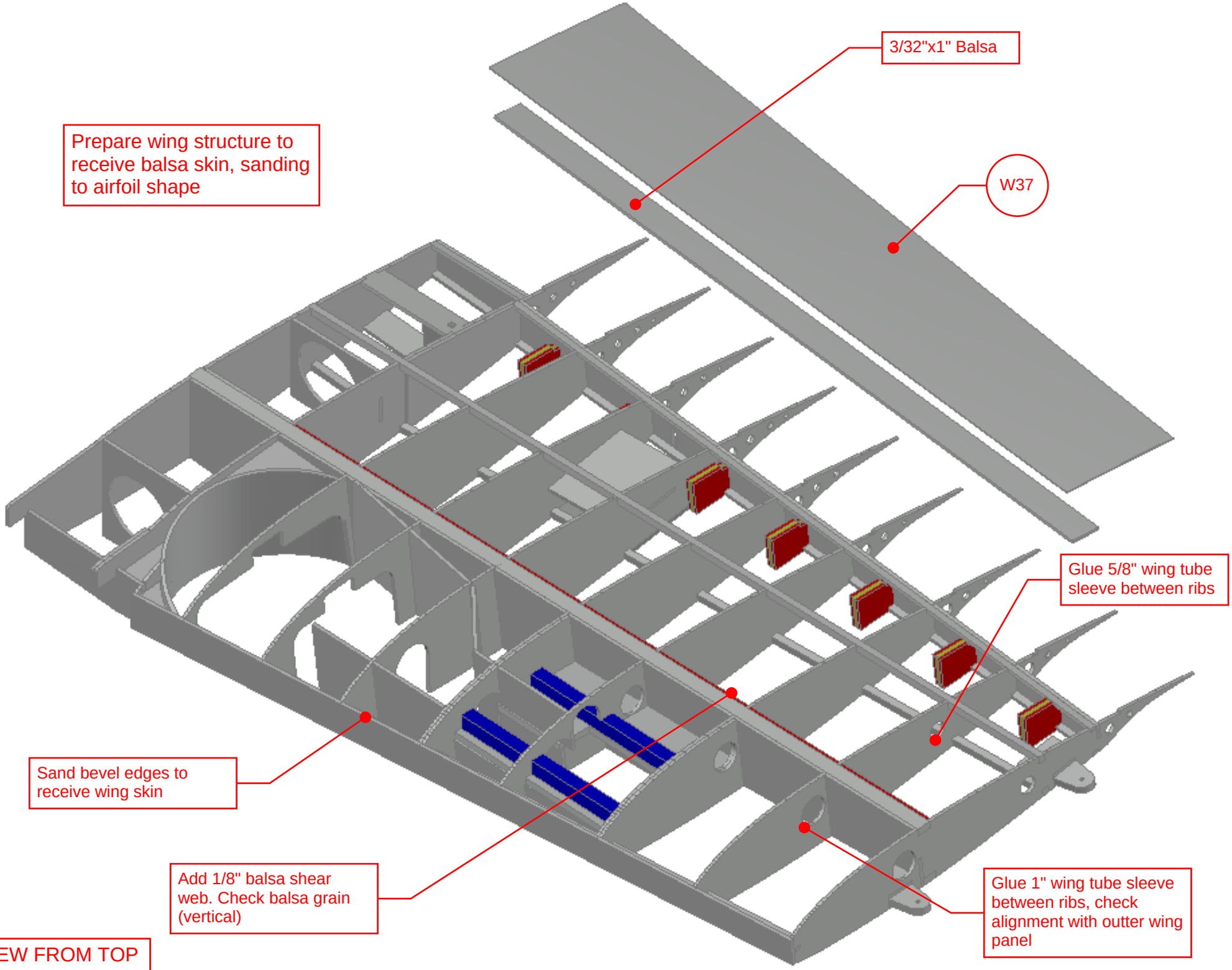
VIEW FROM BOTTOM

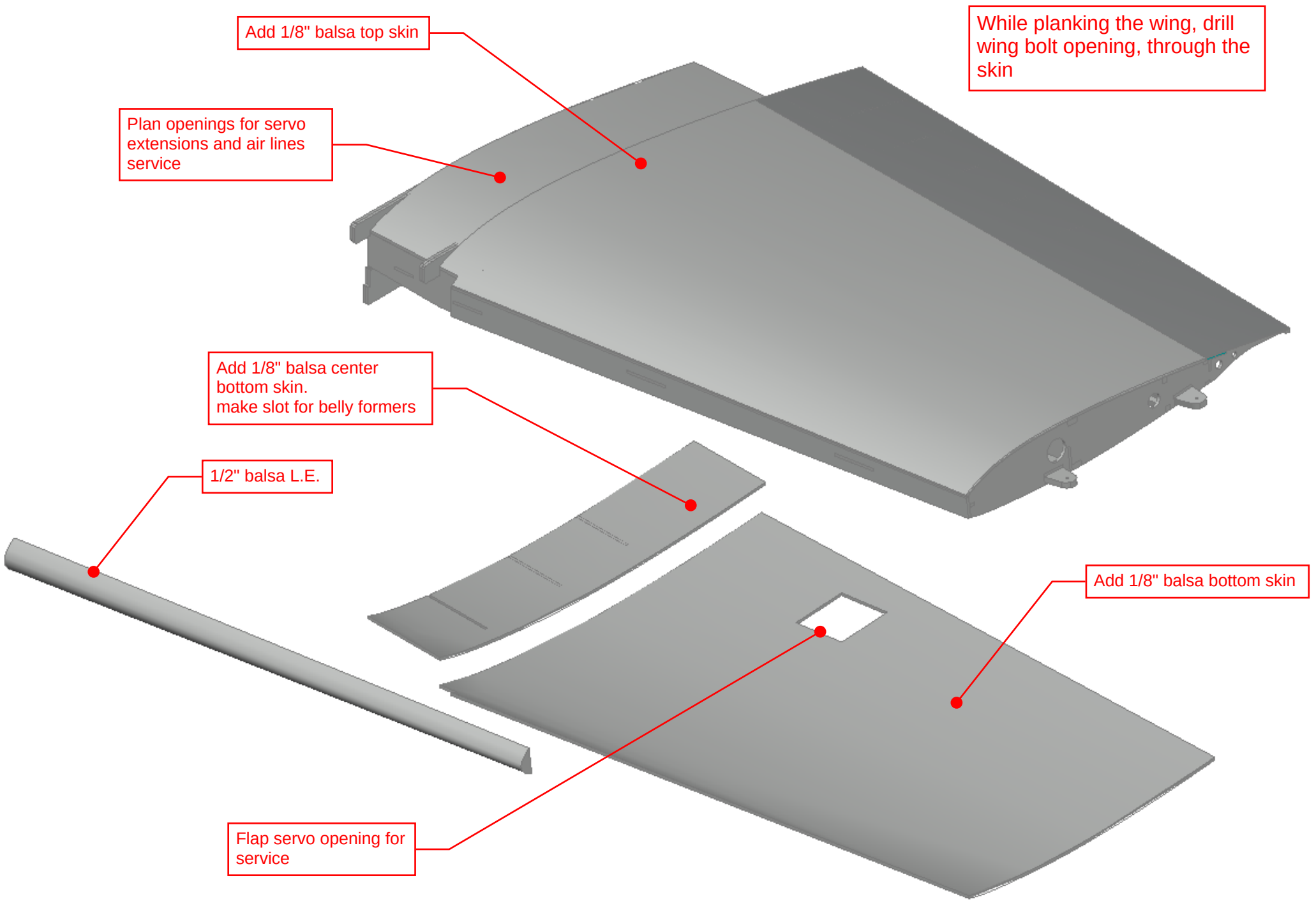

Make landing gear maintenance space out of scarp balsa/plywood for hatch. Add hard point as needed
Install Sierra Landing Gear to fit strut and wheel. Check for clear gear function
VIEW FROM BOTTOM



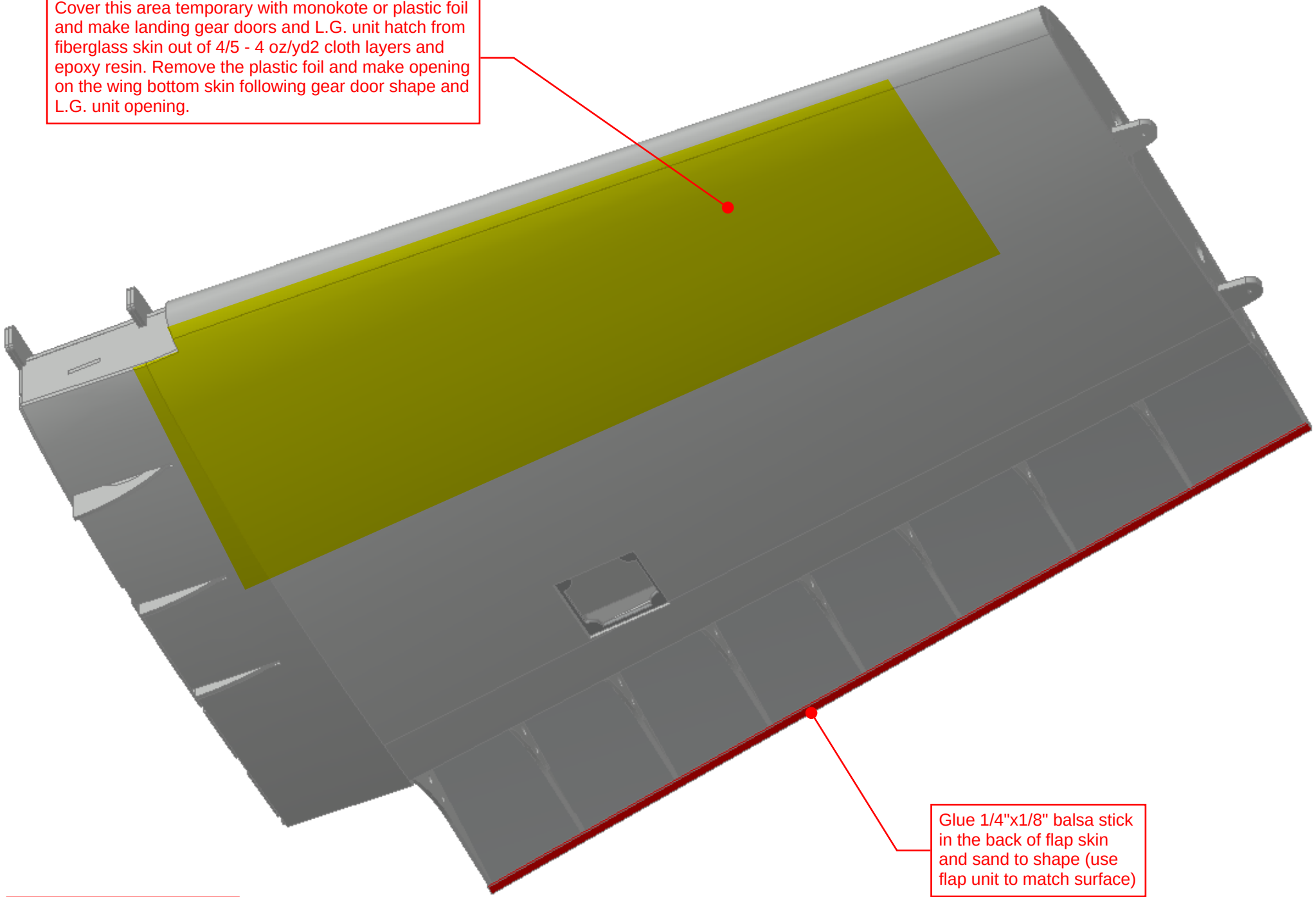
Make main joining spar out of 1/2" ply or hardwood. Protect the spar from glue (with plastic foil) and make the spar pocket with 1/2"x1/4" balsa between ribs. the bottom main spar will match joining spar shape. Check with the other center wing panel for alignment. Remove joining spar, while working on the other center wing panel.

VIEW FROM BOTTOM


Prepare wing structure to receive balsa skin, sanding to airfoil shape
3/32"x1" Balsa
W37
Glue 5/8" wing tube sleeve between ribs
Sand bevel edges to receive wing skin
Add 1/8" balsa shear web. Check balsa grain (vertical)
Glue 1" wing tube sleeve between ribs, check alignment with outter wing panel
VIEW FROM TOP


Add 1/8" balsa top skin
While planking the wing, drill wing bolt opening, through the skin
Plan openings for servo extensions and air lines service
Add 1/8" balsa center bottom skin.
make slot for belly formers
1/2" balsa L.E.
Add 1/8" balsa bottom skin
Flap servo opening for service
VIEW FROM TOP

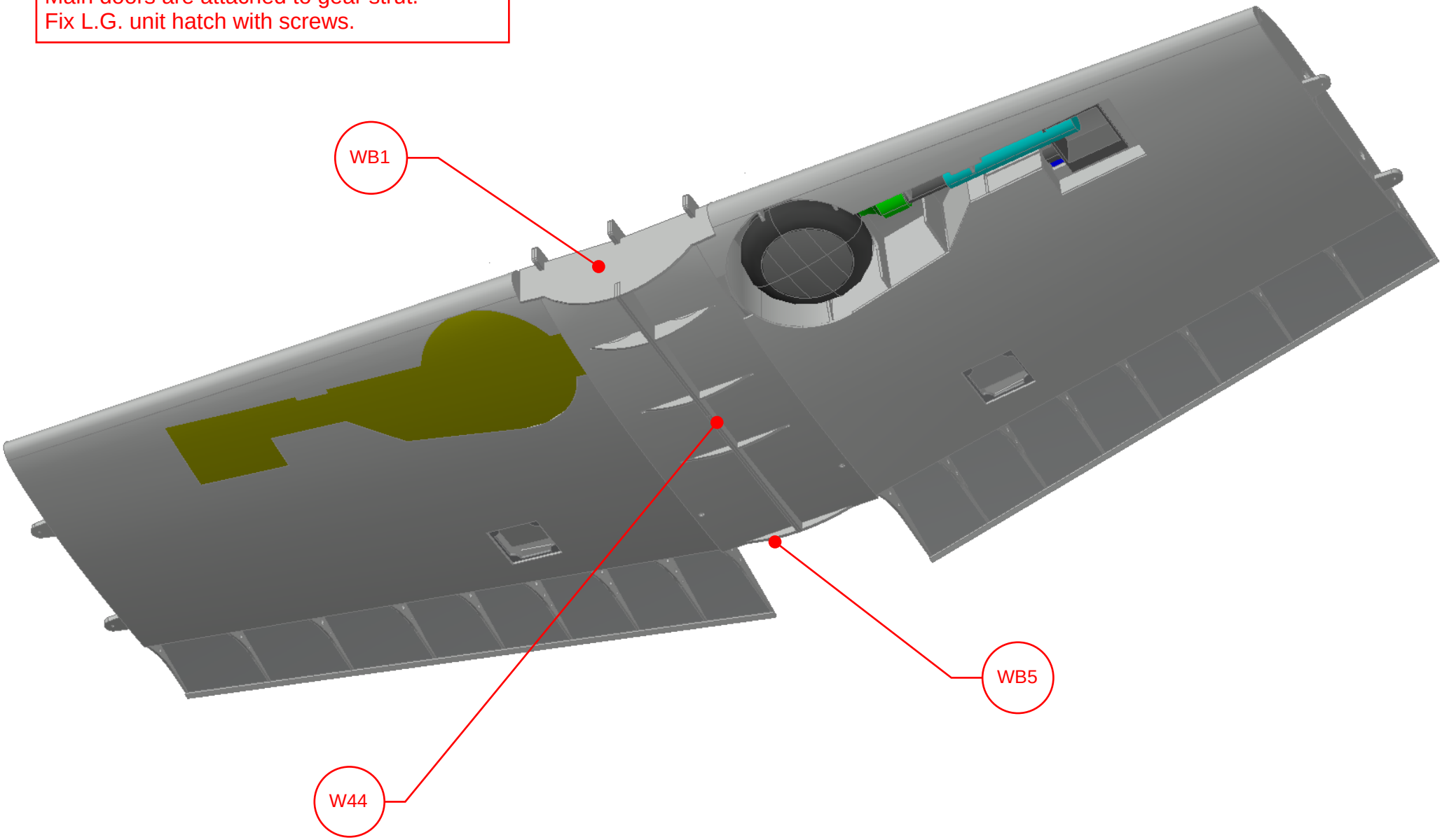
Cover this area temporary with monokote or plastic foil and make landing gear doors and L.G. unit hatch from fiberglass skin out of 4/5 - 4 oz/yd2 cloth layers and epoxy resin. Remove the plastic foil and make opening on the wing bottom skin following gear door shape and L.G. unit opening.



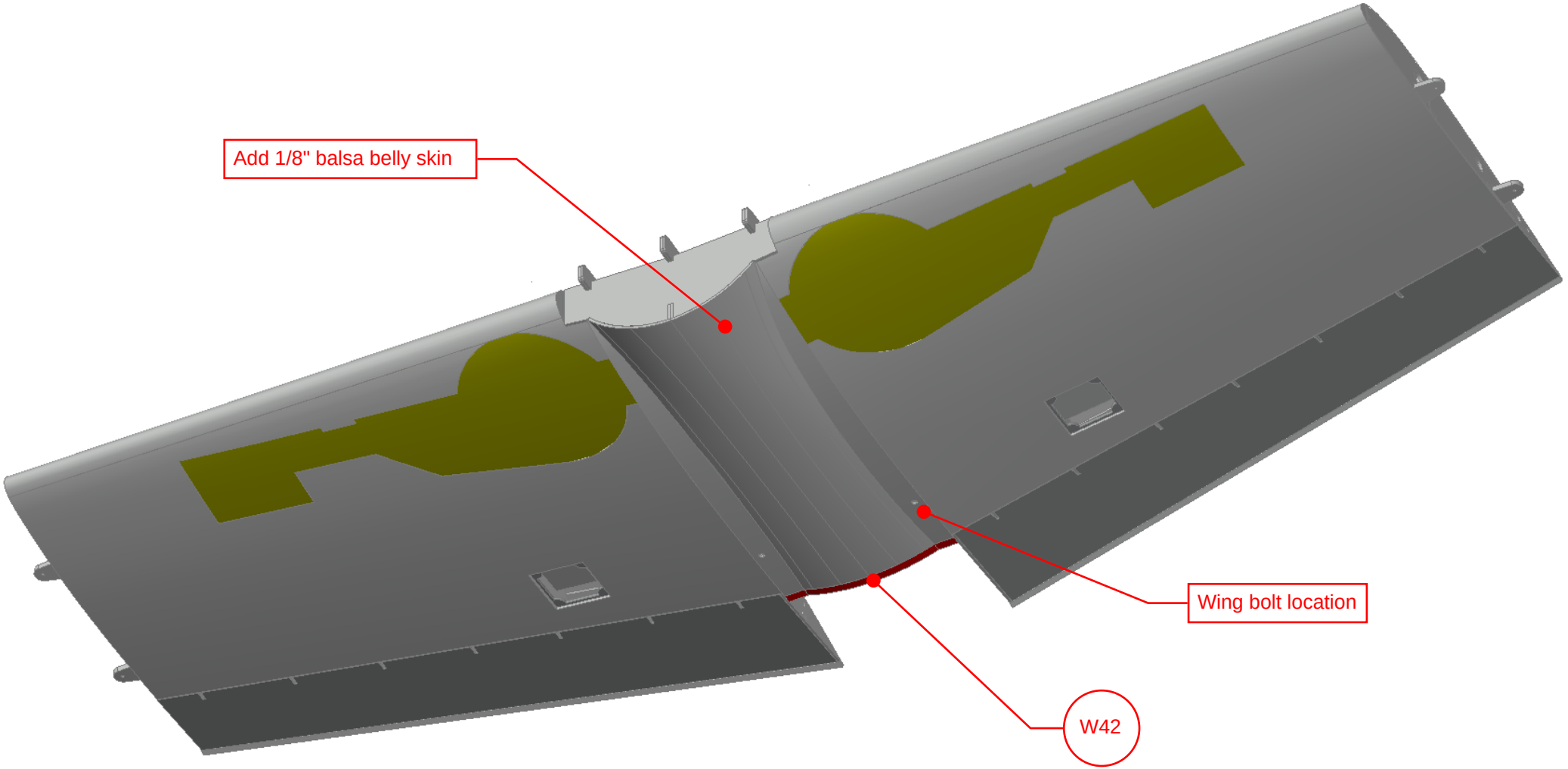
Glue 1/4"x1/8" balsa stick in the back of flap skin and sand to shape (use flap unit to match surface)

VIEW FROM BOTTOM

Epoxy joining spar on both halves center wing panels.
Cut fiberglass skin to match open cut under wing for landing gear area and make L.G. doors.
Inner doors have piano hinge to rib 2.
Main doors are attached to gear strut.
Fix L.G. unit hatch with screws.

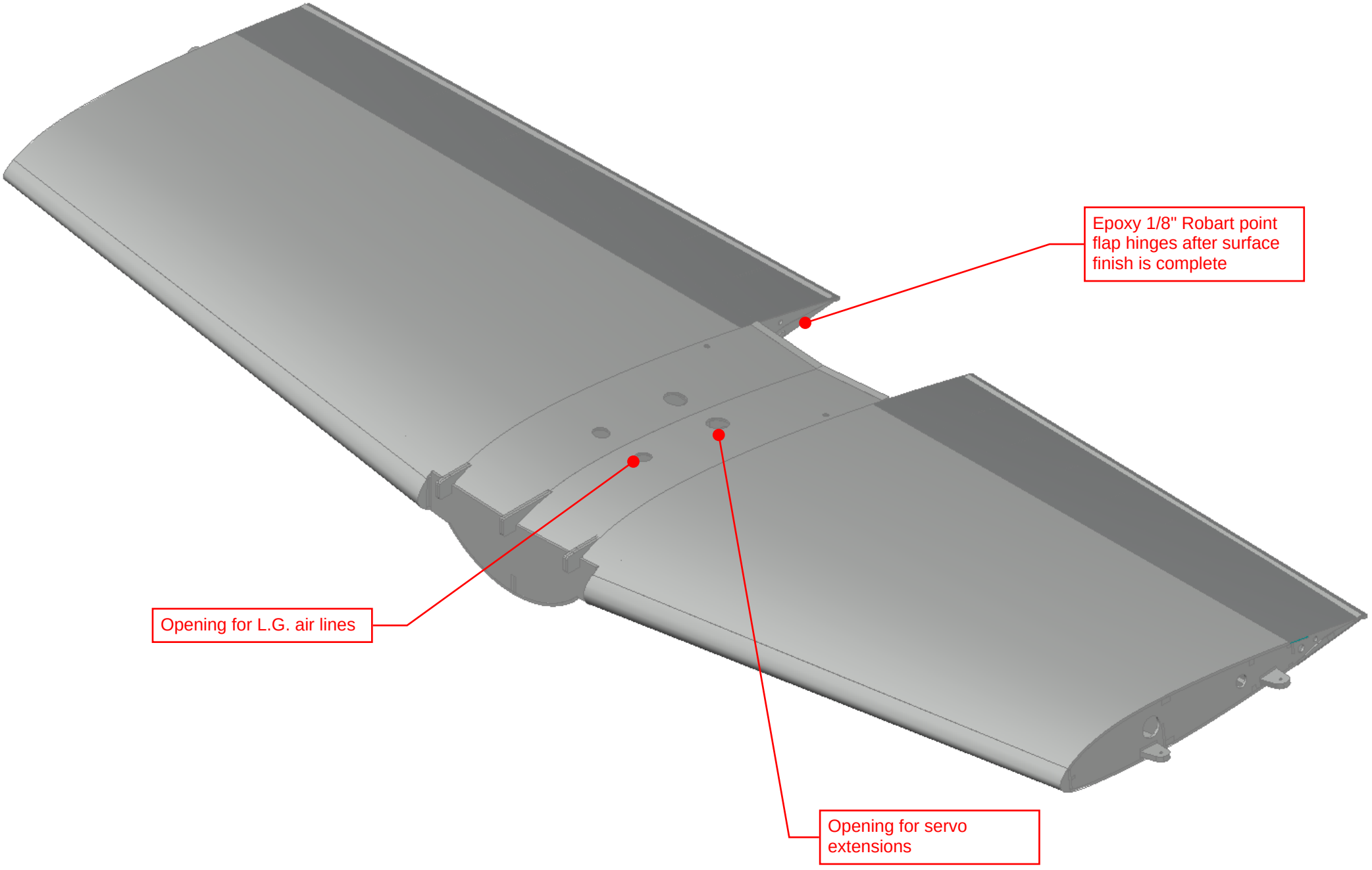


VIEW FROM BOTTOM

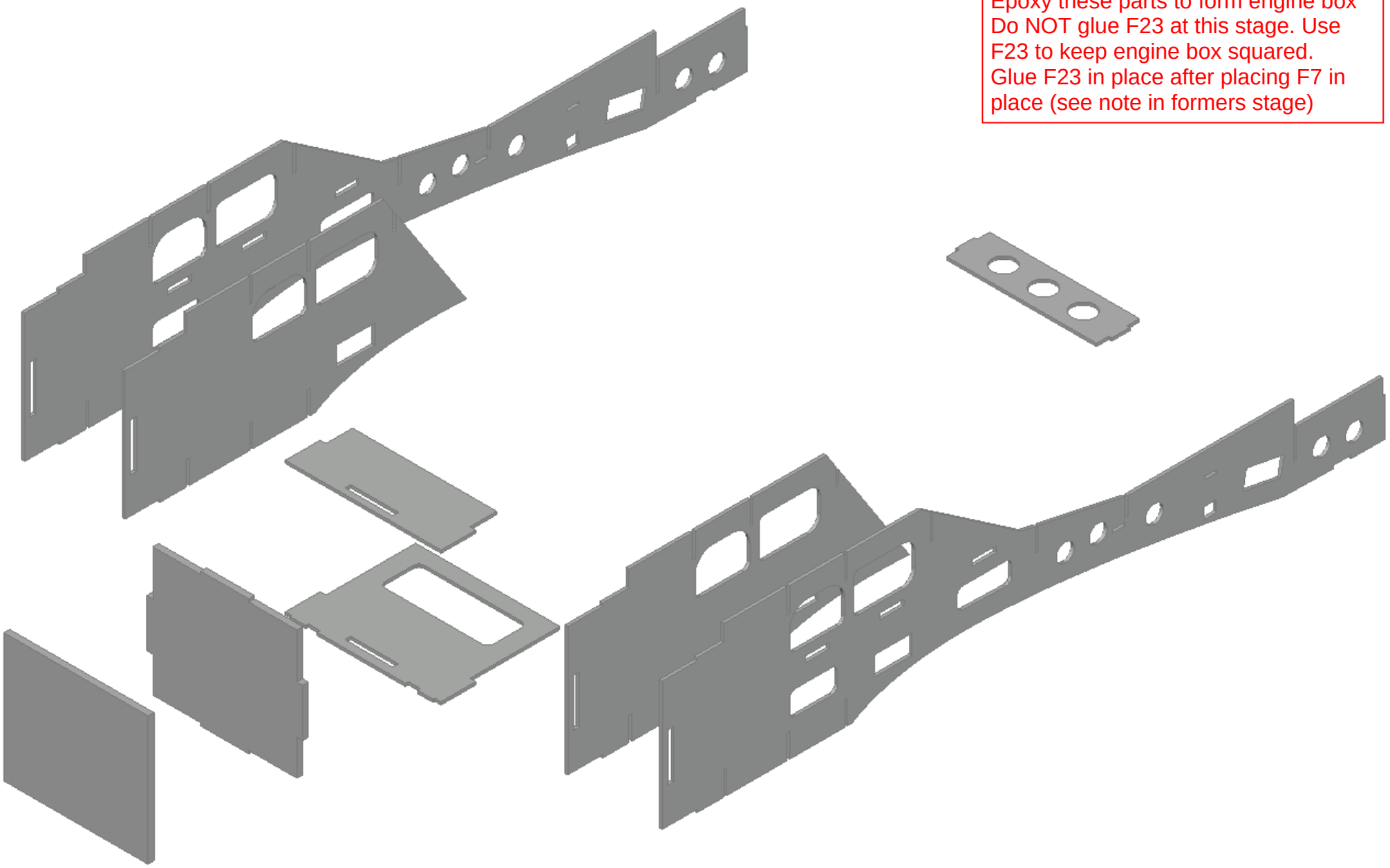


Check fuselage side view plan for sand shape of W42 for easy removable wing out of the fuselage

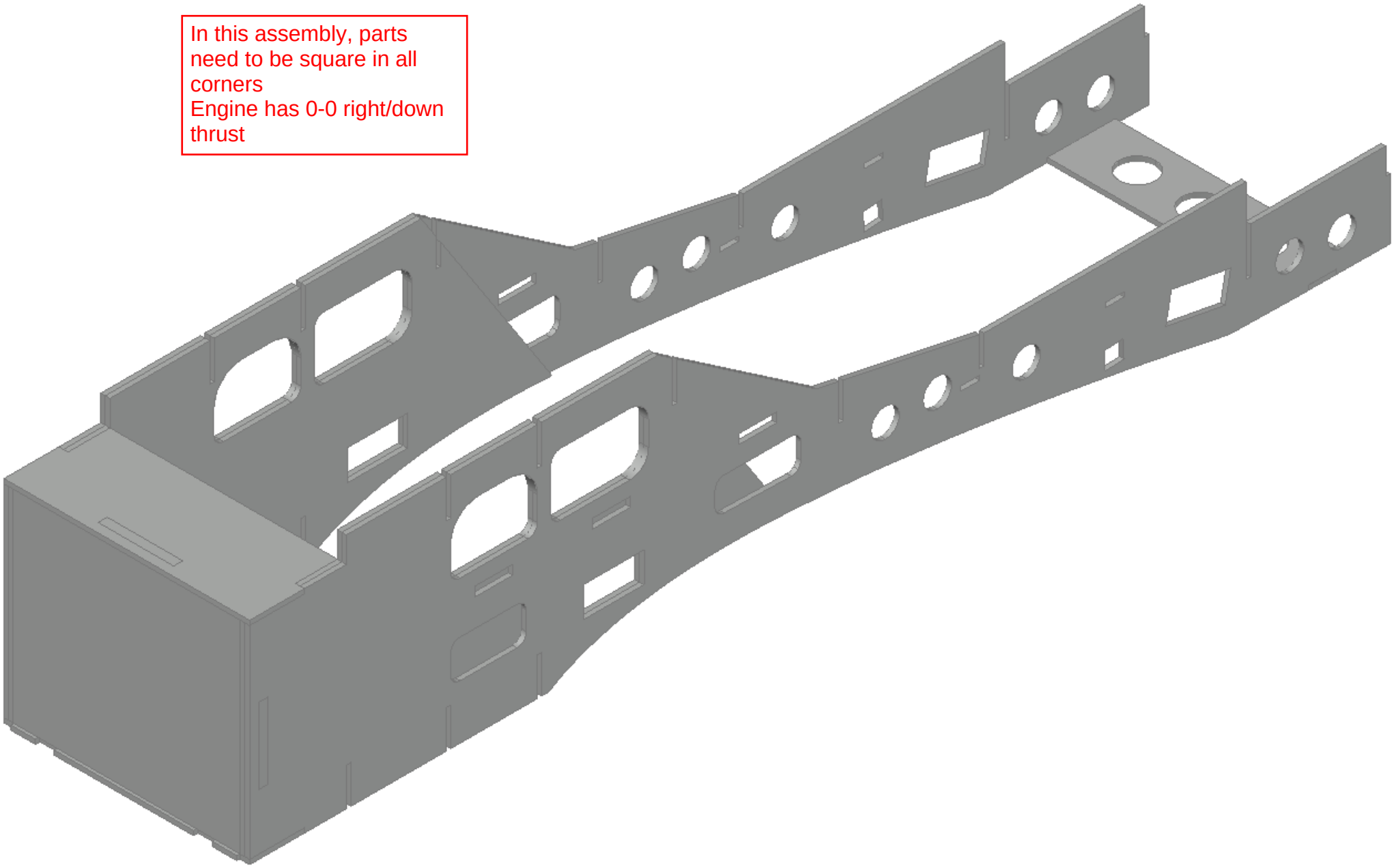
VIEW FROM BOTTOM

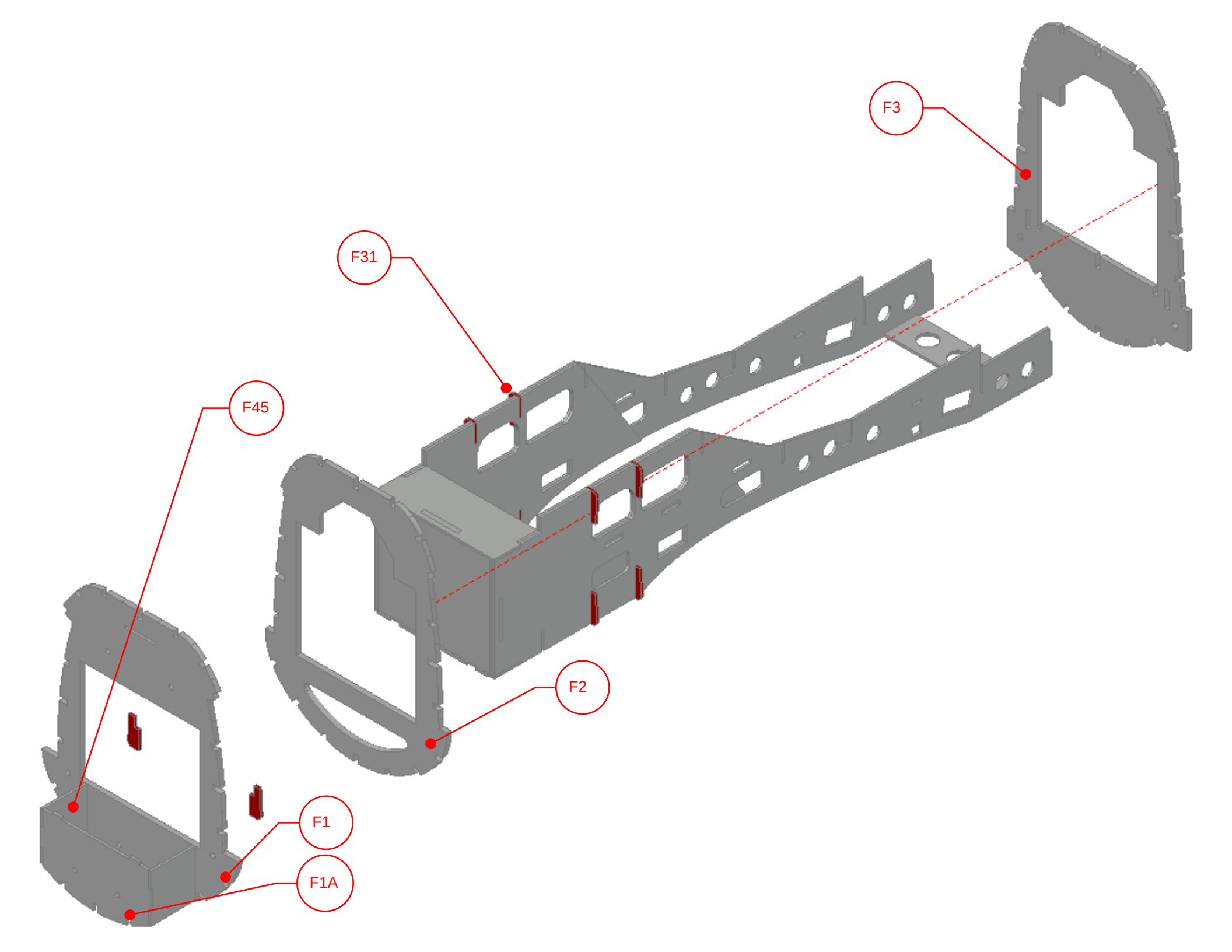

Epoxy 1/8" Robart point flap hinges after surface finish is complete
Opening for L.G. air lines
Opening for servo extensions

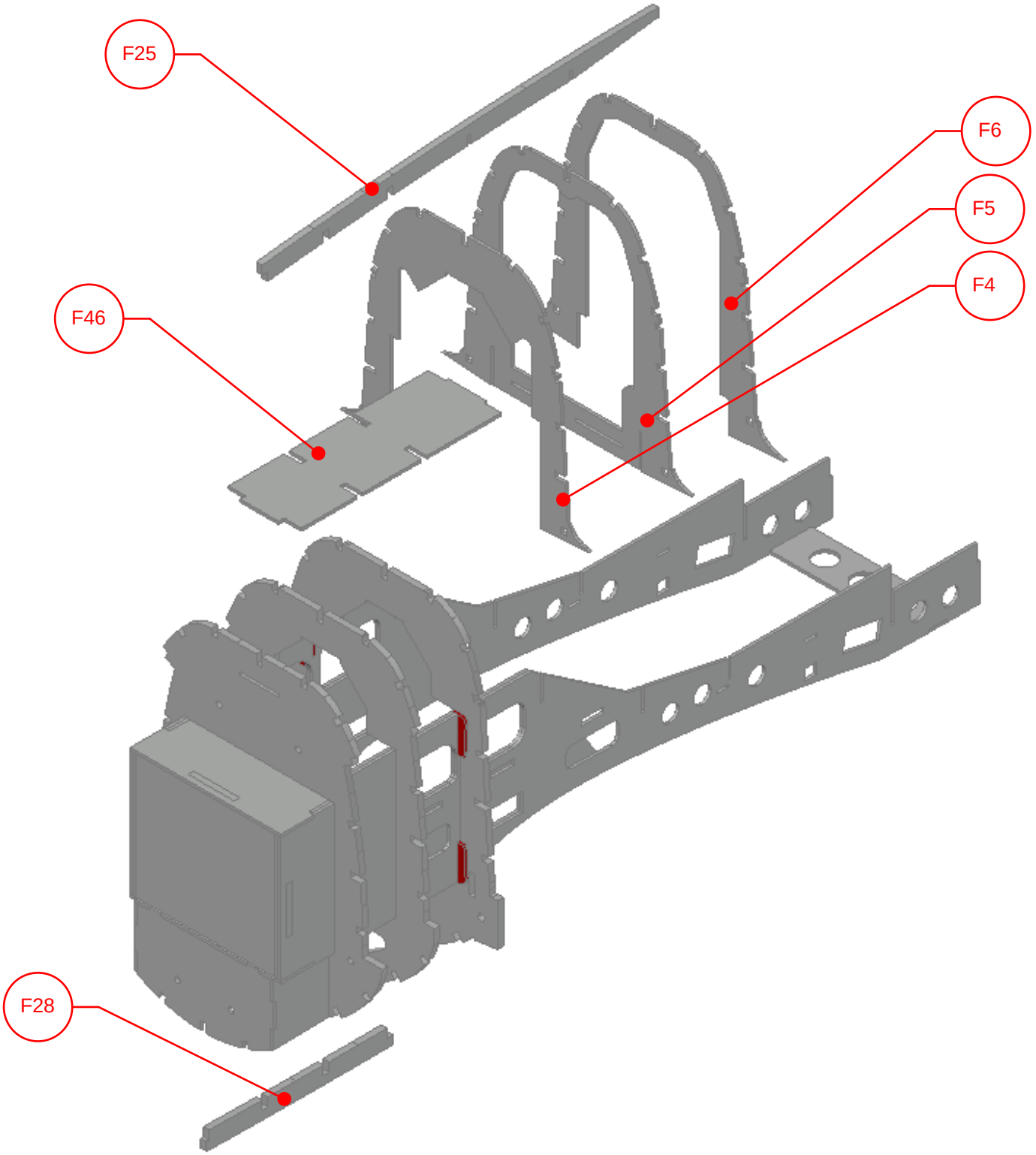
Use parts:
F19, F20, F21, F22, F23, FW1, FW2
Epoxy these parts to form engine box
Do NOT glue F23 at this stage. Use F23 to keep engine box squared.
Glue F23 in place after placing F7 in place (see note in formers stage)

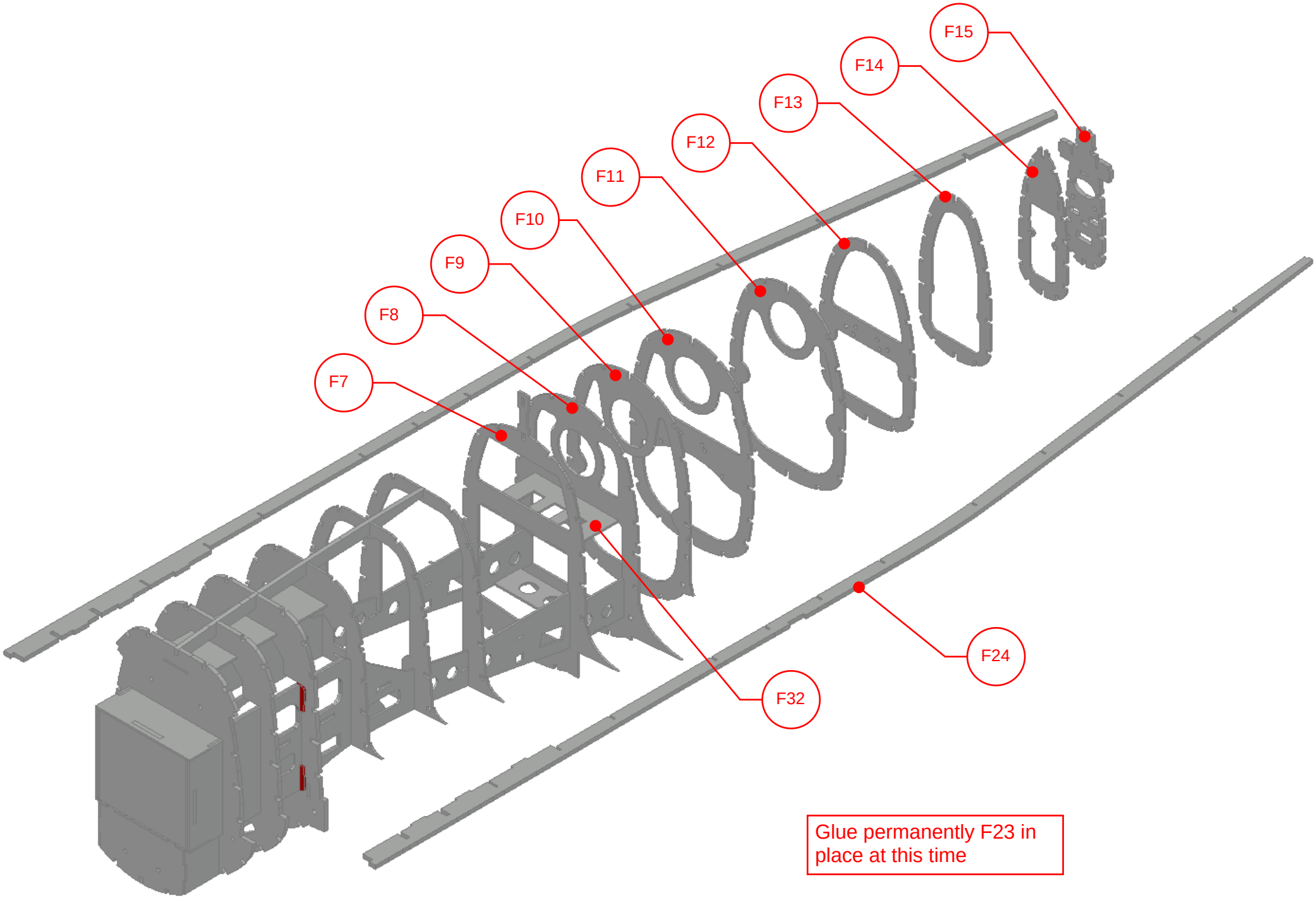


In this assembly, parts need to be square in all corners
Engine has 0-0 right/down thrust



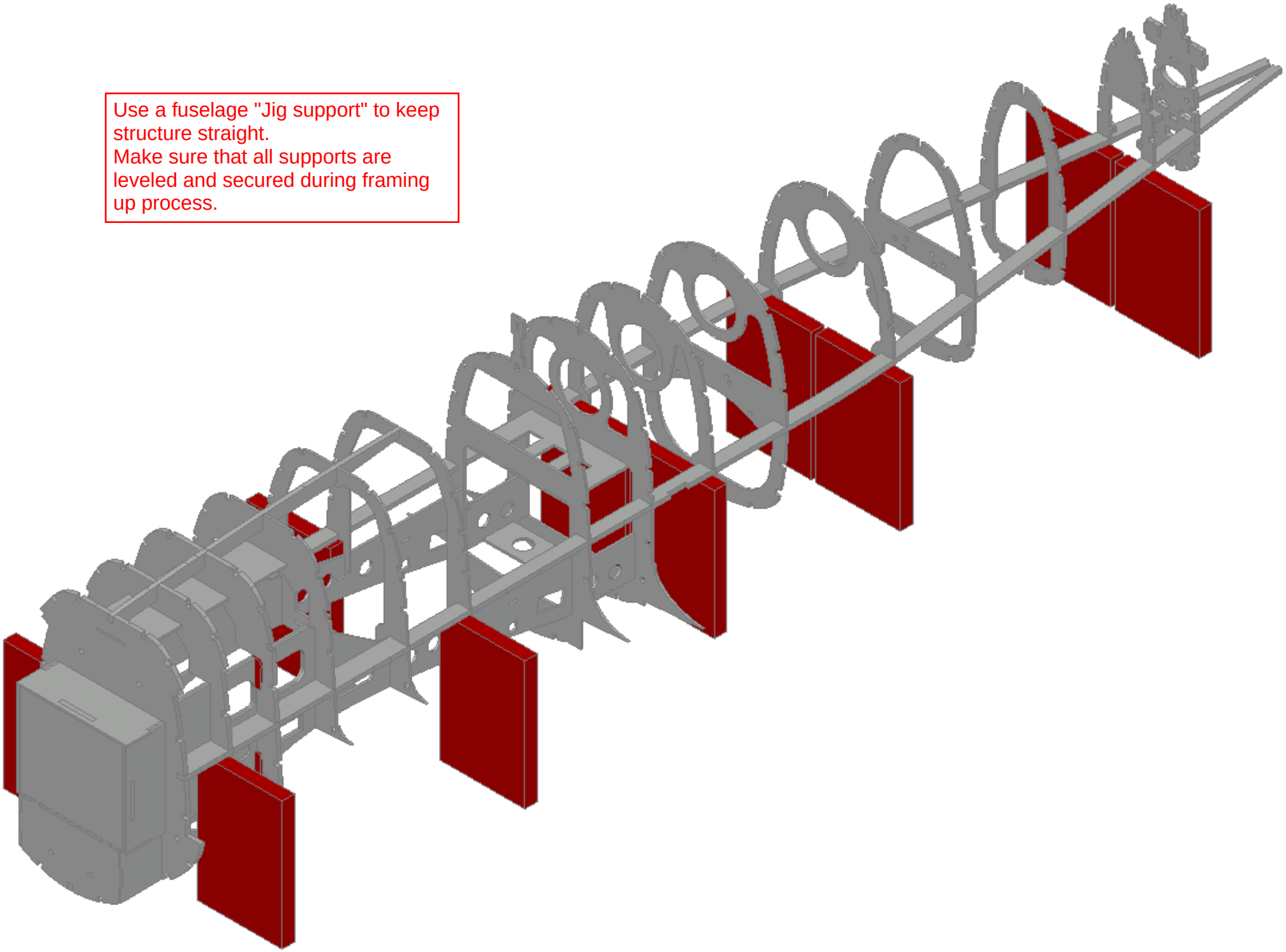

F3
F31
F45
F2
F1
F1A

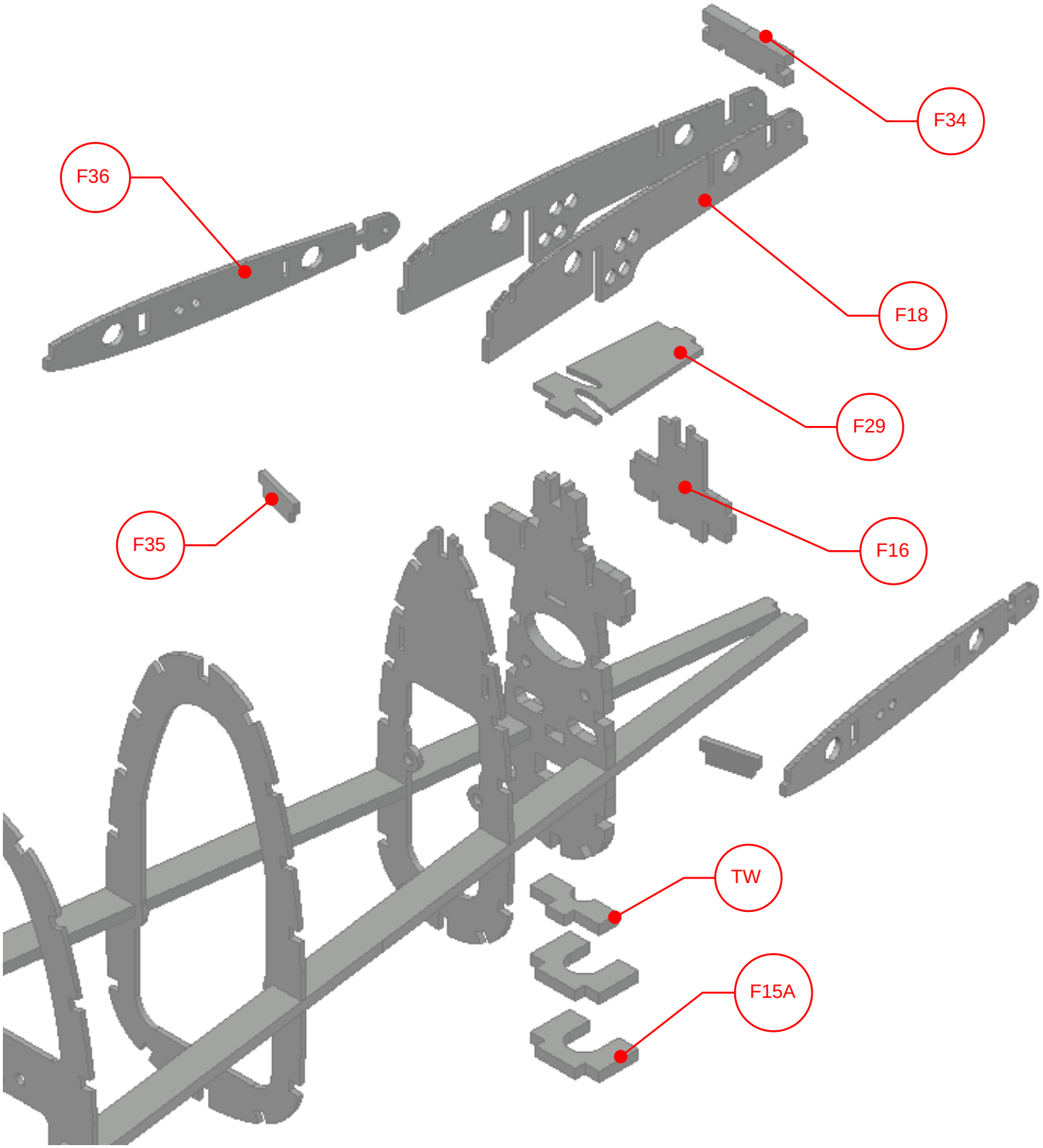

F25
F6
F5
F4
F46
F28

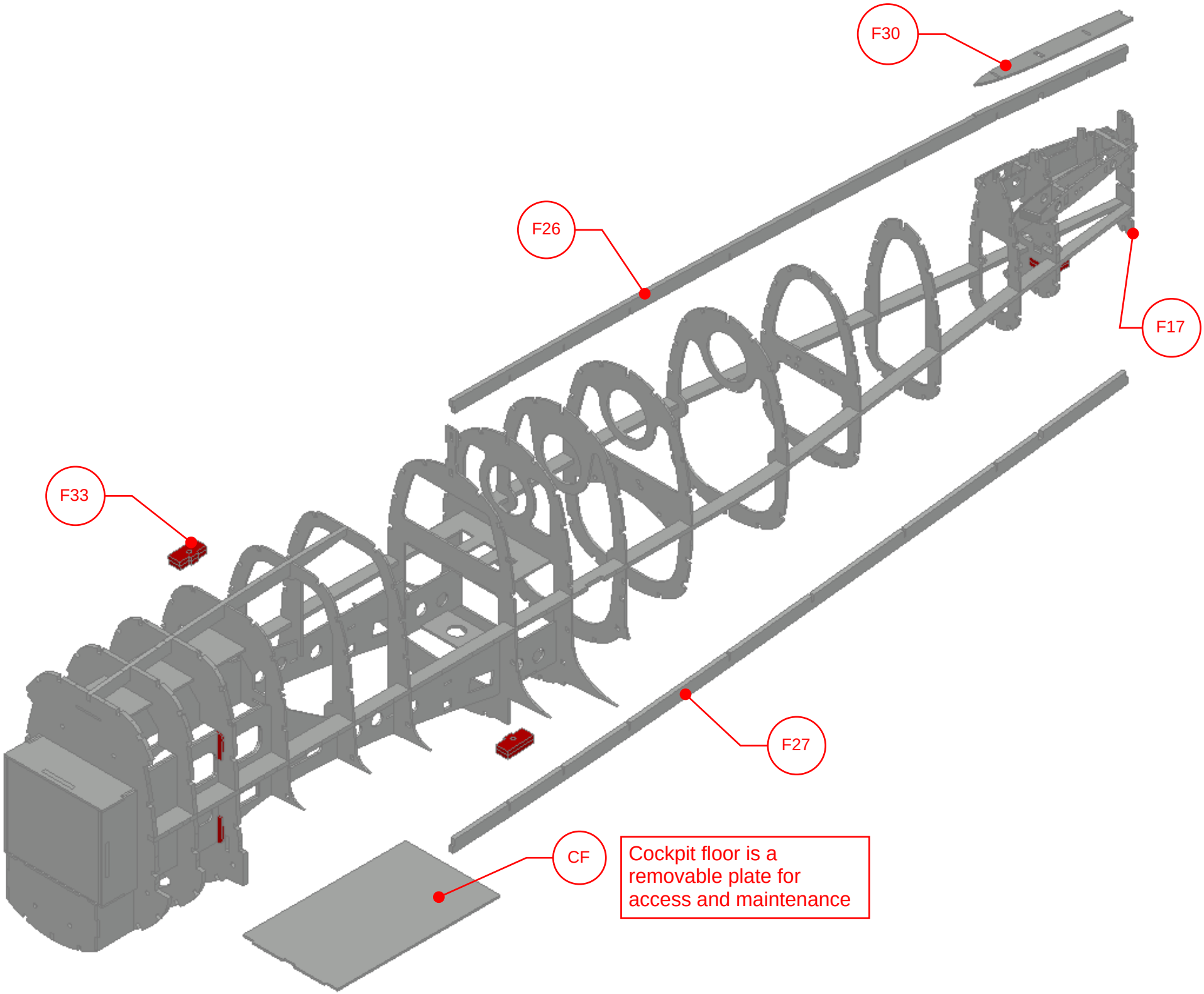


Glue permanently F23 in place at this time

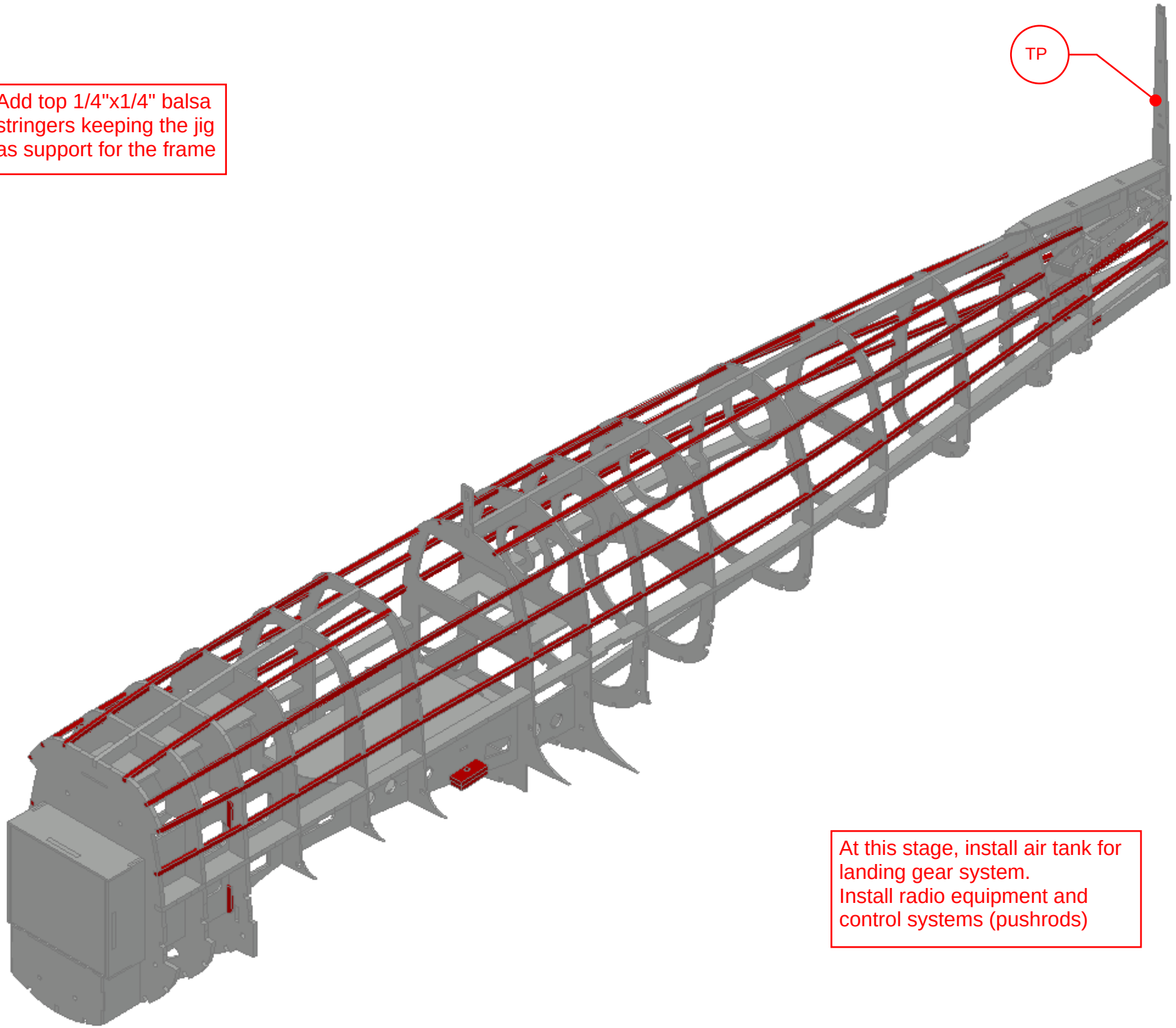
Use a fuselage "Jig support" to keep structure straight.
Make sure that all supports are leveled and secured during framing up process.



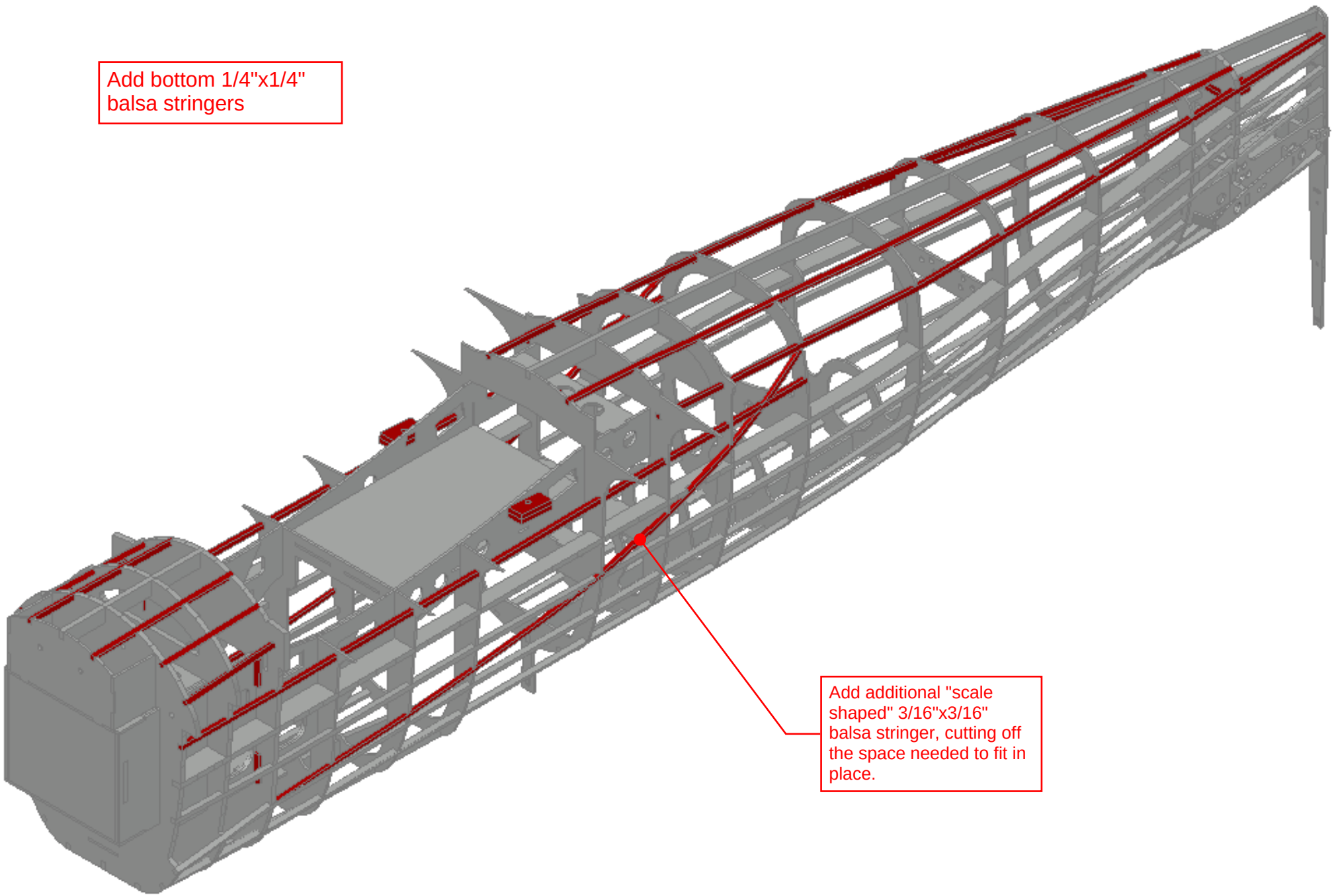

F34
F36
F18
F29
F35
F16
TW
F15A

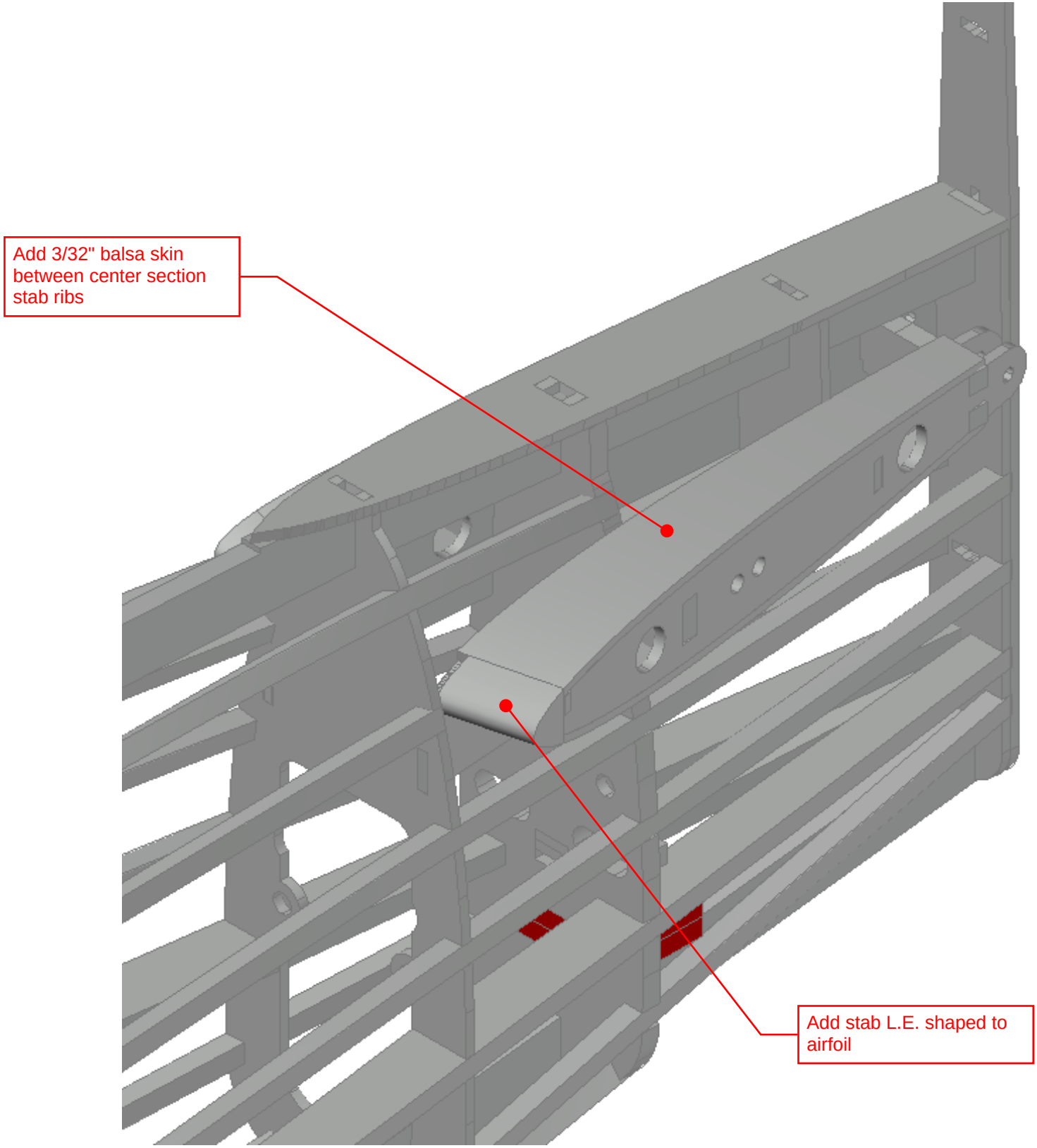

F30
F26
F17
F33
F27
CF
Cockpit floor is a removable plate for access and maintenance

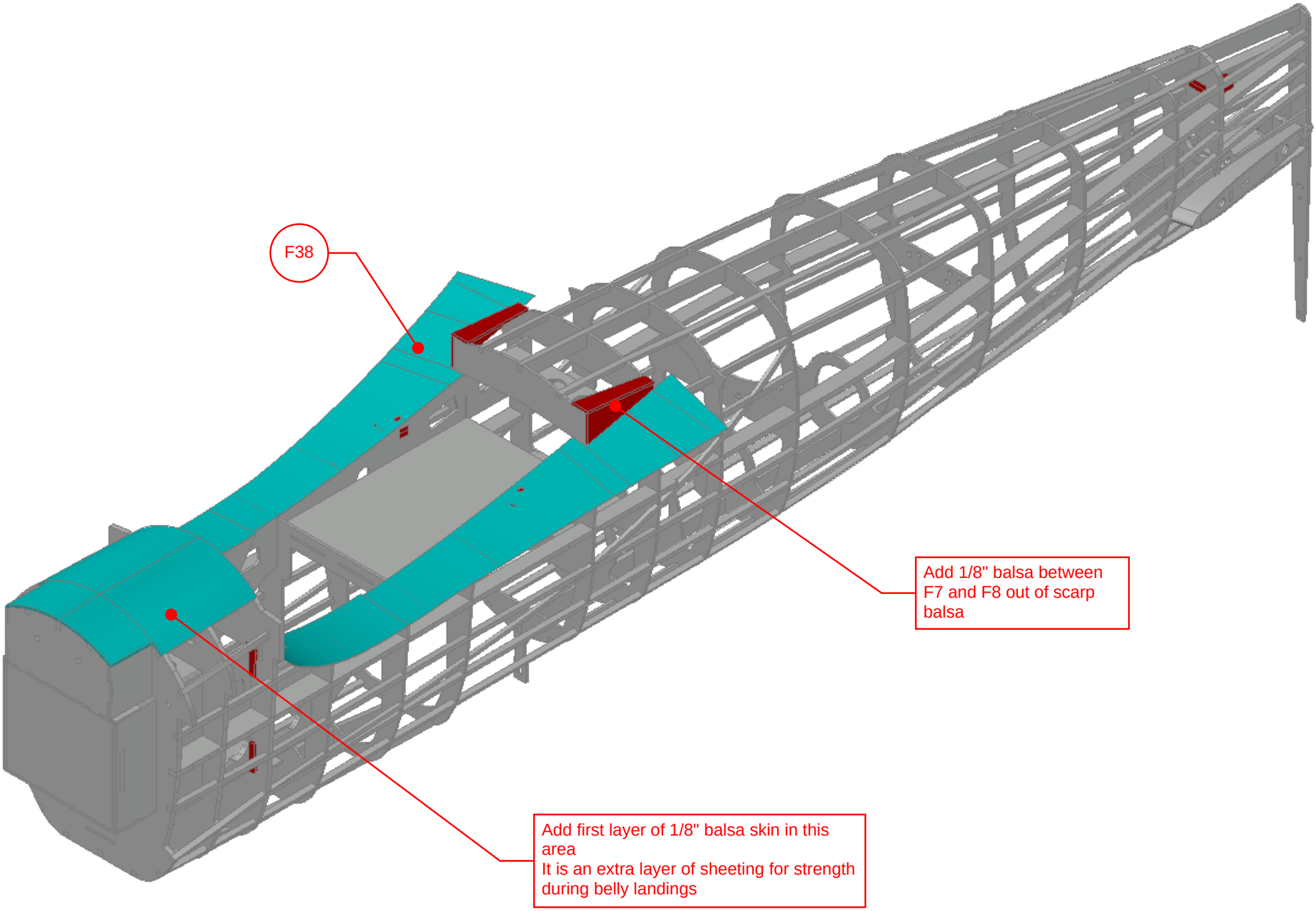
Add top 1/4"x1/4" balsa stringers keeping the jig as support for the frame

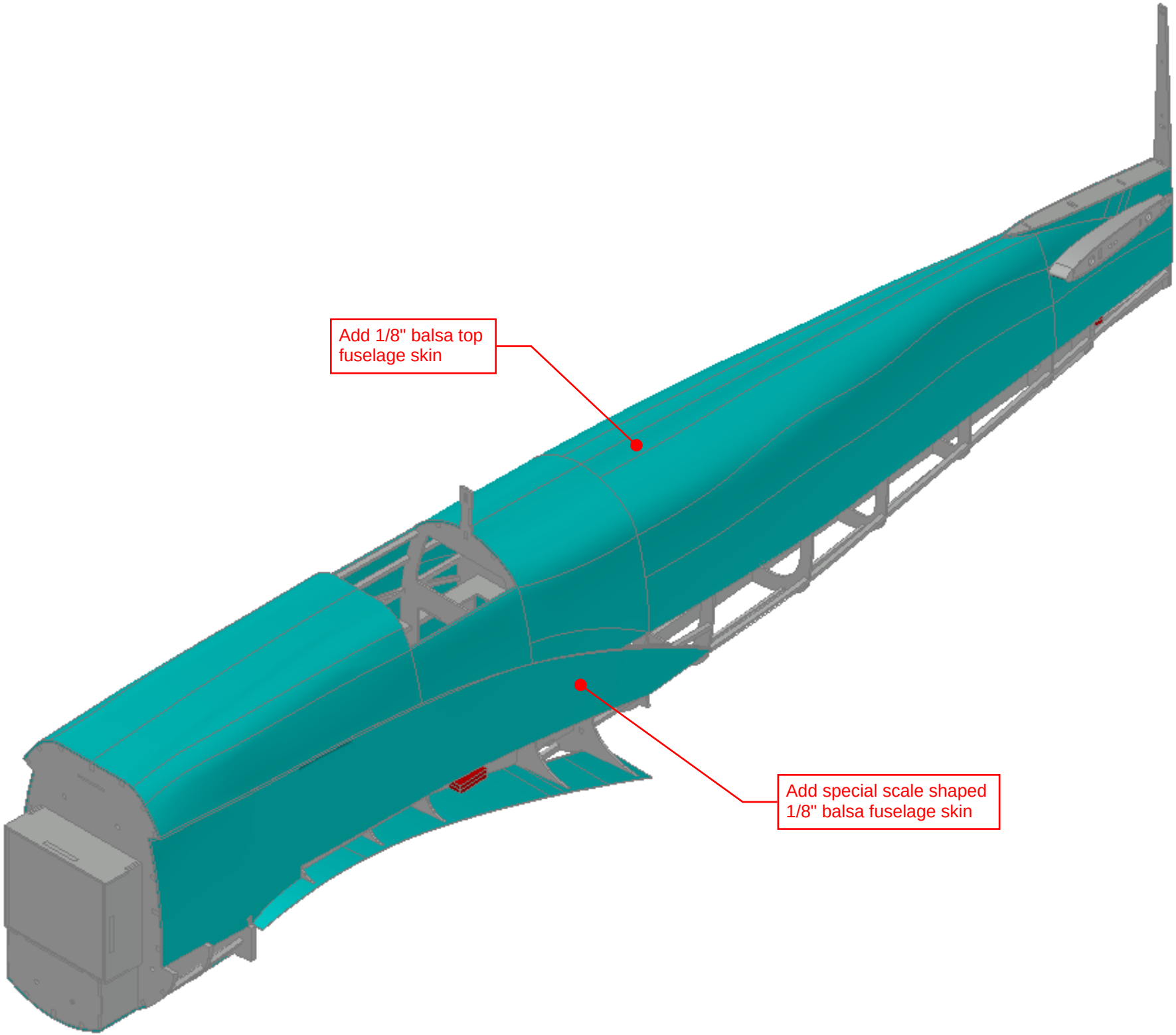


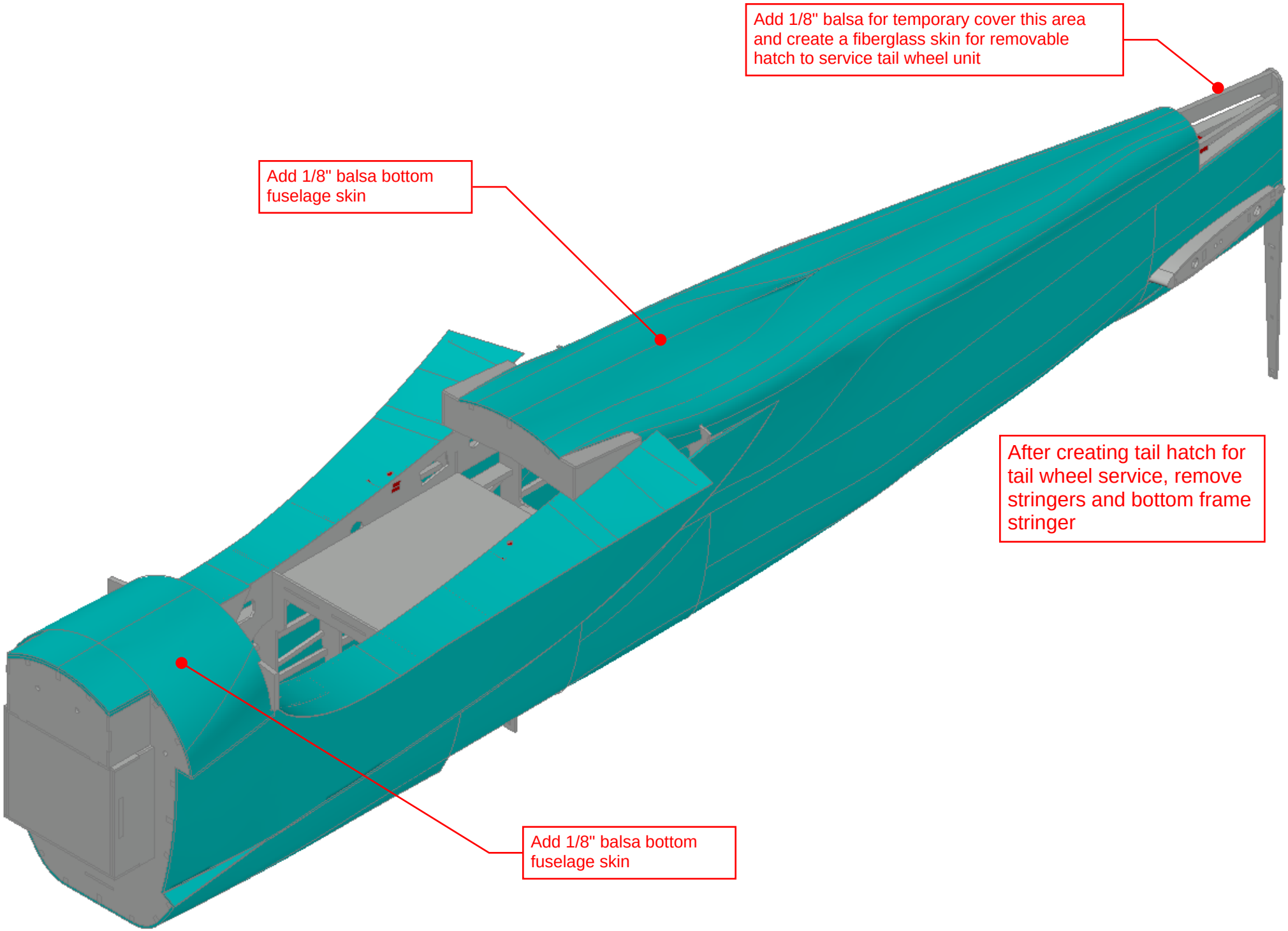
At this stage, install air tank for landing gear system.
Install radio equipment and control systems (pushrods)

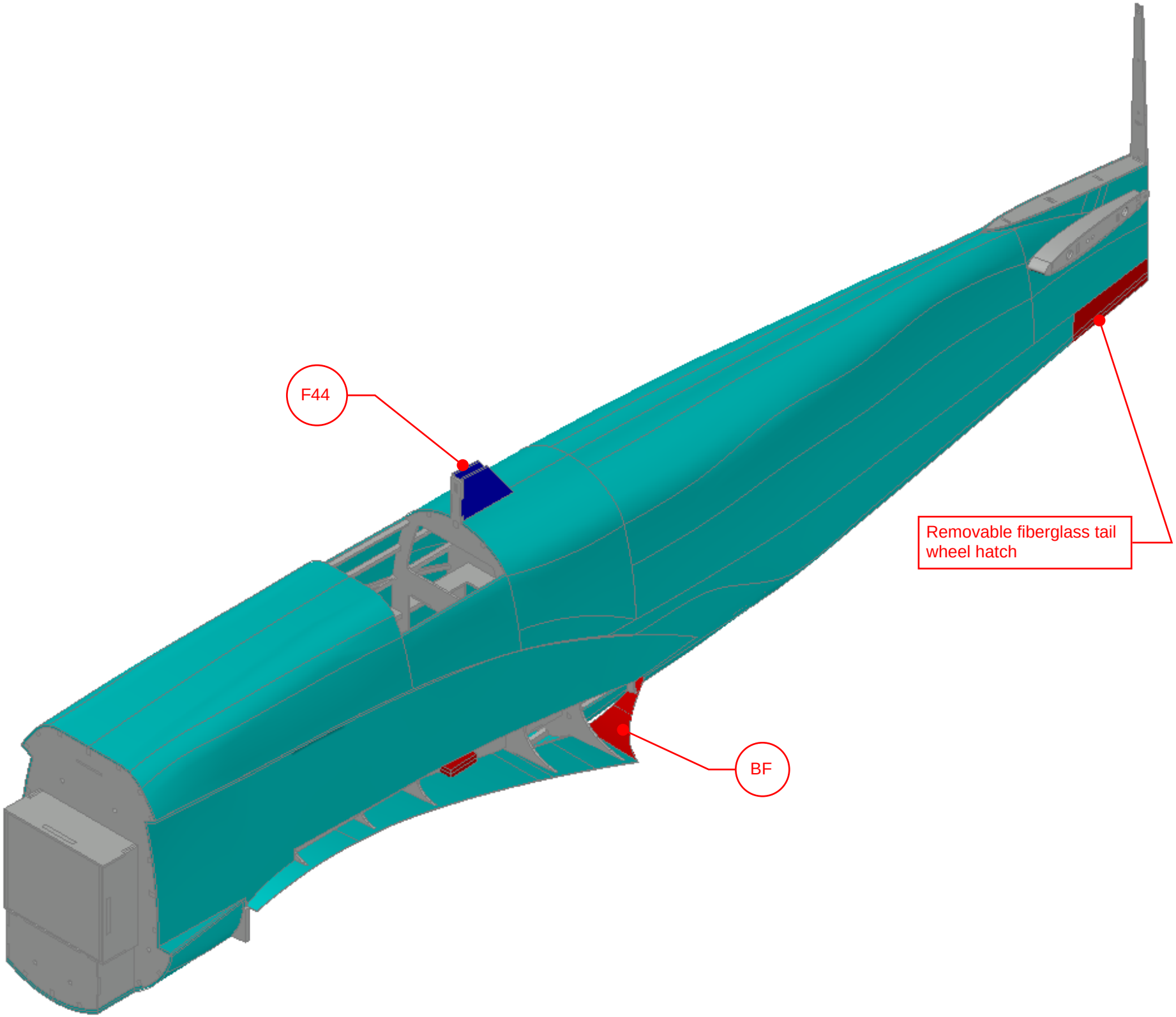

Add bottom 1/4"x1/4"
balsa stringers
Add additional "scale
shaped" 3/16"x3/16"
balsa stringer, cutting off
the space needed to fit in
place.

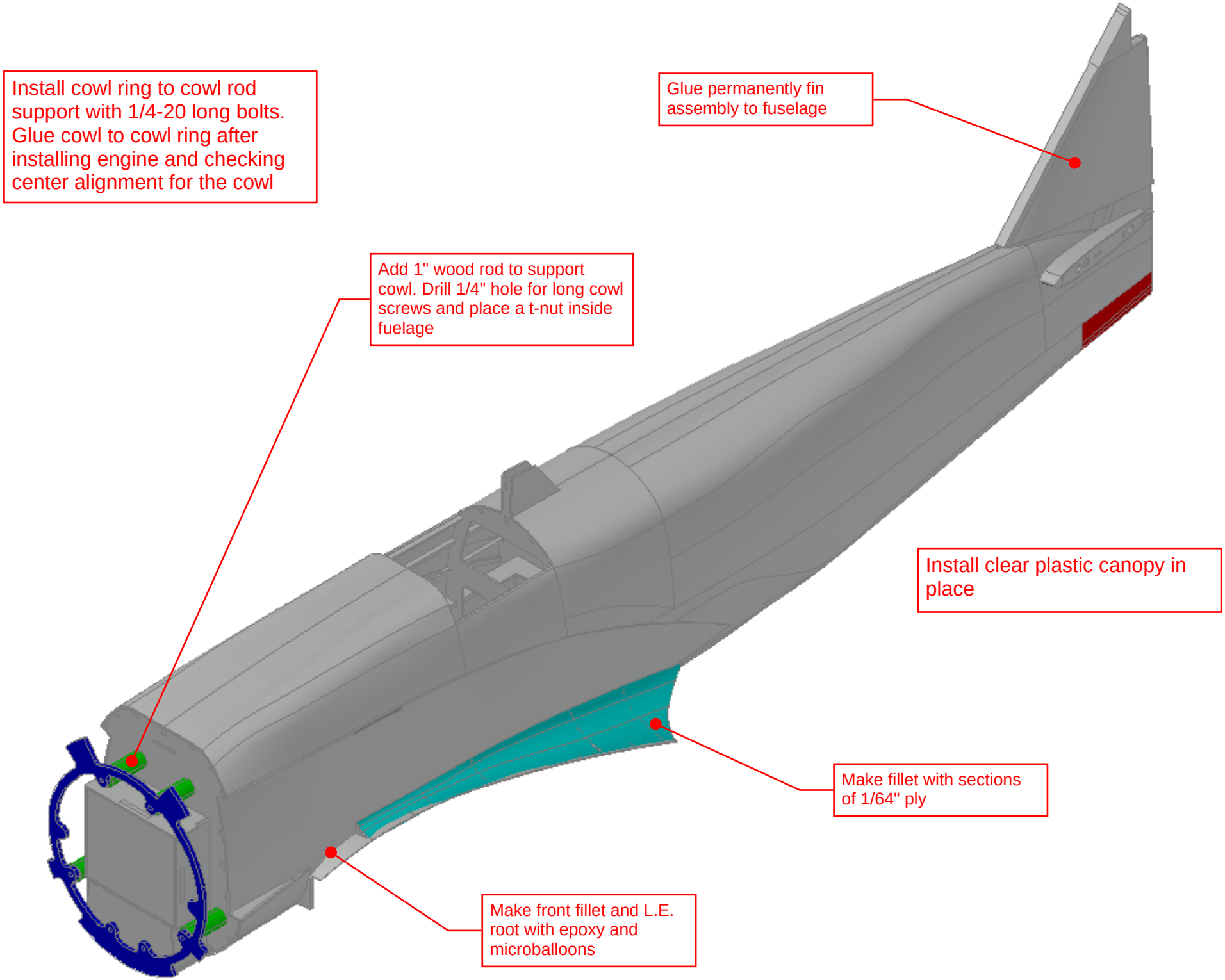

Add 3/32" balsa skin between center section stab ribs
Add stab L.E. shaped to airfoil

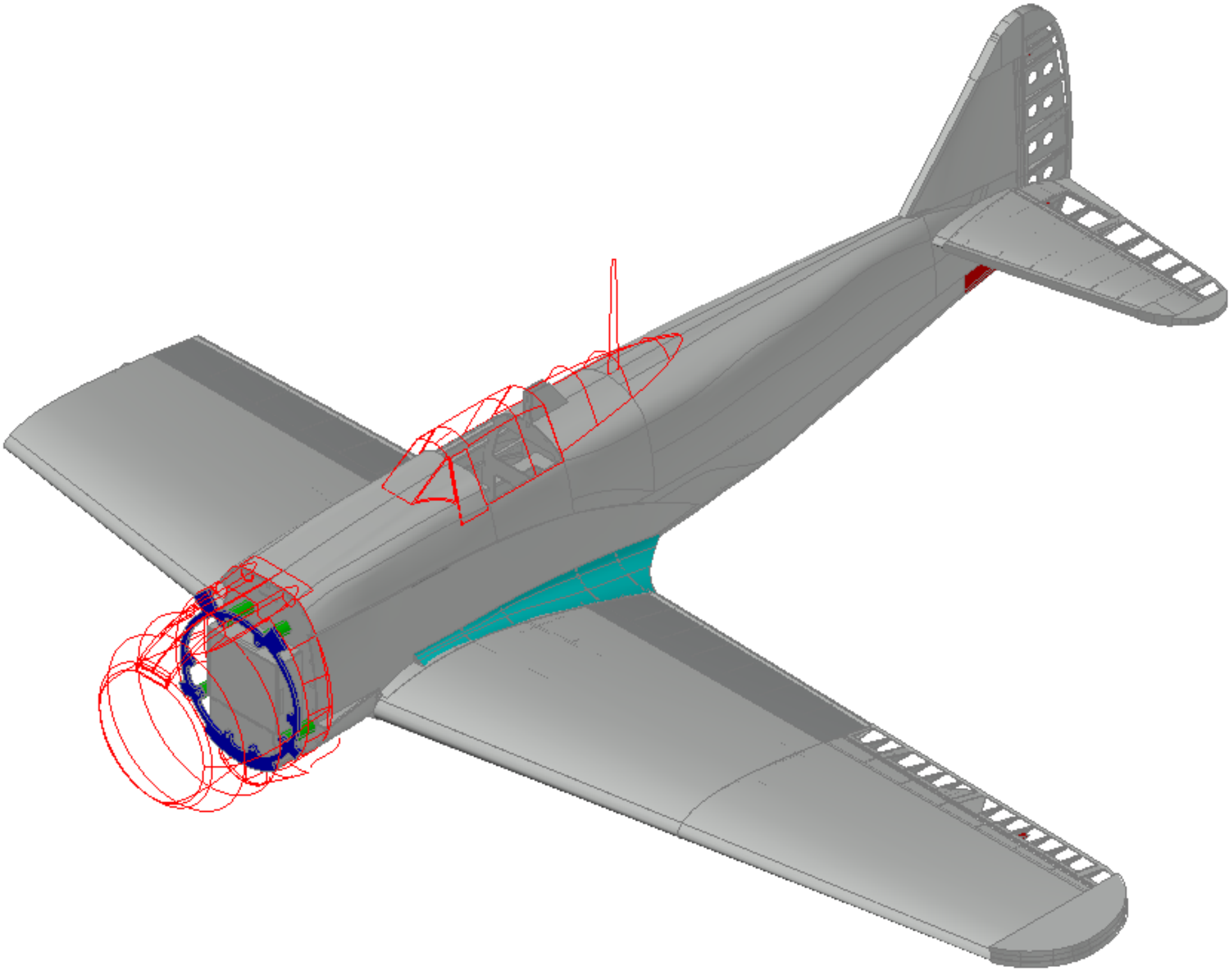

F38
Add 1/8" balsa between F7 and F8 out of scarp balsa
Add first layer of 1/8" balsa skin in this area
It is an extra layer of sheeting for strength during belly landings


Add 1/8" balsa top fuselage skin
Add special scale shaped 1/8" balsa fuselage skin


Add 1/8" balsa for temporary cover this area and create a fiberglass skin for removable hatch to service tail wheel unit
Add 1/8" balsa bottom fuselage skin
After creating tail hatch for tail wheel service, remove stringers and bottom frame stringer
Add 1/8" balsa bottom fuselage skin


F44
Removable fiberglass tail wheel hatch
BF


Install cowl ring to cowl rod support with 1/4-20 long bolts. Glue cowl to cowl ring after installing engine and checking center alignment for the cowl
Glue permanently fin assembly to fuselage
Add 1" wood rod to support cowl. Drill 1/4" hole for long cowl screws and place a t-nut inside fuelage
Install clear plastic canopy in place
Make fillet with sections of 1/64" ply
Make front fillet and L.E. root with epoxy and microballoons



Ki-100 **ZW LIST OF KIT PARTS**

Section	Name	Description	Qty	Material	Thickness
Fuse	F-1	Former 1	1	Ply	1/4
Fuse	F1A	Former 1A	1	LitePly	1/8
Fuse	F-2	Former 2	1	Ply	1/4
Fuse	F-3	Former 3	1	Ply	1/4
Fuse	F-3A	front wing doubbler support	1	Ply	1/4
Fuse	F-4	Former 4	1	Lite Ply	1/8
Fuse	F-5	Former 5	1	Lite Ply	1/8
Fuse	F-6	Former 6	1	Lite Ply	1/8
Fuse	F-7	Former 7	2	Lite Ply	1/8
Fuse	F-8	Former 8	2	Lite Ply	1/8
Fuse	F-9	Former 9	1	Lite Ply	1/8
Fuse	F-10	Former 10	1	Lite Ply	1/8
Fuse	F-11	Former 11	1	Lite Ply	1/8
Fuse	F-12	Former 12	2	Balsa	1/8
Fuse	F-13	Former 13	2	Balsa	1/8
Fuse	F-14	Former 14	1	Lite Ply	1/8
Fuse	F-15	Former 15	1	Ply	1/4
Fuse	F-15A	Tailgear unit mount	2	Ply	1/4
Fuse	F-16	Former 16	1	Lite Ply	1/8
Fuse	F-17	Former 17	1	Lite Ply	1/8
Fuse	F-18	Inside rib stab center	2	Lite Ply	1/8
Fuse	F-19	Engine main box sides	2	LitePly	1/8
Fuse	F-20	Engine box doubbler	2	Ply	1/8
Fuse	F-21	Engine box top forward plate	1	LitePly	1/8
Fuse	F-22	Engine box bottom forward plate	1	Ply	1/8
Fuse	F-23	Engine box aft bottom plate	1	Lite Ply	1/8
Fuse	F-24	Main side stringer	6	Balsa	1/4
Fuse	F-25	Main top front stringer	1	Balsa	1/4
Fuse	F-26	Main top rear stringer	2	Balsa	1/4
Fuse	F-27	Main bottom rear stringer	2	Balsa	1/4
Fuse	F-28	Main bottom front stringer	1	Balsa	1/4
Fuse	F-29	Stab-center bottom plate	1	Lite Ply	1/8
Fuse	F-30	Fin base rib	1	LitePly	1/8
Fuse	F-31	Front formers engine box key	10	Lite Ply	1/8
Fuse	F-32	Main servo tray	1	Lite Ply	1/8
Fuse	F-33	Blind nut plate for wing bolt	4	Ply	1/4
Fuse	F-34	Stab-center T.E.	1	Balsa	1/4
Fuse	F-35	Stab-center L.E. base	2	Balsa	1/8
Fuse	F-36	Outside rib stab center	2	Lite Ply	1/8
Fuse	F-37	Back of wing former	1	LitePly	1/8
Fuse	F-38	Wing saddle	2	Lite Ply	1/32
Fuse	F-44	Pilot headrest plate	2	Balsa	1/8
Fuse	F-45	Front box sides	2	LitePly	1/8
Fuse	F-46	Fuel tank support	1	LitePly	1/8
Fuse	FW1	Firewall back layer	1	Ply	1/4

Ki-100 **ZW LIST OF KIT PARTS**

Section	Name	Description	Qty	Material	Thickness
Fuse	FW2	Firewall front layer	1	Ply	1/4
Wing	WB1	Belly pan former 1	1	LitePly	1/8
Wing	WB2	Belly pan former 2	2	LitePly	1/8
Wing	WB3	Belly pan former 3	2	LitePly	1/8
Wing	WB4	Belly pan fromer 4	2	LitePly	1/8
Wing	WB5	Belly pan former 5	1	LitePly	1/8
Fuse	ANT	Antenna core	1	Ply	1/16
Fuse	BF	Back fillet core	2	Ply	1/32
Fuse	CF	Cockpit floor plate	1	LitePly	1/8
Fuse	TP	Tail post	1	Lite Ply	1/8
Fuse	TW	Tailgear unit support	2	LitePly	1/8
Cockpit	12B	Bottom joiner for F-12	1	Balsa	1/8
Cockpit	12U	Upper joiner for F-12	1	Balsa	1/8
Cockpit	13B	Bottom joiner for F-13	1	Balsa	1/8
Cockpit	13U	Upper joiner for F-13	1	Balsa	1/8
Fin	FN-1	Fin rib 1	1	Balsa	1/8
Fin	FN-2	Fin rib 2	1	Balsa	1/8
Fin	FN-3	Fin rib 3	1	Balsa	1/8
Fin	FN-4	Fin rib 4	1	Balsa	1/8
Fin	FN-5	Fin L.E. base	1	Balsa	1/8
Fin	FN-6	Fin rear post	1	Balsa	1/8
Fin	FN-9	Fin top block	3	Balsa	1/4
Fin	R-1	Rudder rib 1	1	Balsa	1/8
Fin	R-2	Rudder rib 2	1	Balsa	1/8
Fin	R-3	Rudder rib 3	1	Balsa	1/8
Fin	R-4	Rudder rib 4	1	Balsa	1/8
Fin	R-5	Rudder rib 5	1	Balsa	1/8
Fin	R-6	Rudder rib 6	1	Balsa	1/8
Fin	R-7	Rudder rib 7	1	Balsa	1/8
Fin	R-8	Rudder rib 8	1	Balsa	1/8
Fin	R-9	Rudder rib 9	1	Balsa	1/8
Fin	R-10	Rudder rib 10	1	Balsa	1/8
Fin	R-11	Rudder rib 11	1	Balsa	1/8
Fin	R-12	Rudder core	1	Ply	1/16
Fin	R-13	Rudder front post	1	Balsa	1/8
Fin	R-14	Rudder skin	2	Ply	1/32
Fin	R-15	Rudder front tip	2	Balsa	1/4
Fin	R-15	Rudder front tip core	1	Balsa	1/8
Fin	R-16	Rudder bottom block	4	Balsa	1/4
Fin	R-16	Rudder bottom block core	1	Balsa	1/8
Fin	R-17	Rudder rear tip	2	Balsa	1/4
Fin	R-18	Rudder L.E.	2	Balsa	1/4
Wing	W1	Wing rib 1	2	Ply	1/8
Wing	W2	Wing rib 2	2	Lite Ply	1/8
Wing	W2A	Wing rib 2A	2	Lite Ply	1/8

Ki-100 **ZW LIST OF KIT PARTS**

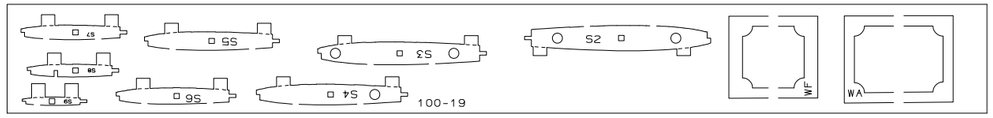
Section	Name	Description	Qty	Material	Thickness
Wing	W2B	Partial W2 front doubler	2	Ply	1/8
Wing	W3	Wing rib 3	2	Lite Ply	1/8
Wing	W4	Wing rib 4	2	Lite Ply	1/8
Wing	W5	Wing rib 5	2	Balsa	1/8
Wing	W6	Wing rib 6	2	Ply	1/8
Wing	W6A	Wing semi rib 6A	2	Ply	1/8
Wing	W7	Wing rib 7	2	LitePly	1/8
Wing	W8	Wing rib 8	2	Ply	1/8
Wing	W8A	Wing rib 8A	2	Ply	1/8
Wing	W9	Wing rib 9	2	Balsa	1/8
Wing	W10	Wing rib 10	2	Lite Ply	1/8
Wing	W11	Wing rib 11	2	LitePly	1/8
Wing	W12	Wing rib 12	2	Balsa	1/8
Wing	W13	Wing rib 13	2	Balsa	1/8
Wing	W14	Wing rib 14	2	Balsa	1/8
Wing	W15	Wing rib 15	2	Balsa	1/8
Wing	W16	Wing rib 16	2	Balsa	1/8
Wing	W17	Wing rib 17	2	LitePly	1/8
Wing	W18	Wing rib 18	2	LitePly	1/8
Wing	W19	Inner main spar	2	Ply	1/8
Wing	W20	Outter main spar	2	LitePly	1/8
Wing	W21	Inner rear spar	2	LitePly	1/8
Wing	W22	Outter rear spar	2	Balsa	1/8
Wing	W23	Inner front rib jig	2	Balsa	1/8
Wing	W24	Center wing L.E. base	2	Balsa	1/8
Wing	W25	Inner L.E. support	2	Balsa	1/8
Wing	W26	Outter front rib jig	2	Balsa	1/8
Wing	W27	Outter L.E. base	2	Balsa	1/8
Wing	W28	Center wing rear spar	2	LitePly	1/8
Wing	W29	Wheel well support front	4	Balsa	1/8
Wing	W30	Wheel well support rear bottom	2	Balsa	1/8
Wing	W31	Wheel well support rear middle	2	Balsa	1/8
Wing	W32	Wheel well support rear top	2	Balsa	1/8
Wing	W33	Strut well wall	2	Balsa	1/8
Wing	W34	Strut well wall	2	Balsa	1/8
Wing	W35	Strut well wall	2	Balsa	1/8
Wing	W36	Strut well wall	2	Balsa	1/8
Wing	W37	Top Skin over flaps	2	Ply	1/32
Wing	W38	Top skin over ailerons	2	Ply	1/32
Wing	W39	Wing tip (inner)	6	Balsa	3/8
Wing	W40	Wing tip (outter)	4	Balsa	3/8
Wing	W41	Wing tip (outter core)	2	Ply	1/32
Wing	W42	Wing center rear block	1	Balsa	1/4
Wing	W43	Wing central L.E. jig	2	LitePly	1/8
Wing	AIL	Aileron servo plate	2	LitePly	1/8

Ki-100 **ZW LIST OF KIT PARTS**

Section	Name	Description	Qty	Material	Thickness
Wing	FLP	Flap servo plate	2	LitePly	1/8
Wing	WA	Aileron servo hatch frame bottom	2	Balsa	3/32
Wing	WA	Aileron servo hatch frame top	2	Ply	1/32
Wing	WF	Flap servo hatch frame bottom	2	Balsa	3/32
Wing	WF	Flap servo hatch frame top	2	Ply	1/32
Wing	WL1	Wing lock part 1	4	Ply	1/4
Wing	WL2	Wing lock part 2	8	Ply	1/8
Wing	WL3	Wing lock part 3	8	Ply	1/8
Wing	WL4	Wing lock part 4	4	Ply	1/4
Wing	W44	belly pan center outline	1	Balsa	1/4
Wing	A1	Aileron rib 1	2	Balsa	1/8
Wing	A2	Aileron rib 2	2	Balsa	1/8
Wing	A3	Aileron rib 3	2	Balsa	1/8
Wing	A4	Aileron rib 4	2	Balsa	1/8
Wing	A5	Aileron rib 5	2	Balsa	1/8
Wing	A6	Aileron rib 6	2	Balsa	1/8
Wing	A7	Aileron rib 7	2	Balsa	1/8
Wing	A8	Aileron rib 8	2	Ply	1/16
Wing	A9	Aileron rib 9	2	Balsa	1/8
Wing	A10	Aileron rib 10	2	Balsa	1/8
Wing	A11	Aileron rib 11	2	Balsa	1/8
Wing	A12	Aileron rib 12	2	Balsa	1/8
Wing	A13	Aileron rib 13	2	Balsa	1/8
Wing	A14	Aileron rib 14	2	Balsa	1/8
Wing	A15	Aileron rib 15	2	Balsa	1/8
Wing	A16	Aileron rib 16	2	Balsa	1/8
Wing	A17	Aileron rib 17	2	Balsa	1/8
Wing	A18	Aileron rib 18	2	Balsa	1/8
Wing	A19	Aileron main spar	2	Balsa	1/8
Wing	A20	Aileron bottom skin	2	Ply	1/16
Wing	A21	Aileron Top skin	2	Ply	1/32
Wing	FL0	Flap bottom skin	2	Ply	1/16
Wing	FL1	Flap rib 1	2	Balsa	1/8
Wing	FL2	Flap rib 2	2	Balsa	1/8
Wing	FL3	Flap rib 3	2	Balsa	1/8
Wing	FL4	Flap rib 4	2	Balsa	1/8
Wing	FL5	Flap rib 5	2	Balsa	1/8
Wing	FL6	Flap rib 6	2	Balsa	1/8
Wing	FL7	Flap rib 7	2	Balsa	1/8
Wing	FL8	Flap rib 8	2	Balsa	1/8
Wing	FL9	Flap rib 9	2	Balsa	1/8
Wing	FL10	Flap rib 10	2	Balsa	1/8
Wing	FL11	Flap rib 11	2	Balsa	1/8
Wing	FL12	Flap rib 12	2	Balsa	1/8
Wing	FL13	Flap rib 13	2	Balsa	1/8

Ki-100 **ZW LIST OF KIT PARTS**

Section	Name	Description	Qty	Material	Thickness
Wing	FL14	Flap main spar	4	Balsa	1/8
Wing	LG	Landing gear plate	2	Ply	1/4
Wing	WBB	Wing bolt bottom plate	2	LitePly	1/8
Wing	WBU	Wing bolt upper plate	2	LitePly	1/8
Stab	S1	Stab rib 1	2	LitePly	1/8
Stab	S2	Stab rib 2	2	Balsa	3/32
Stab	S3	Stab rib 3	2	Balsa	3/32
Stab	S4	Stab rib 4	2	Balsa	3/32
Stab	S5	Stab rib 5	2	Balsa	3/32
Stab	S6	Stab rib 6	2	Balsa	3/32
Stab	S7	Stab rib 7	2	Balsa	3/32
Stab	S8	Stab rib 8	2	Balsa	3/32
Stab	S9	Stab rib 9	2	Balsa	3/32
Stab	S11	Stab main spar	2	Balsa	1/4
Stab	S12	Stab L.E. base	2	Balsa	1/8
Stab	S13	Connector rib 8 and 9 for L.E. block	2	Balsa	1/8
Stab	S14	Stab outter L.E.	4	Balsa	1/4
Stab	S14	Stab outter L.E. core	2	Balsa	1/8
Stab	S15	Stab tip	4	Balsa	1/4
Stab	S15	Stab tip core	2	Ply	1/32
Stab	E1	Elevator rib 1	2	Balsa	1/8
Stab	E2	Elevator rib 2	2	Balsa	1/4
Stab	E3	Elevator rib 3	2	Balsa	1/8
Stab	E4	Elevator rib 4	2	Balsa	1/8
Stab	E5	Elevator rib 5	2	Balsa	1/8
Stab	E6	Elevator rib 6	2	Balsa	1/8
Stab	E7	Elevator rib 7	2	Balsa	1/8
Stab	E8	Elevator rib 8	2	Balsa	1/8
Stab	E9	Elevator rib 9	2	Balsa	1/8
Stab	E10	Elevator rib 10	2	Balsa	1/8
Stab	E11	Elevator main spar	2	Balsa	1/8
Stab	E12	Elevator L.E.	4	Balsa	1/4
Stab	E13	Elevator rear at elevator tab	2	Balsa	1/8
Stab	E14	Elevator skin	4	Ply	1/32
Stab	E15	Elevator tork pocket	4	LitePly	1/8
Stab	ET	Elevator tab	2	Balsa	1/4
Cowl	CR	Cowl Ring	1	Ply	1/4
Cockpit		Cockpit panel base	2	Ply	1/16
		Total # of parts	458		



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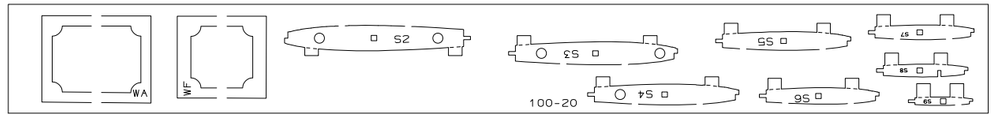

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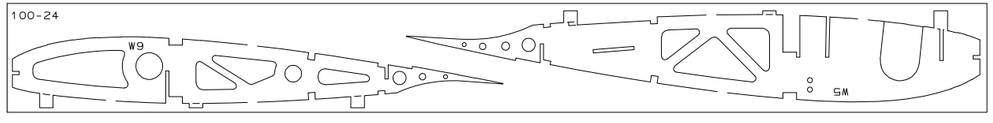

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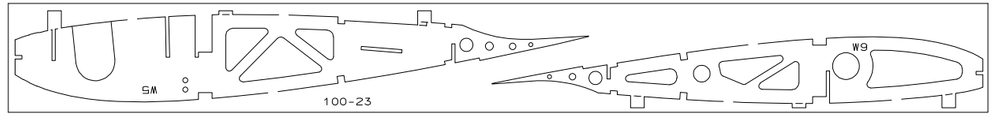

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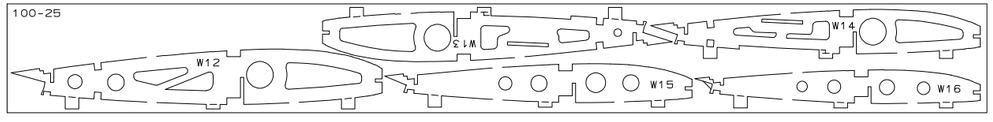

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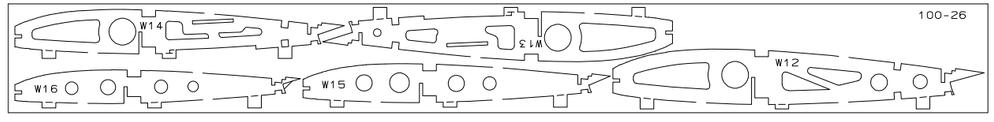

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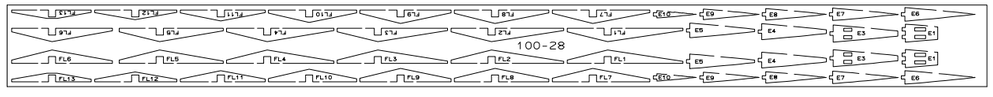

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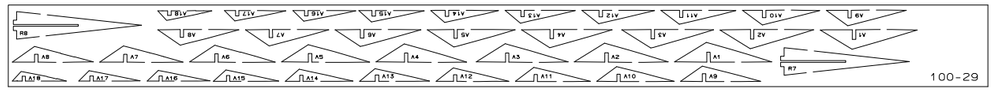

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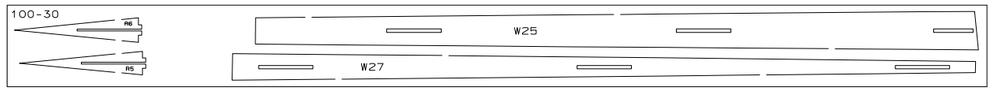

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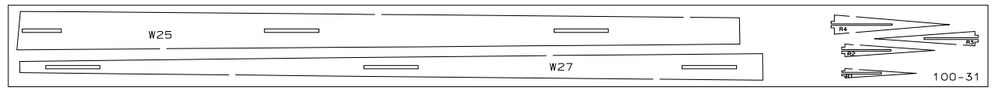

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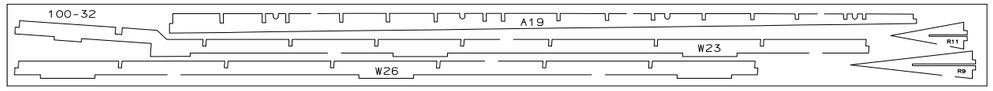

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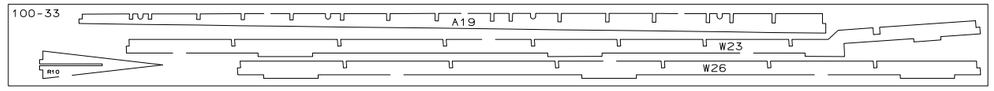

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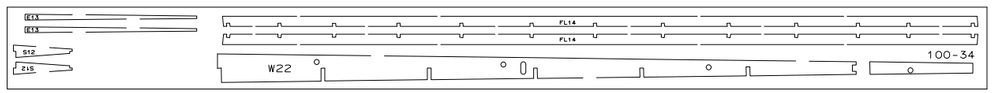

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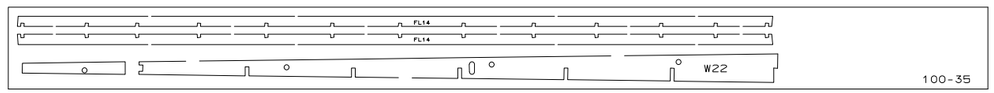

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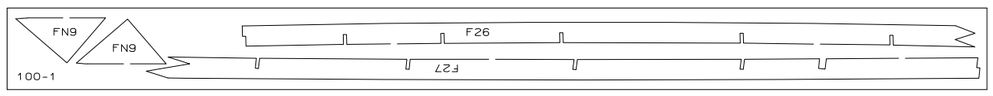

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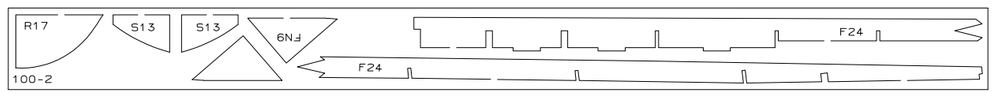

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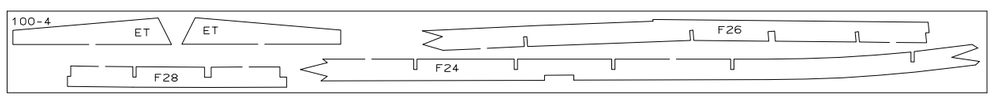

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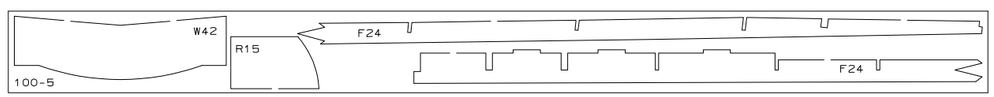

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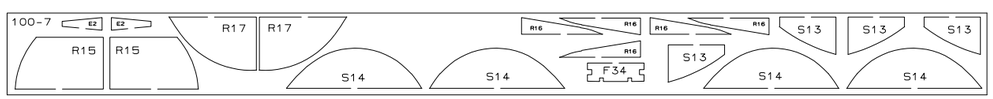

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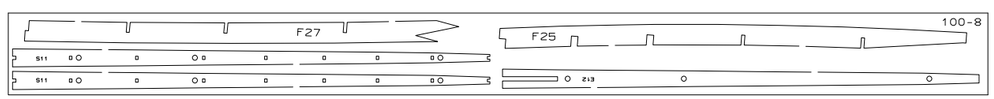

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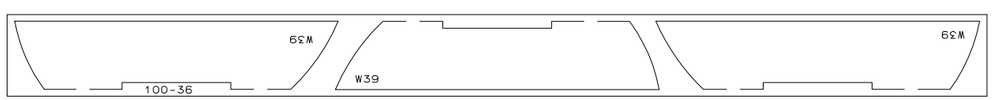

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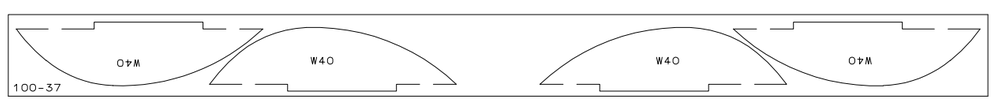

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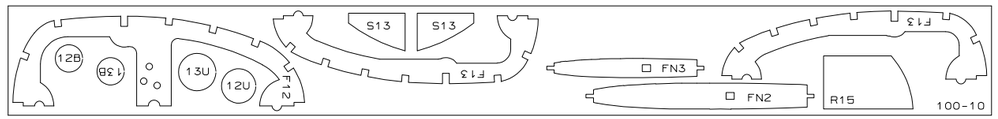
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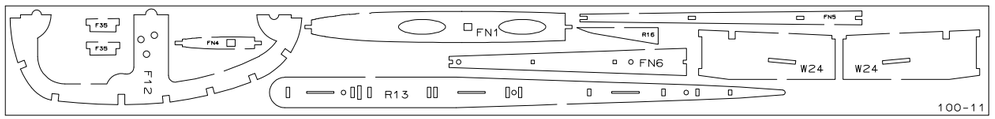
13B
13U
12U
F12
S13
S13
F13
FN3
FN2
R15
F13
100-10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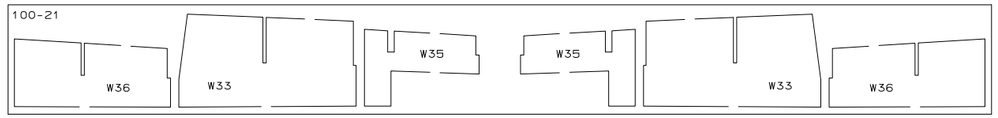
F12
FN4
FN1
FN5
R16
FN6
R13
W24
W24
100-11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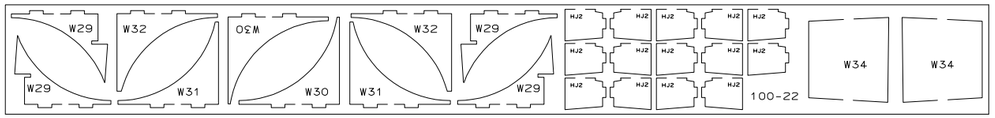
W36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HJ2
W34
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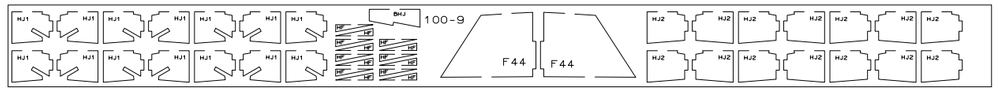
100-22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BHJ
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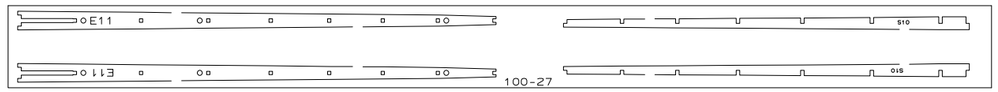
F44
F44
HJ2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S10
S10
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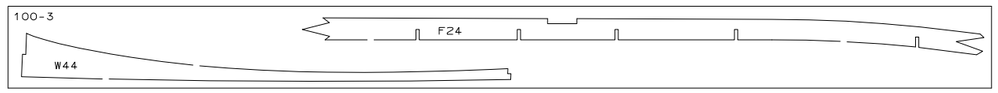
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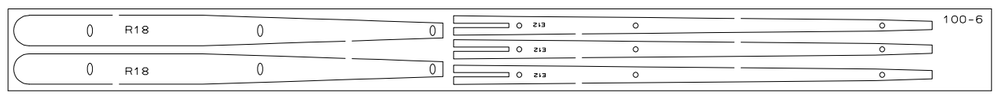
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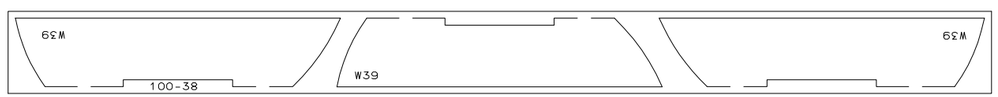
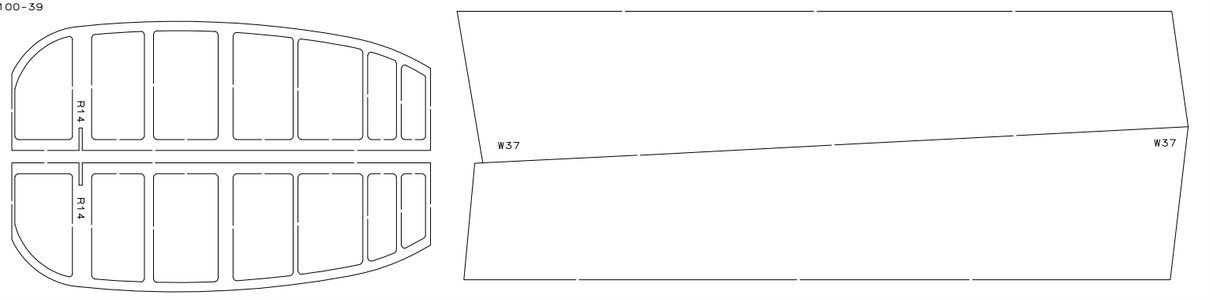
E12
E12
E12
100-6


W39
W39
100-38
W39

100-39



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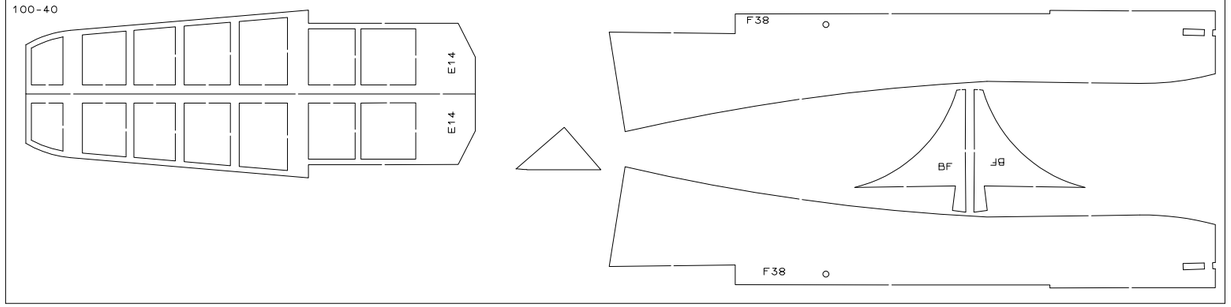

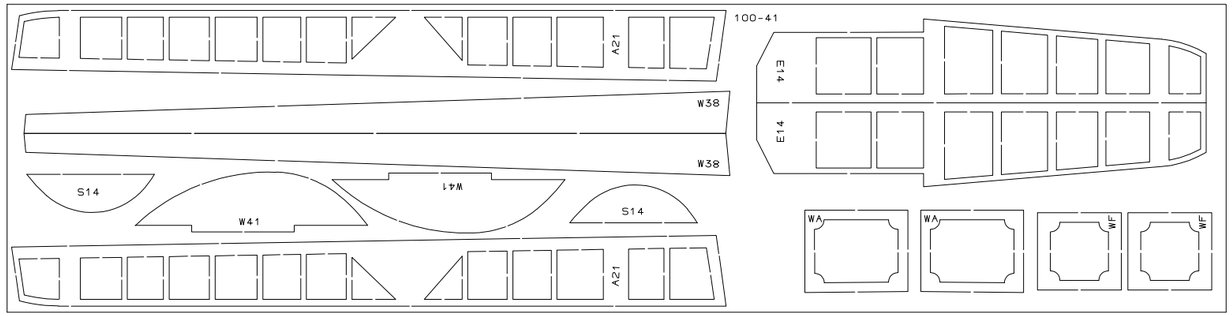

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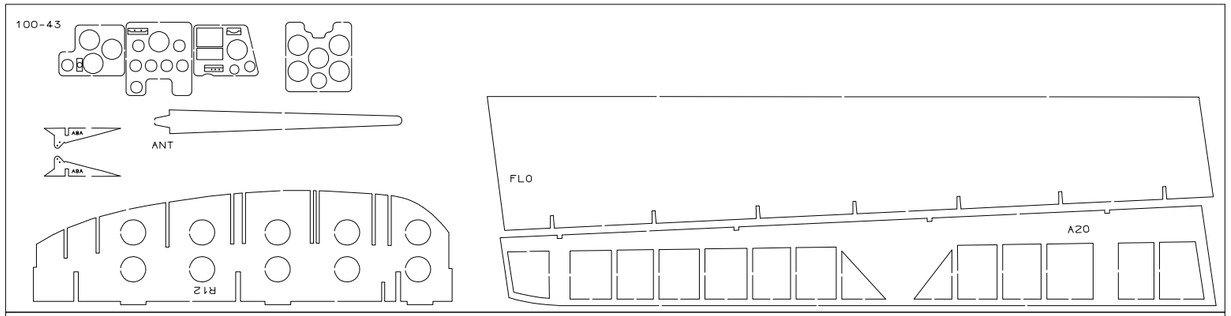

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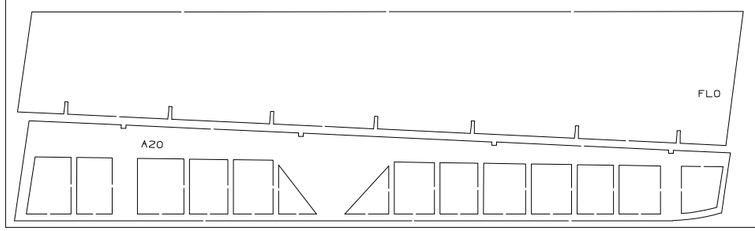

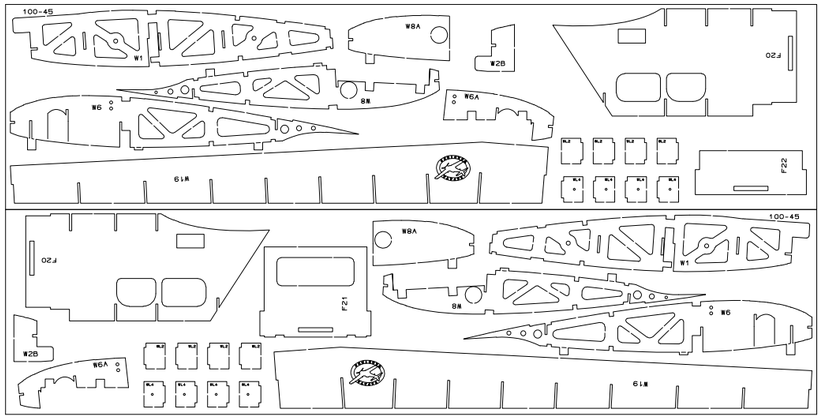
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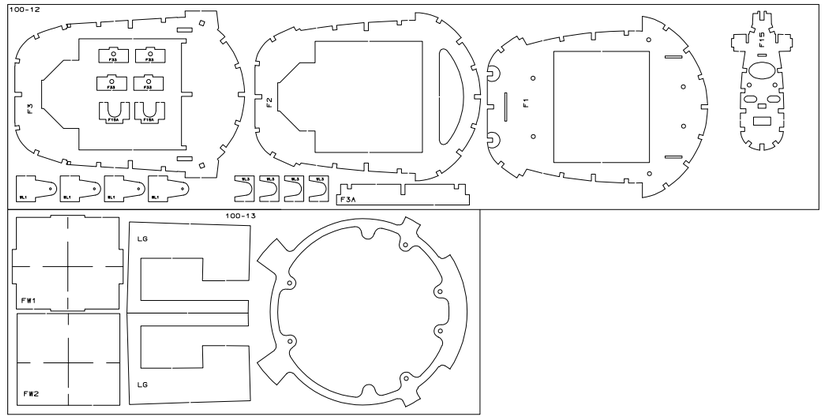
W8
W6
W19
100-45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F1
F15
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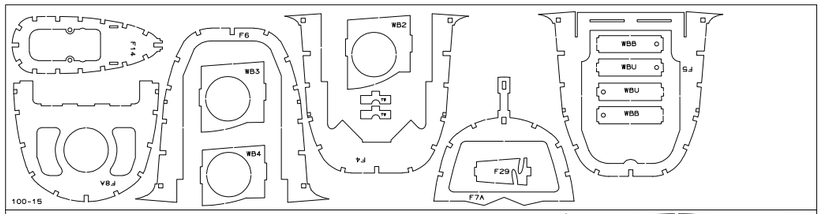
100-13
LG
FW1
FW2
LG

PLY 1/4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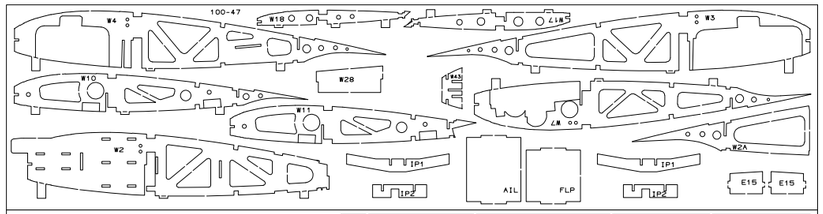
WB2
WB3
WB4
F8A
F4
F29
F7A
WBB
WBU
WBU
WBB
F5
100-15
100-17
COCKPIT FLOOR
TANK
F46
F37
F9
F23
F32
F11
WB3
WB2
F1A
F30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W10
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W11
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IP2
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W3
W7
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E15
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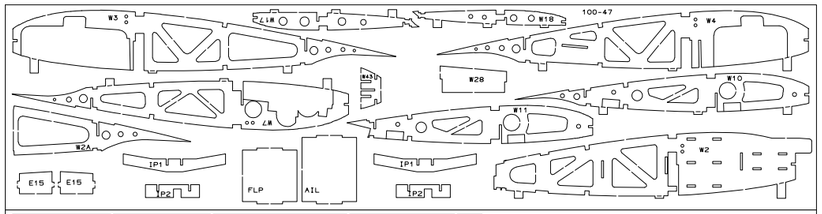
100-18
W21
S1
W20
F18
F19
F36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FLP
AIL
100-18
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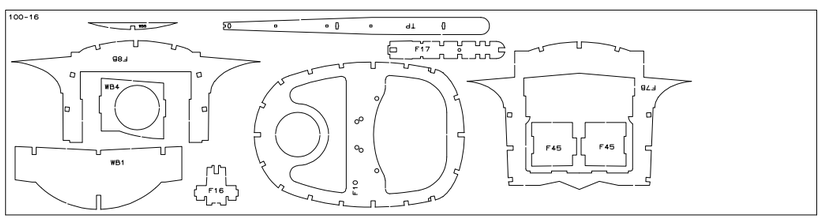
W20
S1
F19
F18
F36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TP
F17
WB4
F7B
F45
F45
WB1
F16
F10