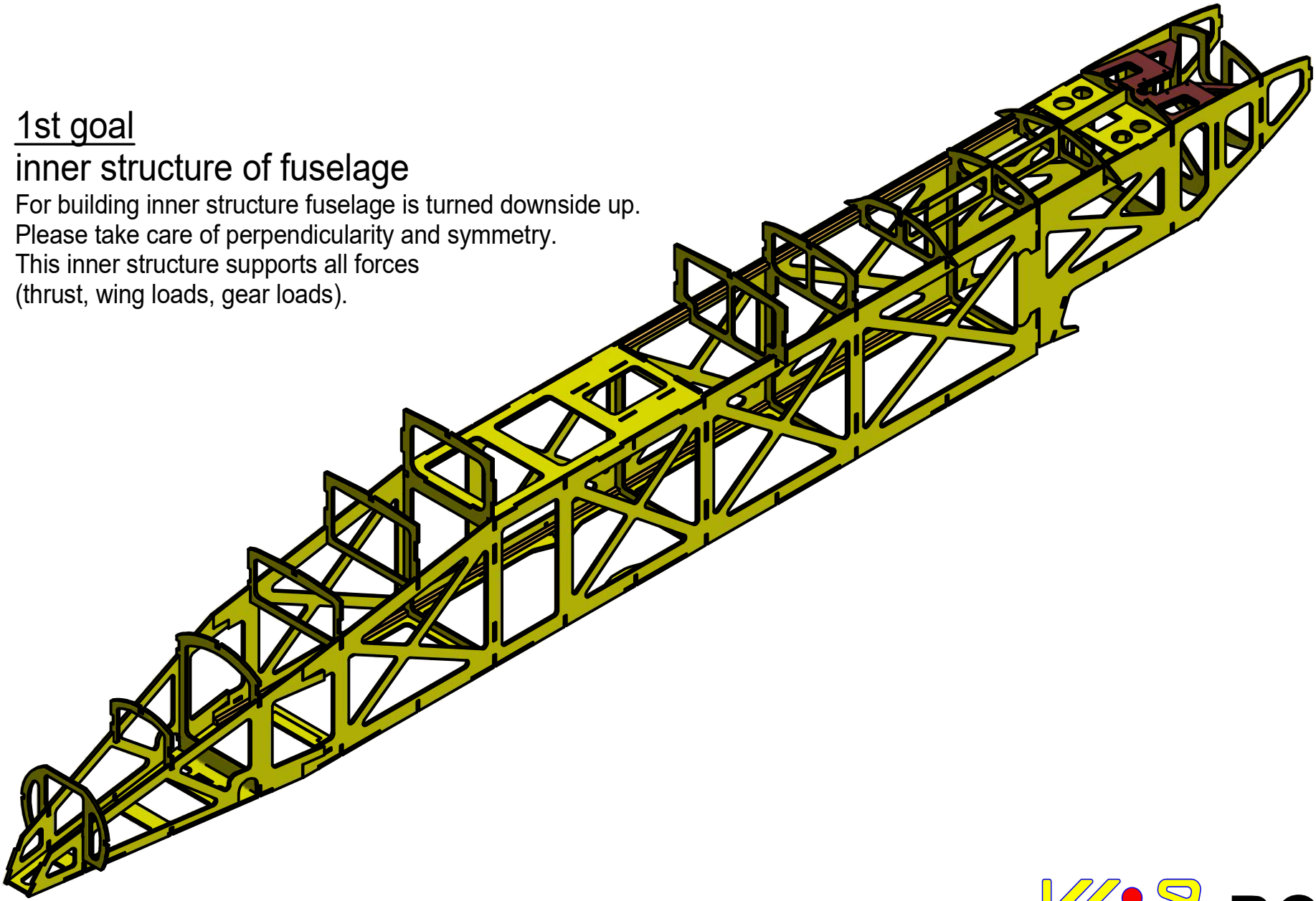
Building instructions fuselage

1st goal

inner structure of fuselage

For building inner structure fuselage is turned downside up.
Please take care of perpendicularity and symmetry.
This inner structure supports all forces
(thrust, wing loads, gear loads).



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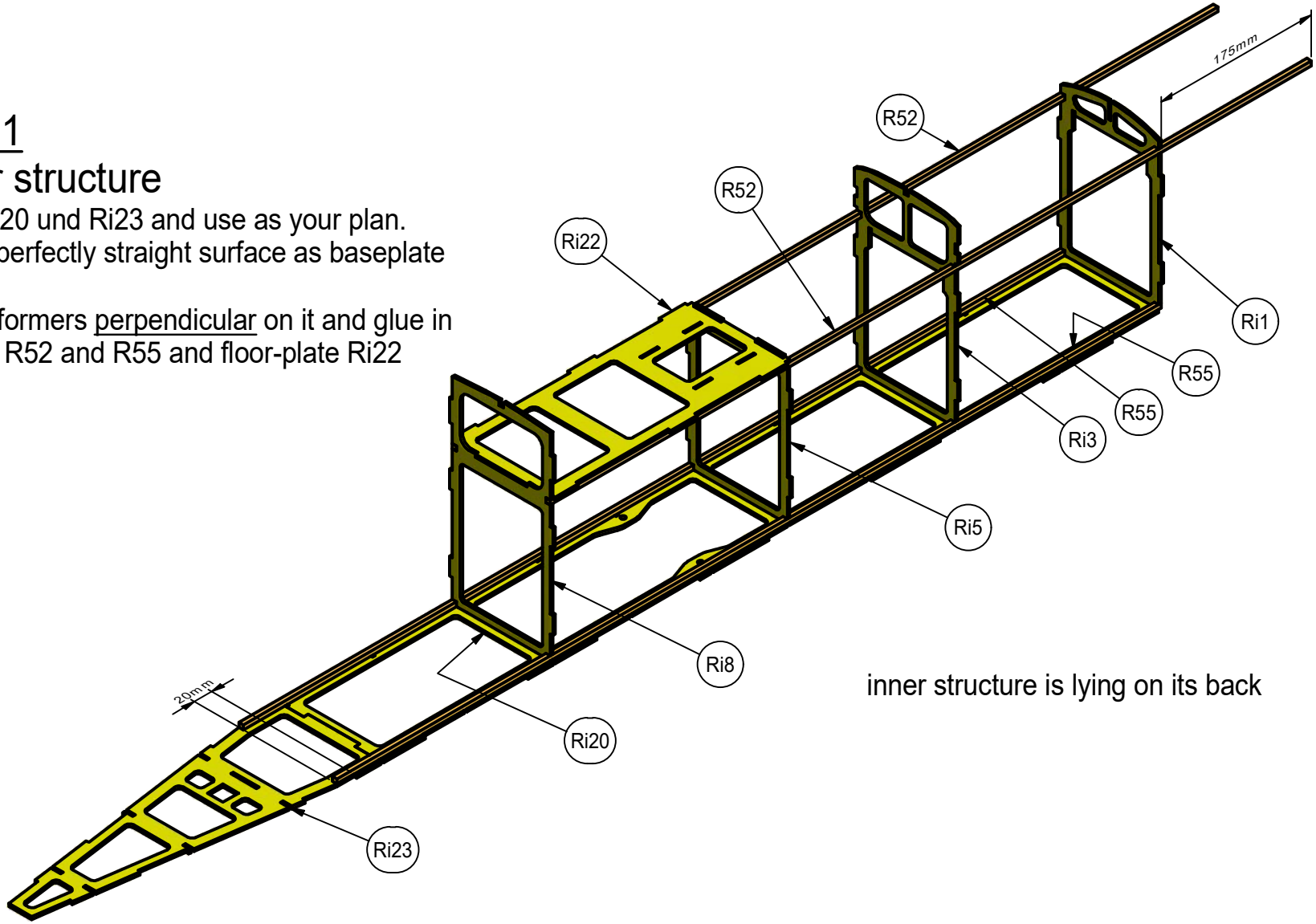
Building instructions fuselage

step 1
inner structure

Join Ri20 und Ri23 and use as your plan.
Use a perfectly straight surface as baseplate

put all formers perpendicular on it and glue in ledges R52 and R55 and floor-plate Ri22



inner structure is lying on its back

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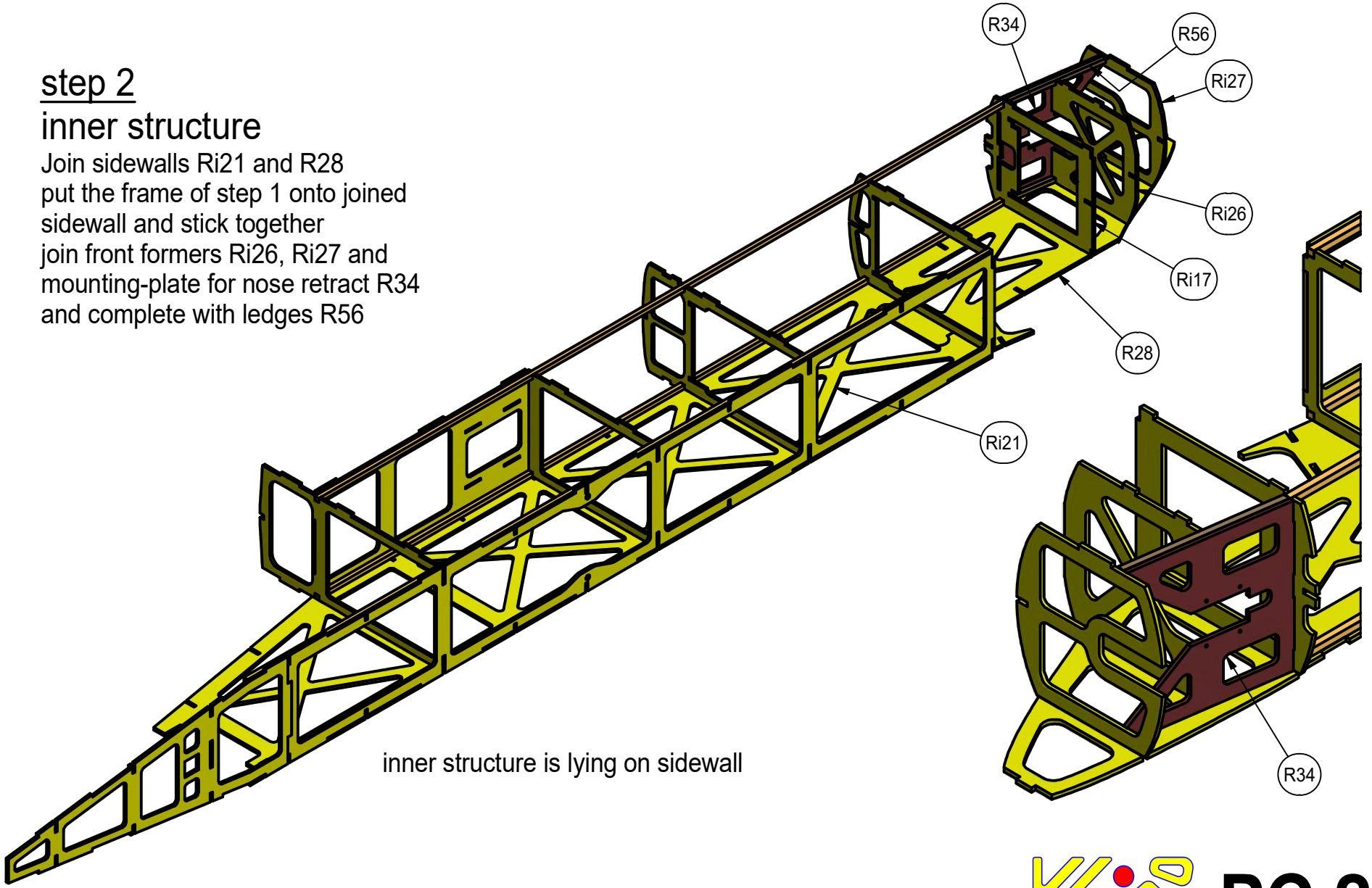
Building instructions fuselage

step 2

inner structure

Join sidewalls Ri21 and R28
put the frame of step 1 onto joined sidewall and stick together
join front formers Ri26, Ri27 and mounting-plate for nose retract R34 and complete with ledges R56



inner structure is lying on sidewall

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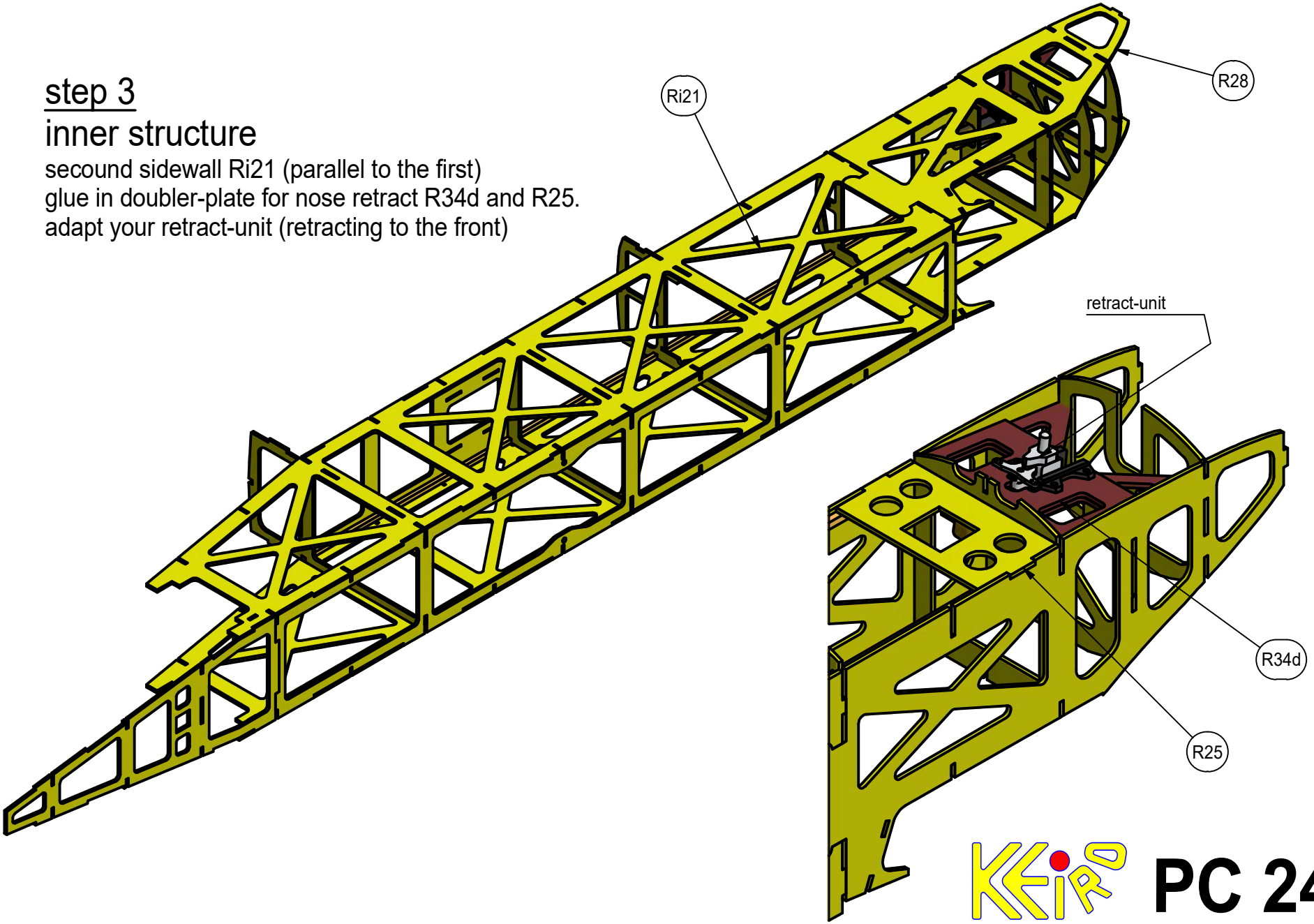
Building instructions fuselage

step 3

inner structure

secound sidewall Ri21 (parallel to the first)
glue in doubler-plate for nose retract R34d and R25.
adapt your retract-unit (retracting to the front)



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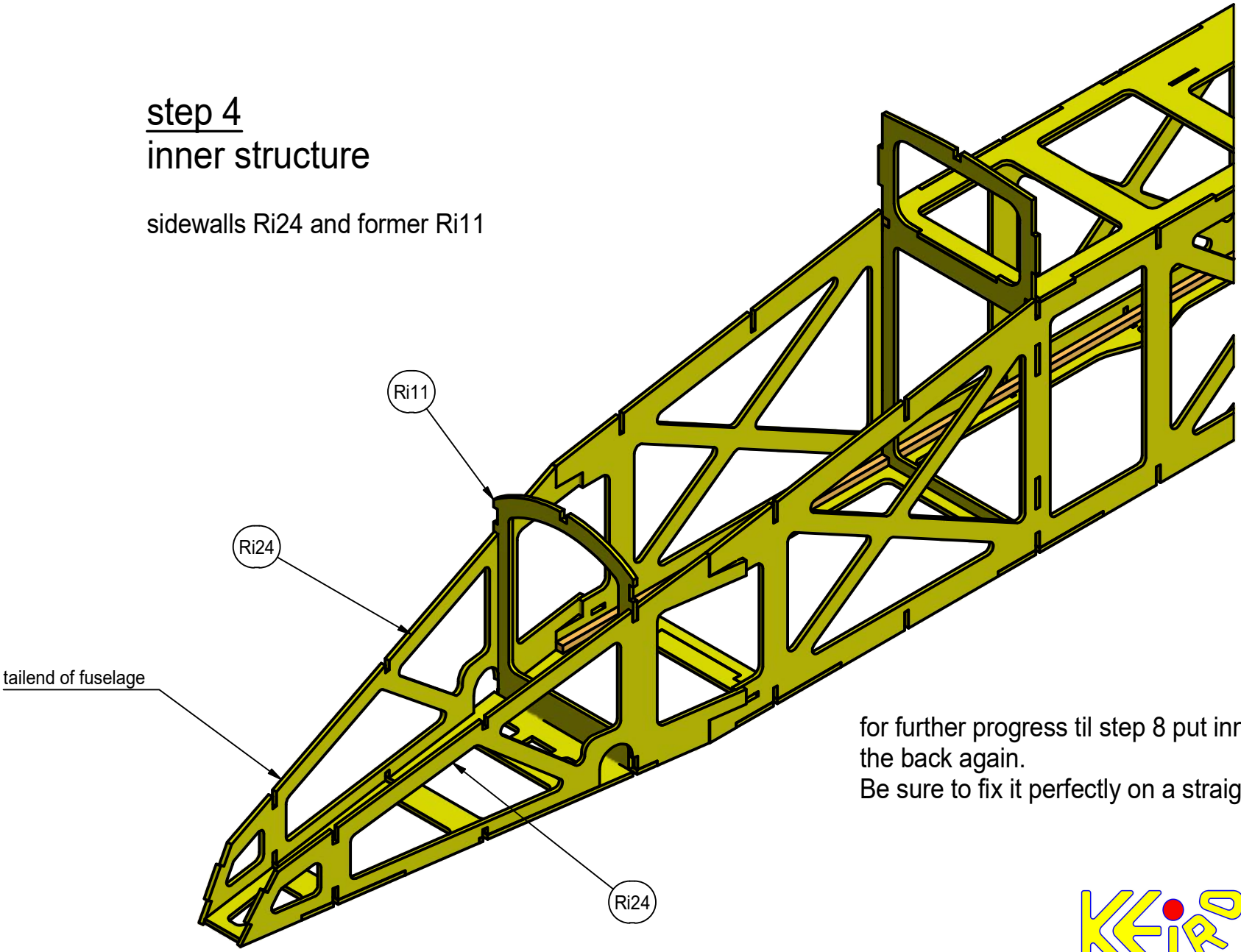
Building instructions fuselage

step 4
inner structure

sidewalls Ri24 and former Ri11



for further progress til step 8 put inner structure on the back again.
Be sure to fix it perfectly on a straight surface

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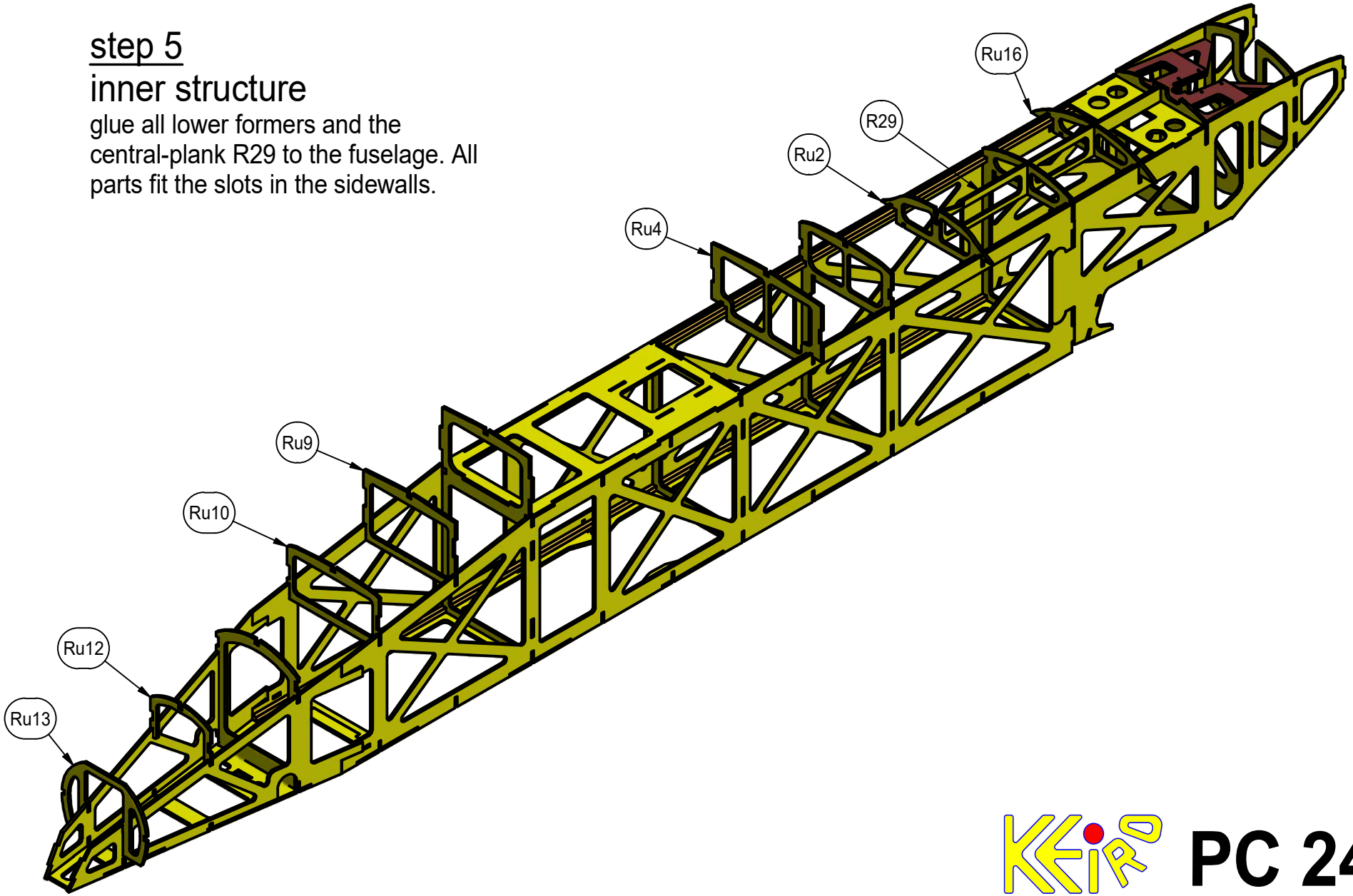
Building instructions fuselage

step 5

inner structure

glue all lower formers and the central-plank R29 to the fuselage. All parts fit the slots in the sidewalls.



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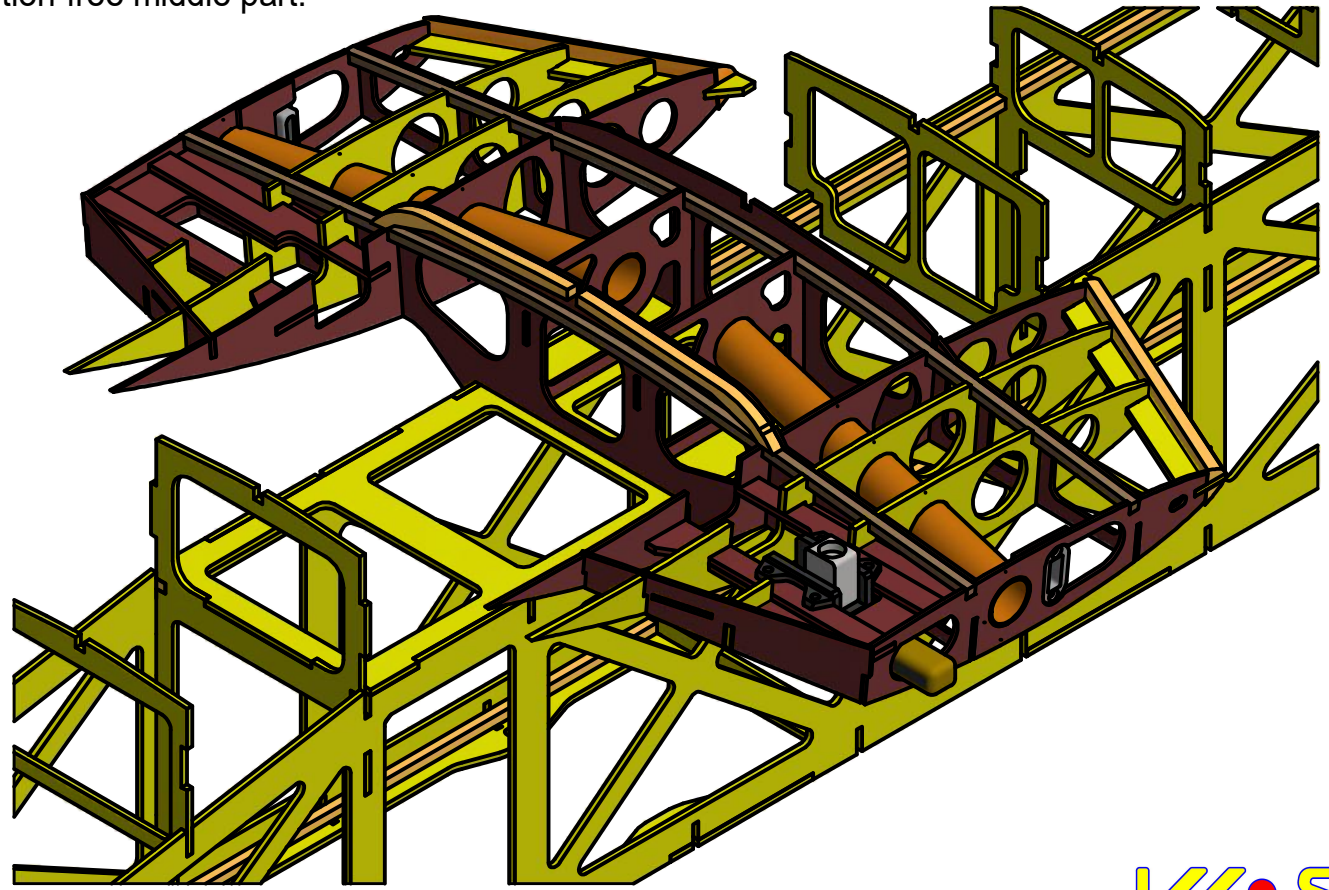
2nd goal

middle part of the wing on the fuselage

the middle part of the wing contains the wing mating-tubes
and both retract-units for main gears.
the middle part dicharges aerodynamic forces of the wing and
the forces of main gear into the inner structure.
Take care to get a distortion-free middle part.

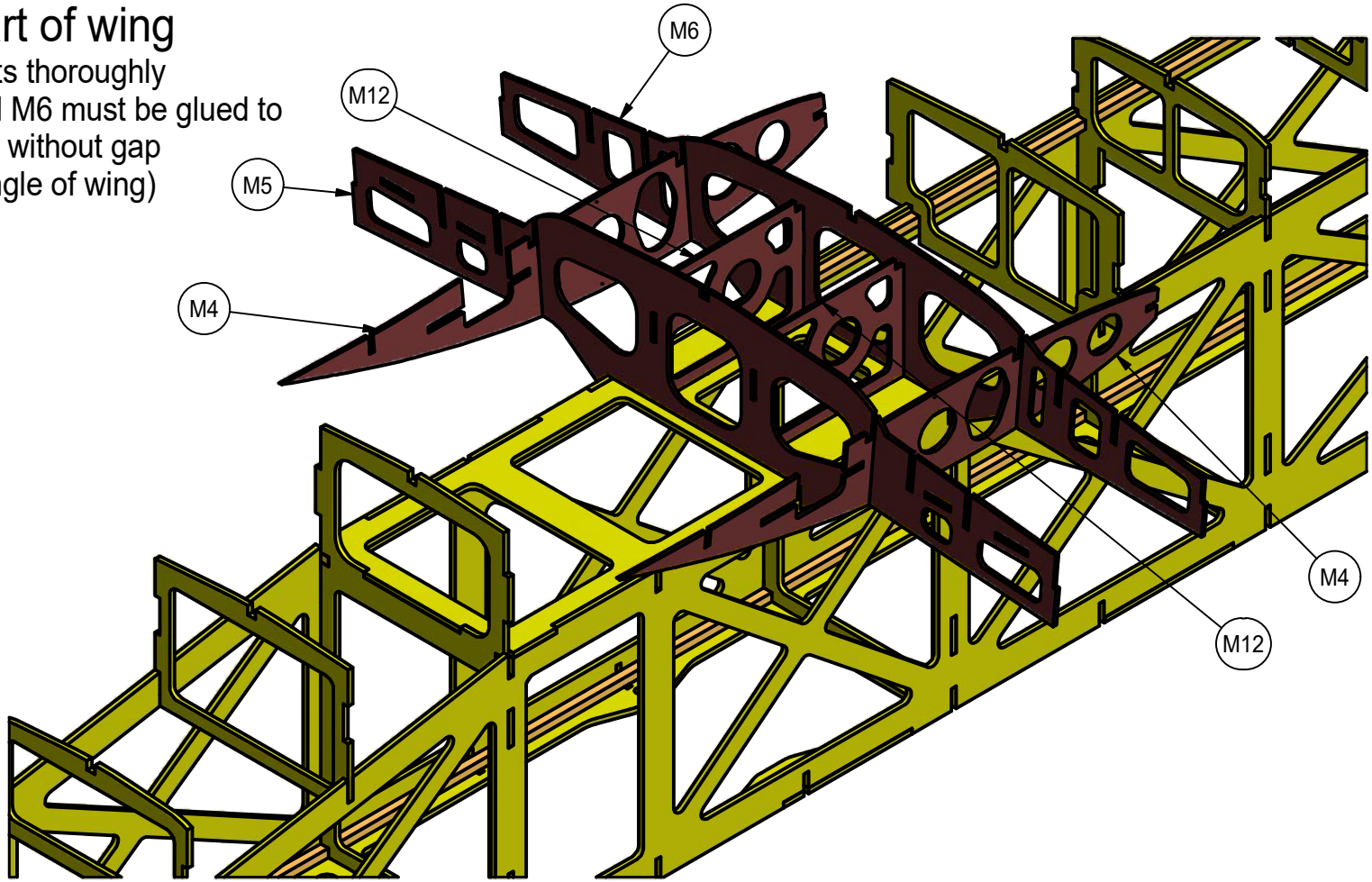


Building instructions fuselage

step 6

middle part of wing

line up all parts thoroughly
Spars M5 and M6 must be glued to
the floor-plate without gap
(for correct angle of wing)



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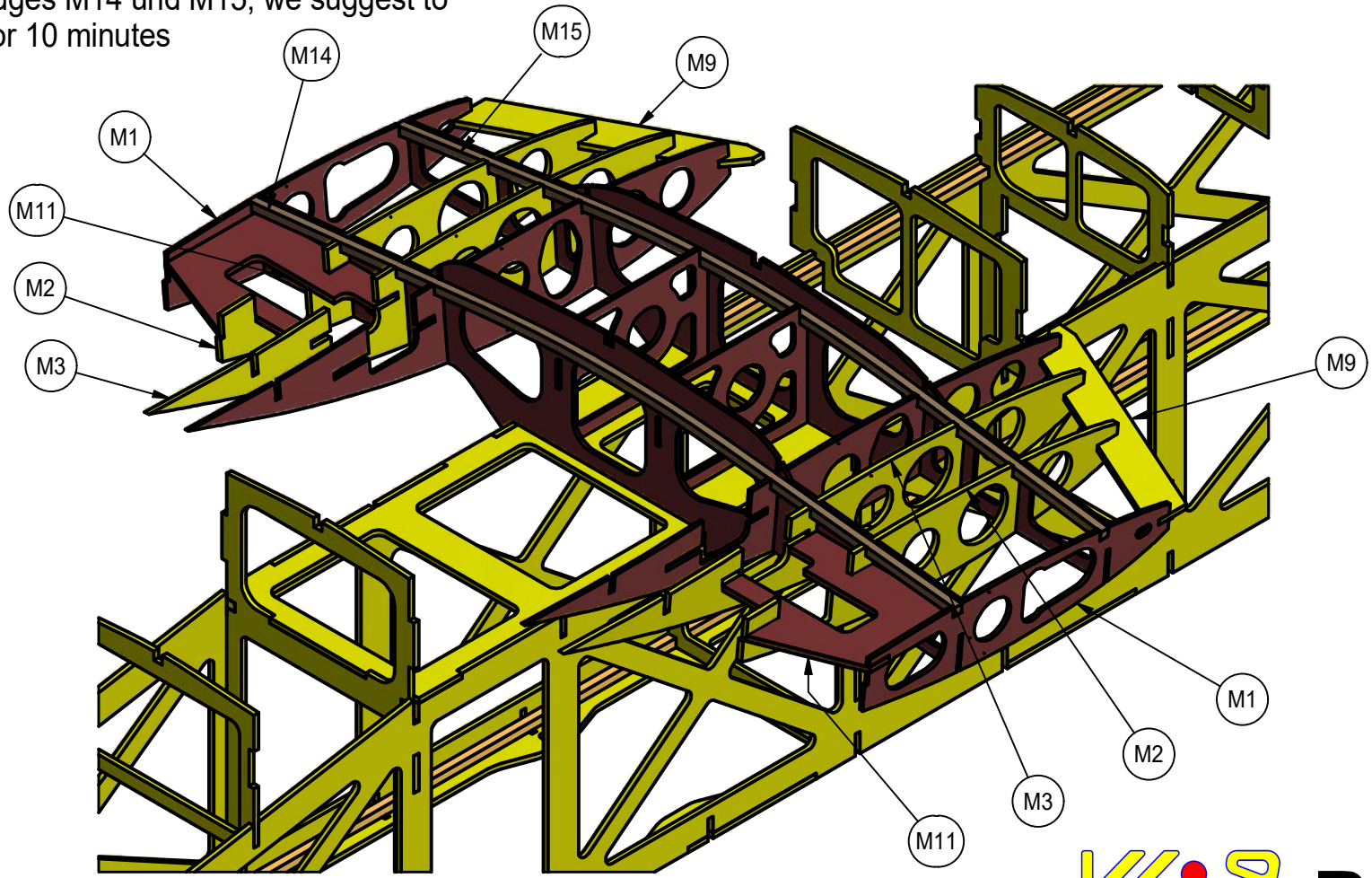
Building instructions fuselage

step 7

middle part of wing

complete the whole frame, at last glue thoroughly M14 and M15.

To bend the fir-ledges M14 und M15, we suggest to submerge them for 10 minutes



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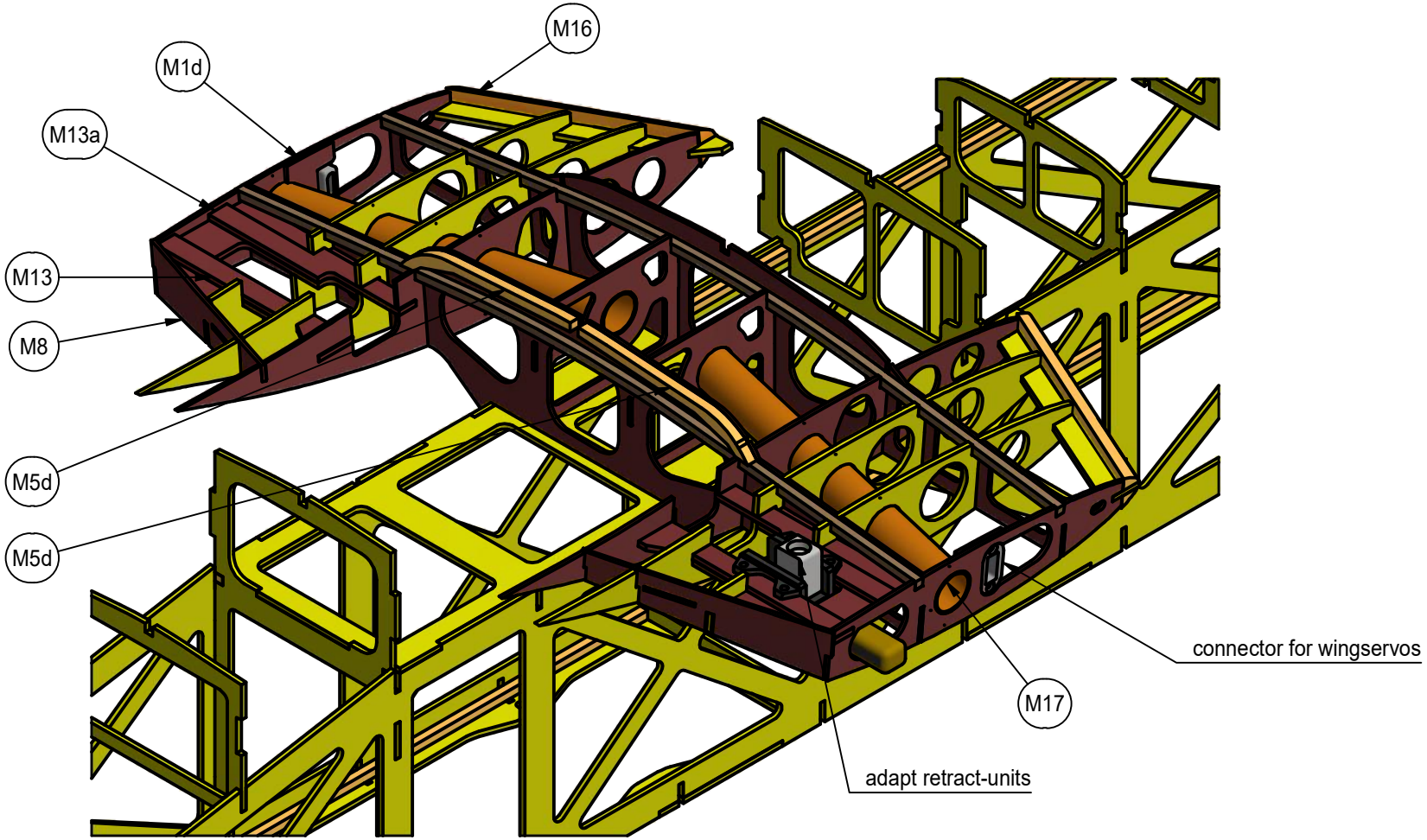
Building instructions fuselage

step 8

middle part of wing

(M5d for a bigger surface to glue the planking later on.



PC 24

Building instructions fuselage

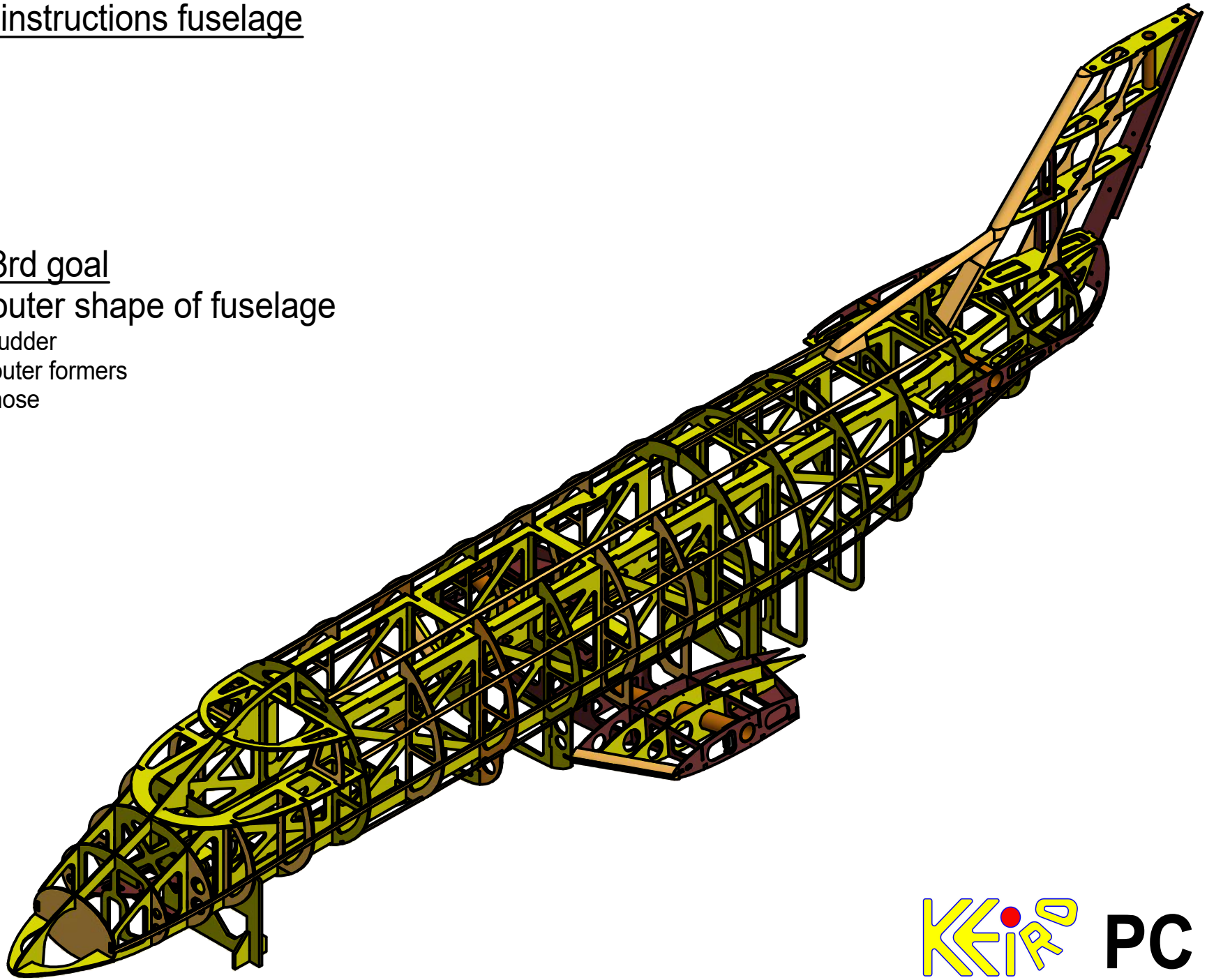
3rd goal

outer shape of fuselage

rudder

outer formers

nose



PC 24

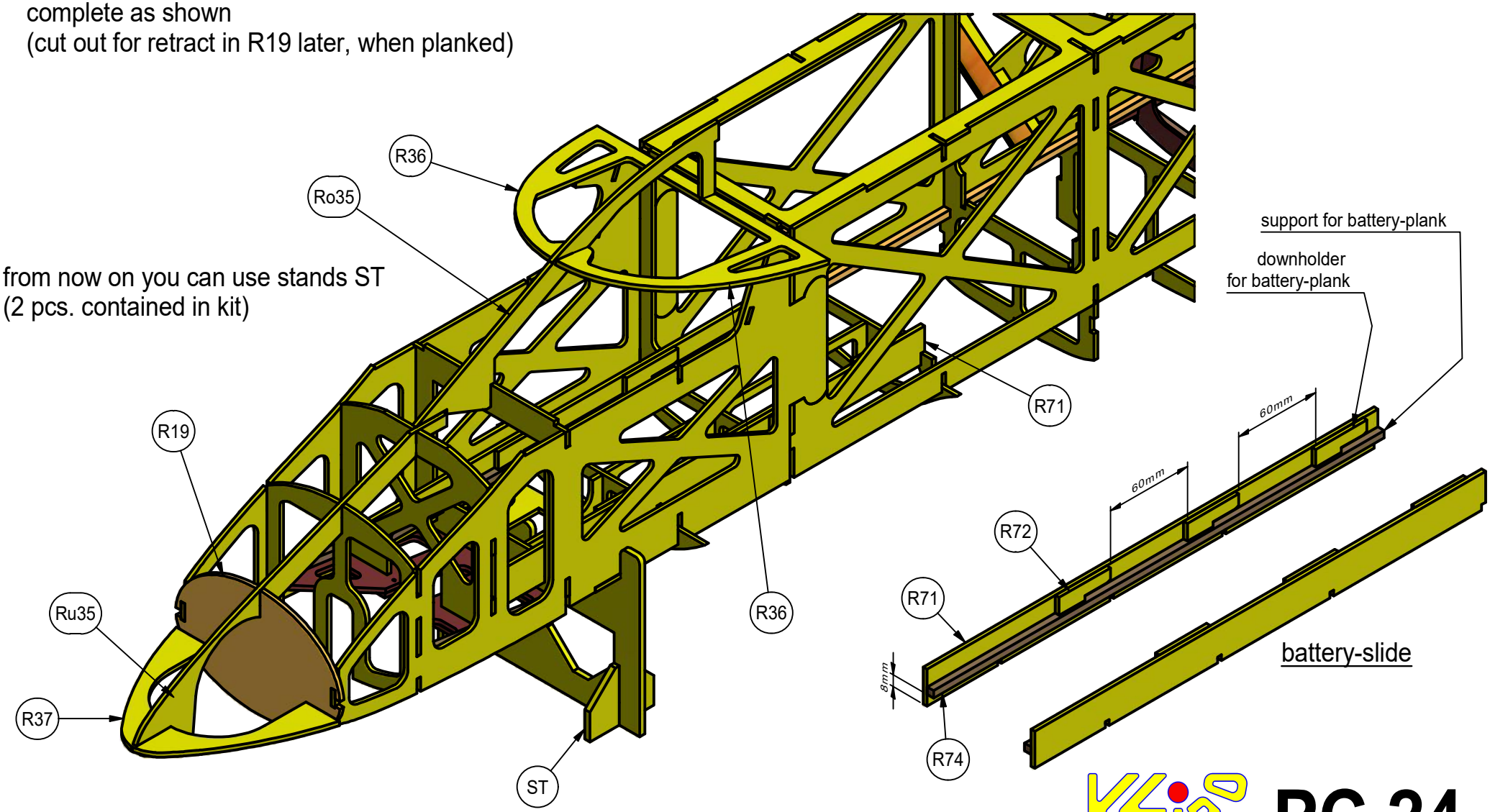
Building instructions fuselage

step 9

cockpit- and nose-area

complete as shown
(cut out for retract in R19 later, when planked)

from now on you can use stands ST
(2 pcs. contained in kit)



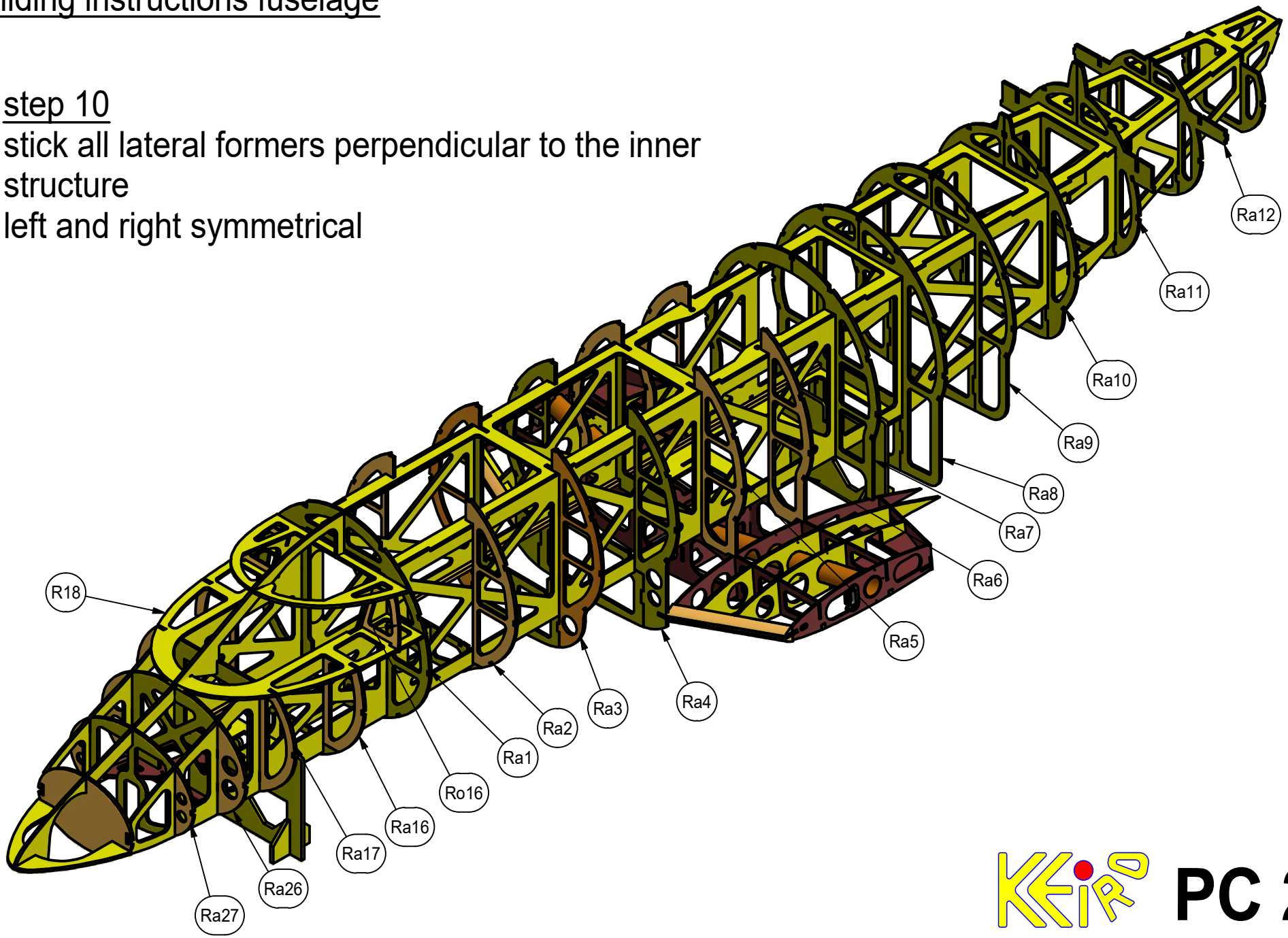
PC 24

Building instructions fuselage

step 10

stick all lateral formers perpendicular to the inner structure

left and right symmetrical



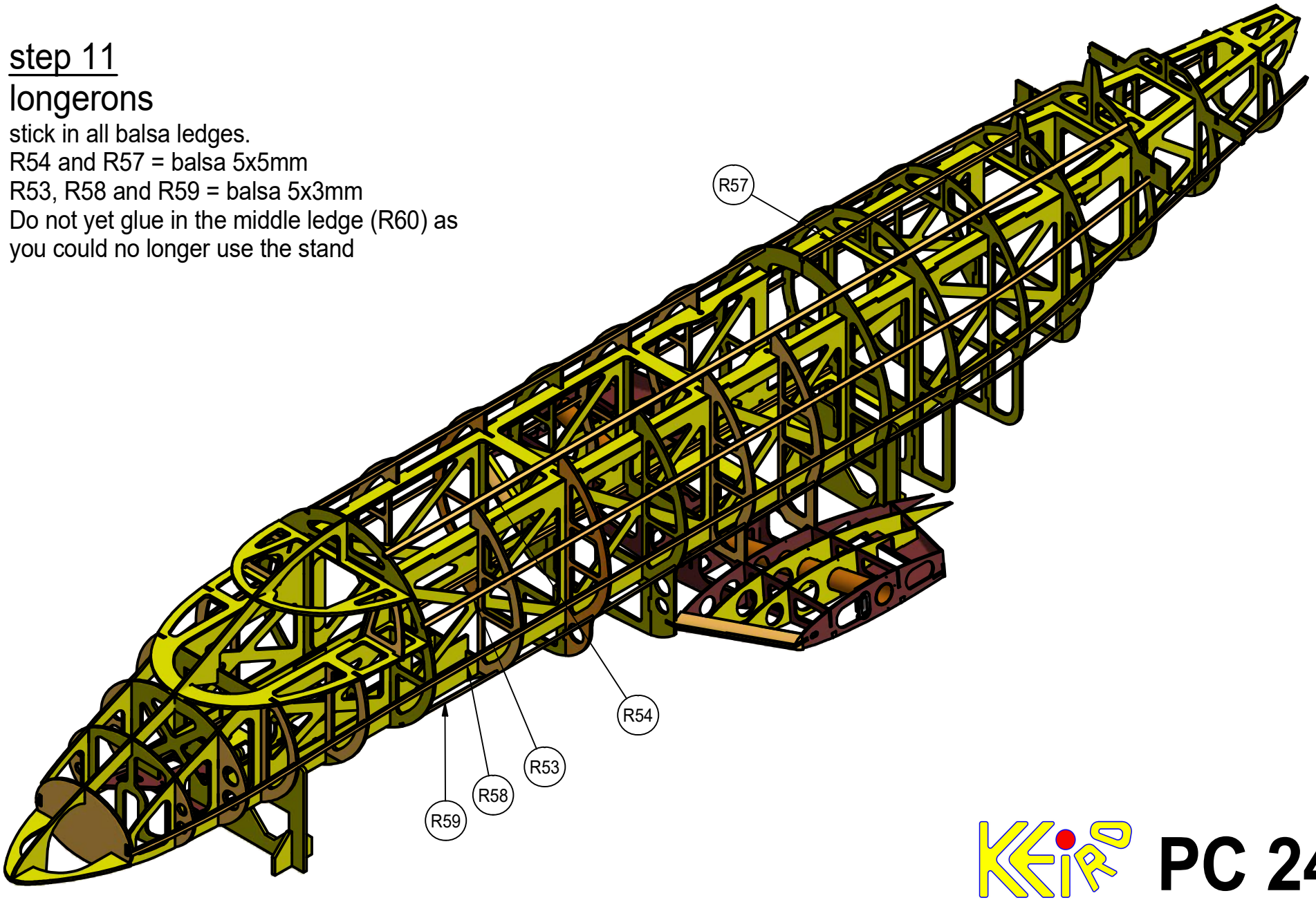
PC 24

Building instructions fuselage

step 11

longerons

stick in all balsa ledges.
R54 and R57 = balsa 5x5mm
R53, R58 and R59 = balsa 5x3mm
Do not yet glue in the middle ledge (R60) as you could no longer use the stand

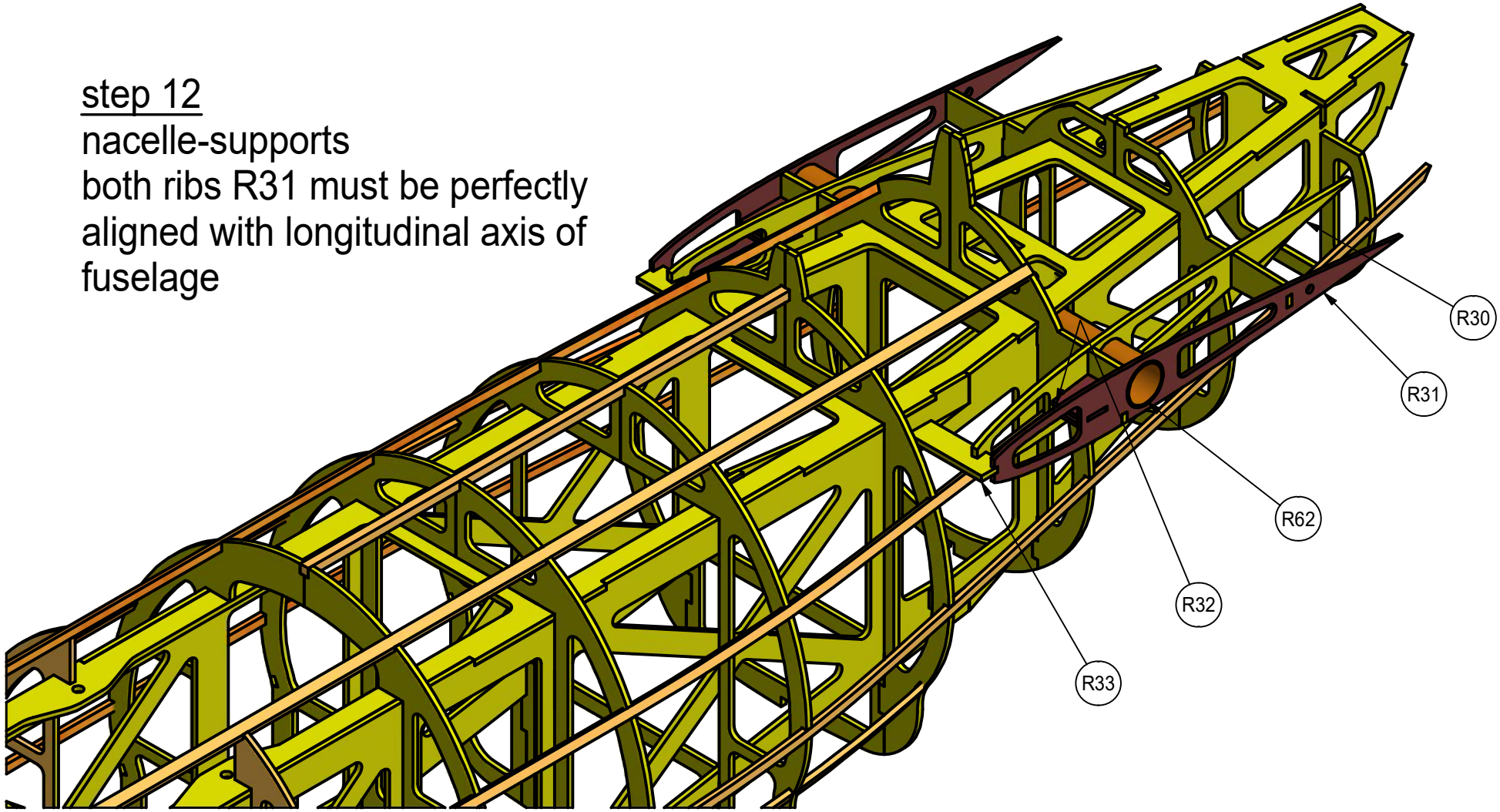


PC 24

Building instructions fuselage

step 12

nacelle-supports
both ribs R31 must be perfectly aligned with longitudinal axis of fuselage

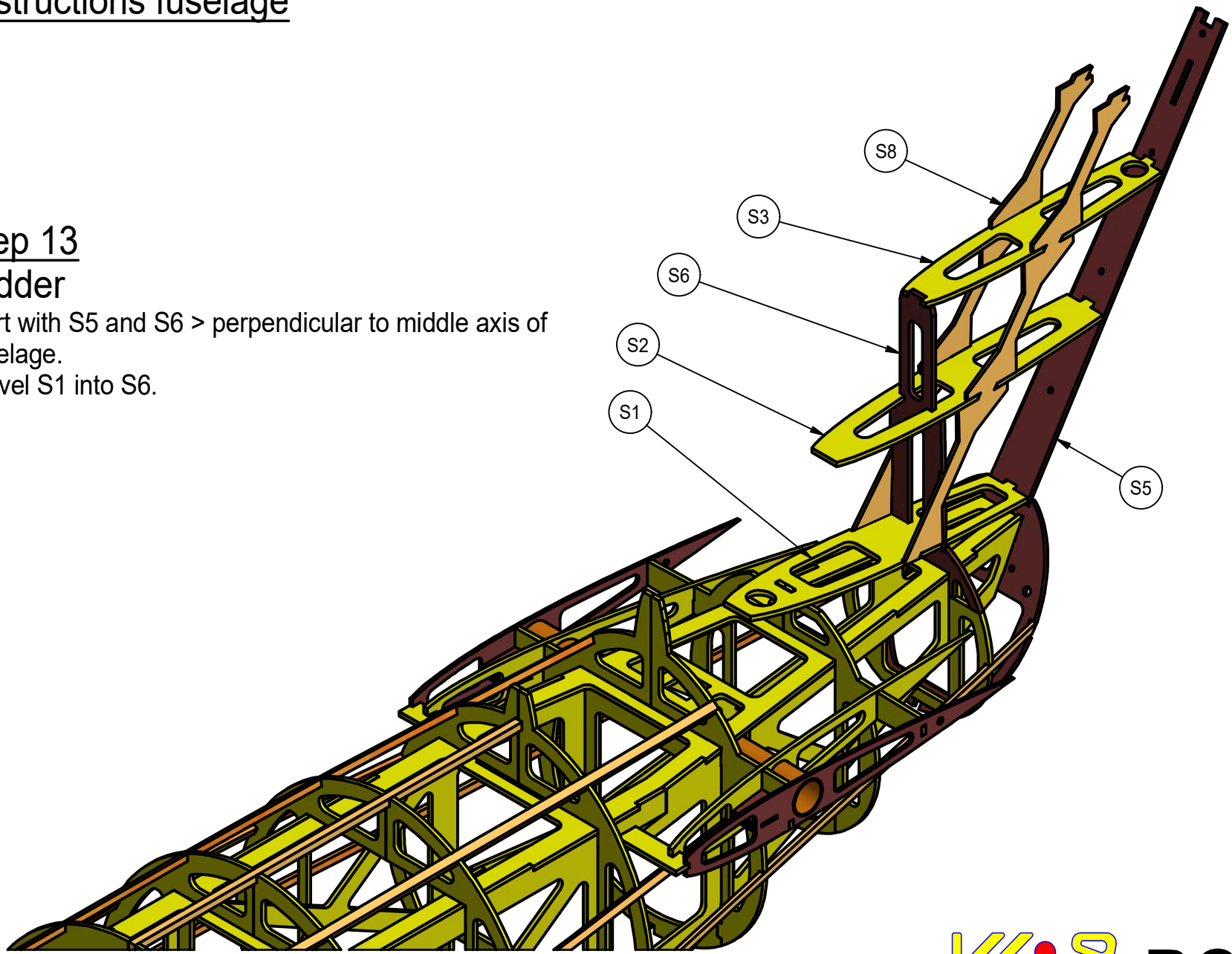


PC 24

Building instructions fuselage

step 13
rudder

start with S5 and S6 > perpendicular to middle axis of fuselage.
swivel S1 into S6.

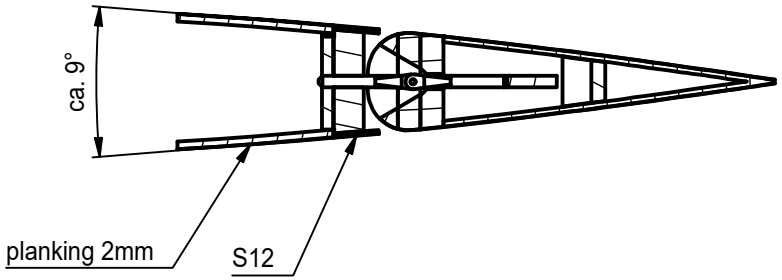


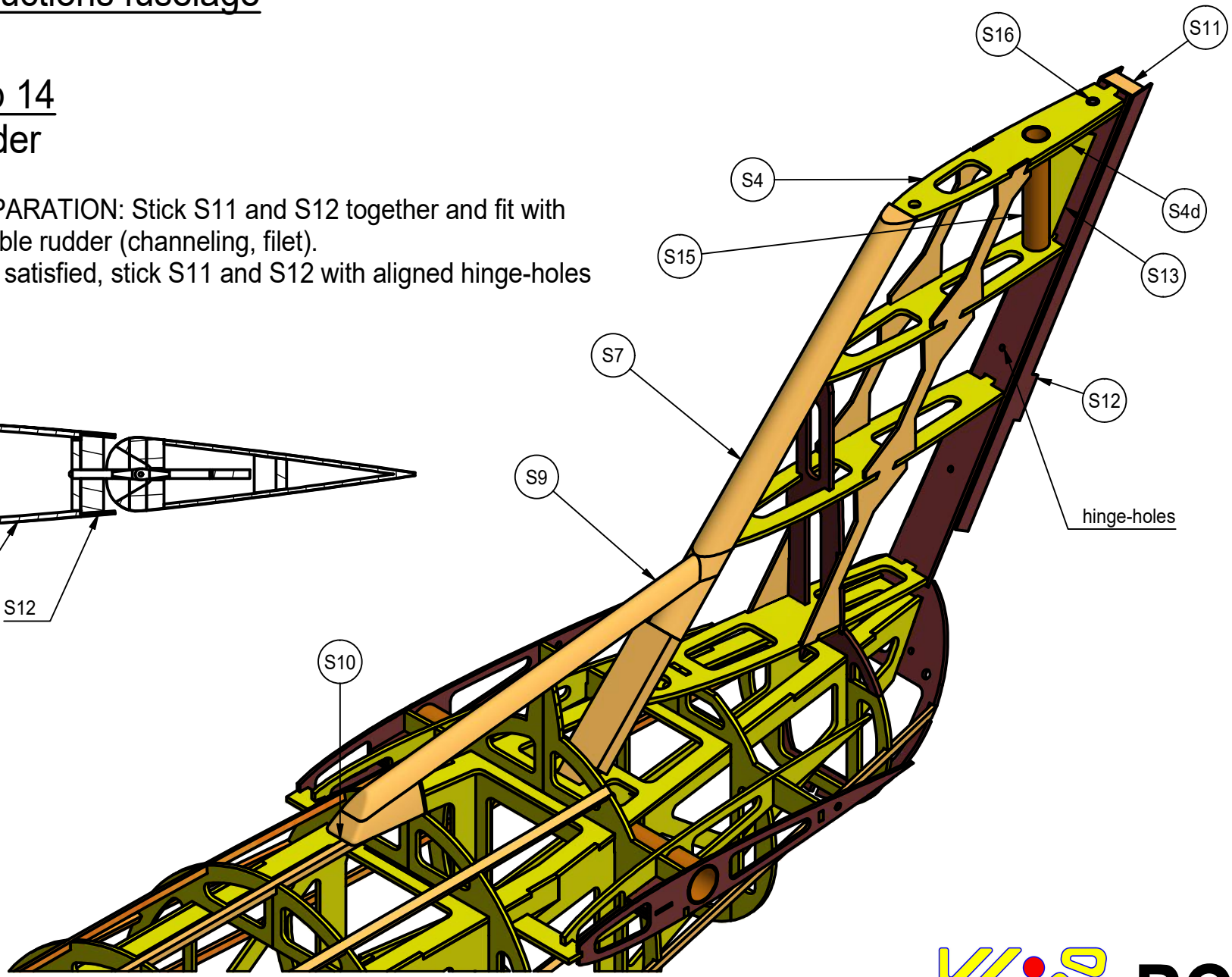
PC 24

Building instructions fuselage

step 14
rudder

PREPARATION: Stick S11 and S12 together and fit with movable rudder (channeling, filet).
when satisfied, stick S11 and S12 with aligned hinge-holes to S5





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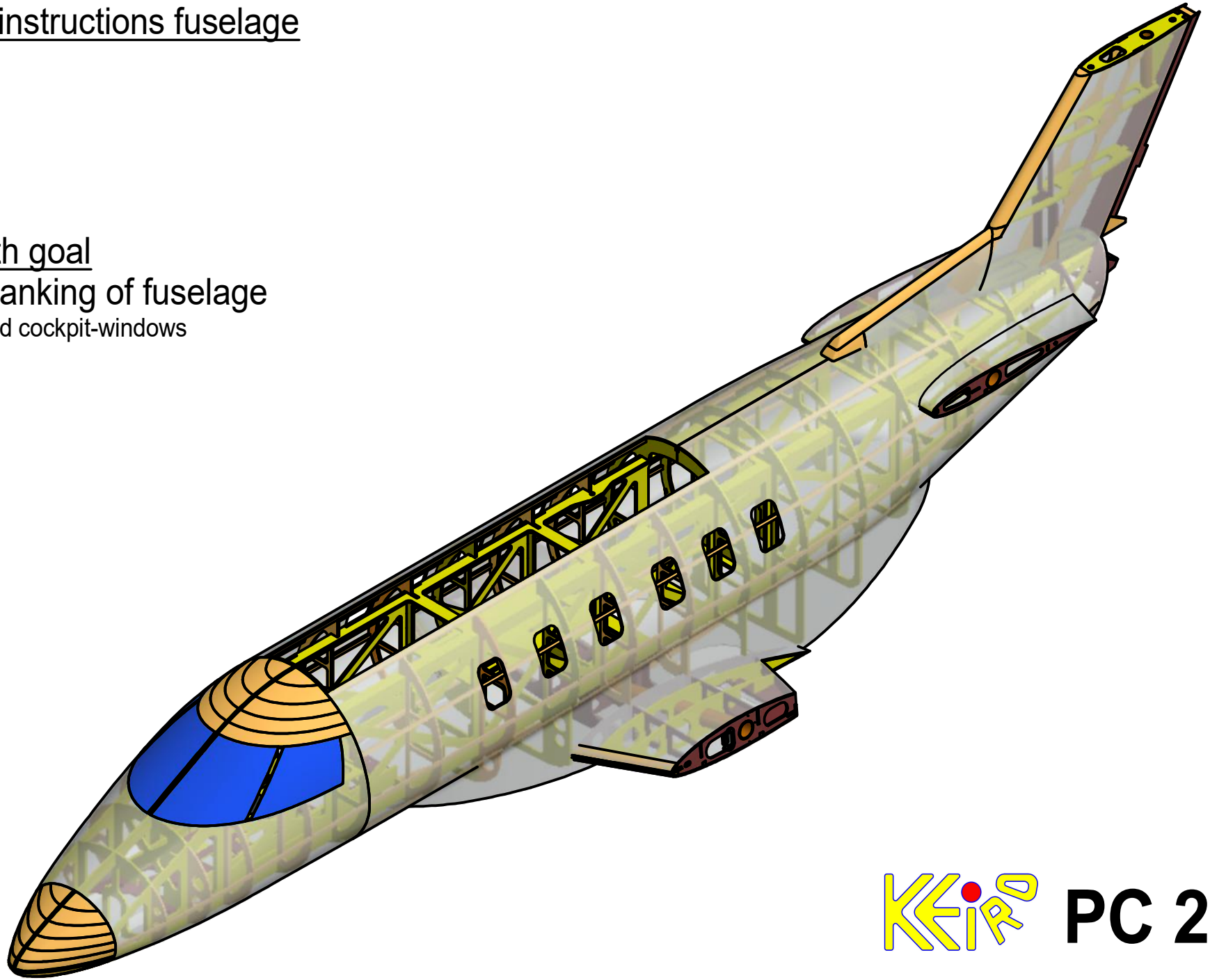
Building instructions fuselage

4th goal
planking of fuselage
and cockpit-windows



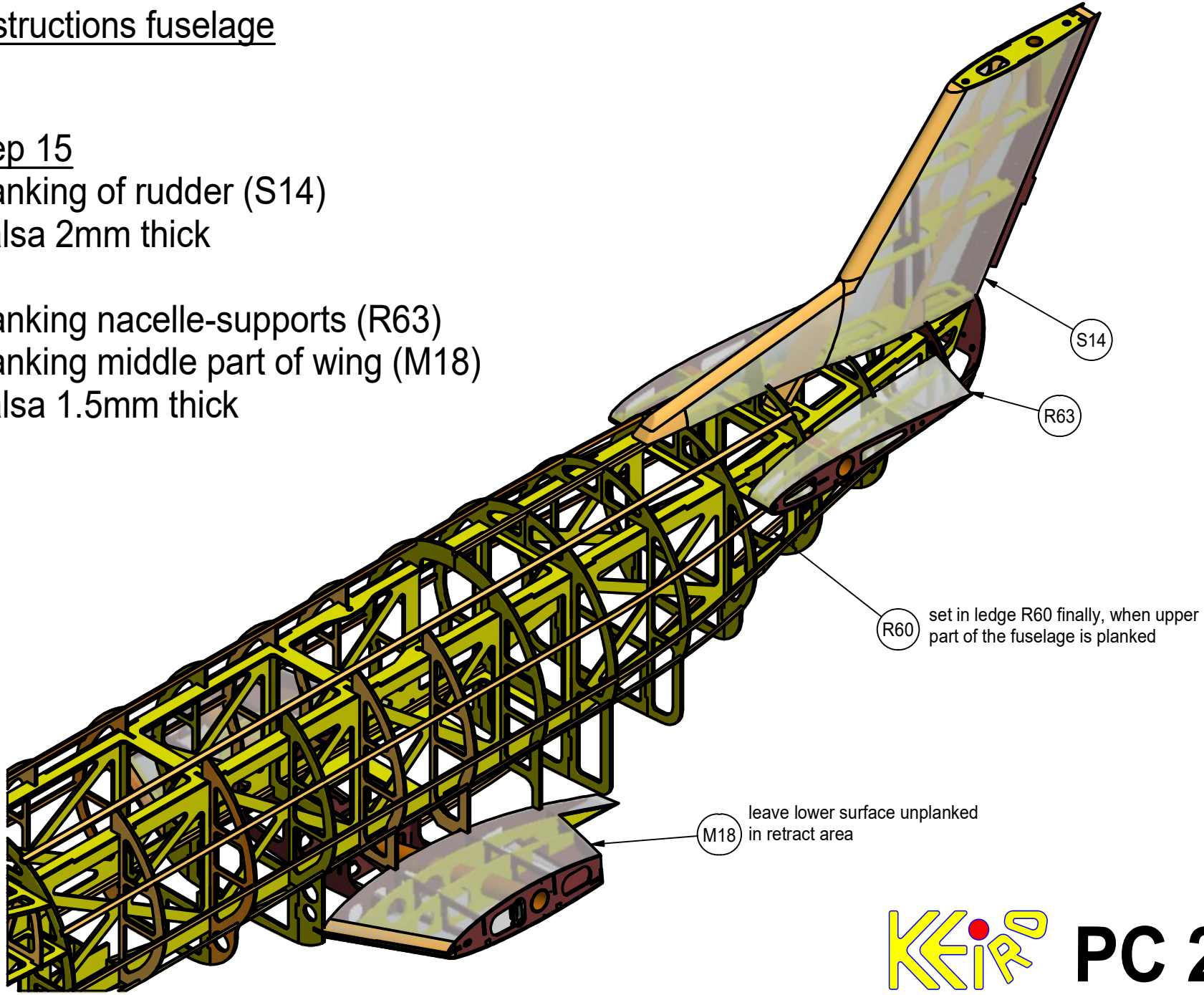
PC 24

Building instructions fuselage

step 15

planking of rudder (S14)
Balsa 2mm thick

planking nacelle-supports (R63)
planking middle part of wing (M18)
Balsa 1.5mm thick

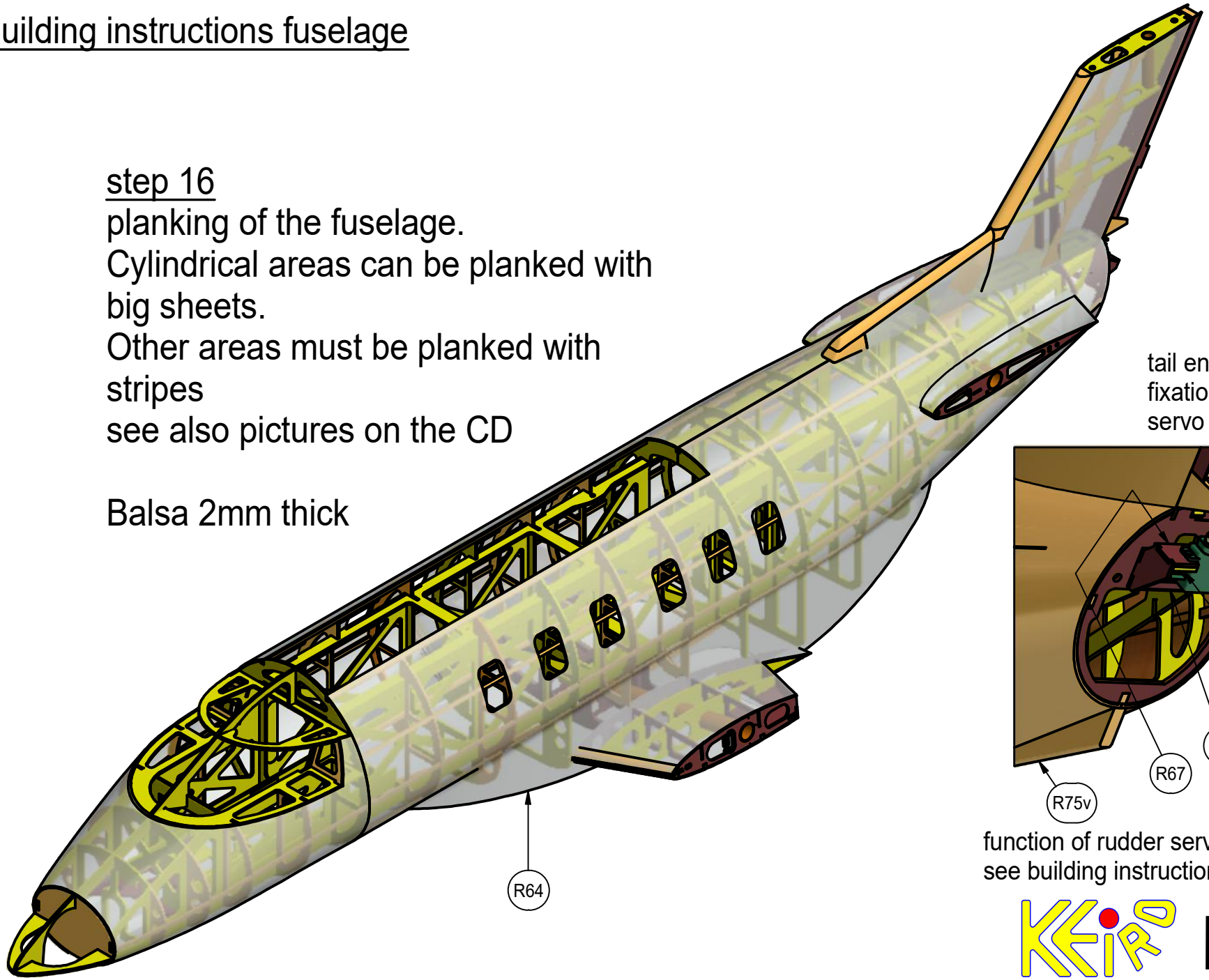


PC 24

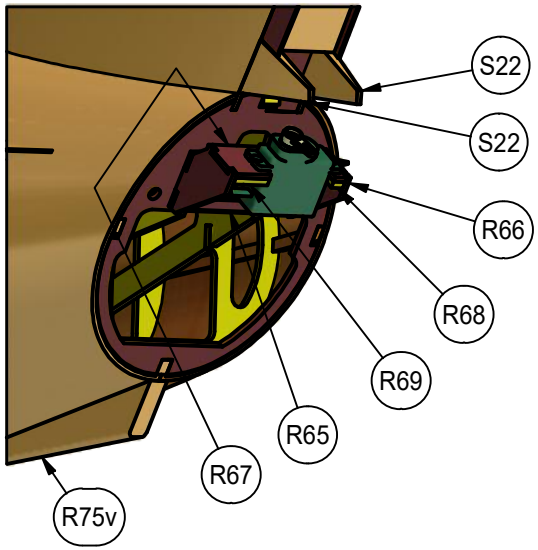
Building instructions fuselage

step 16
planking of the fuselage.
Cylindrical areas can be planked with big sheets.
Other areas must be planked with stripes
see also pictures on the CD

Balsa 2mm thick



tail end showing fixation of rudder servo



function of rudder servo
see building instruction of rudder

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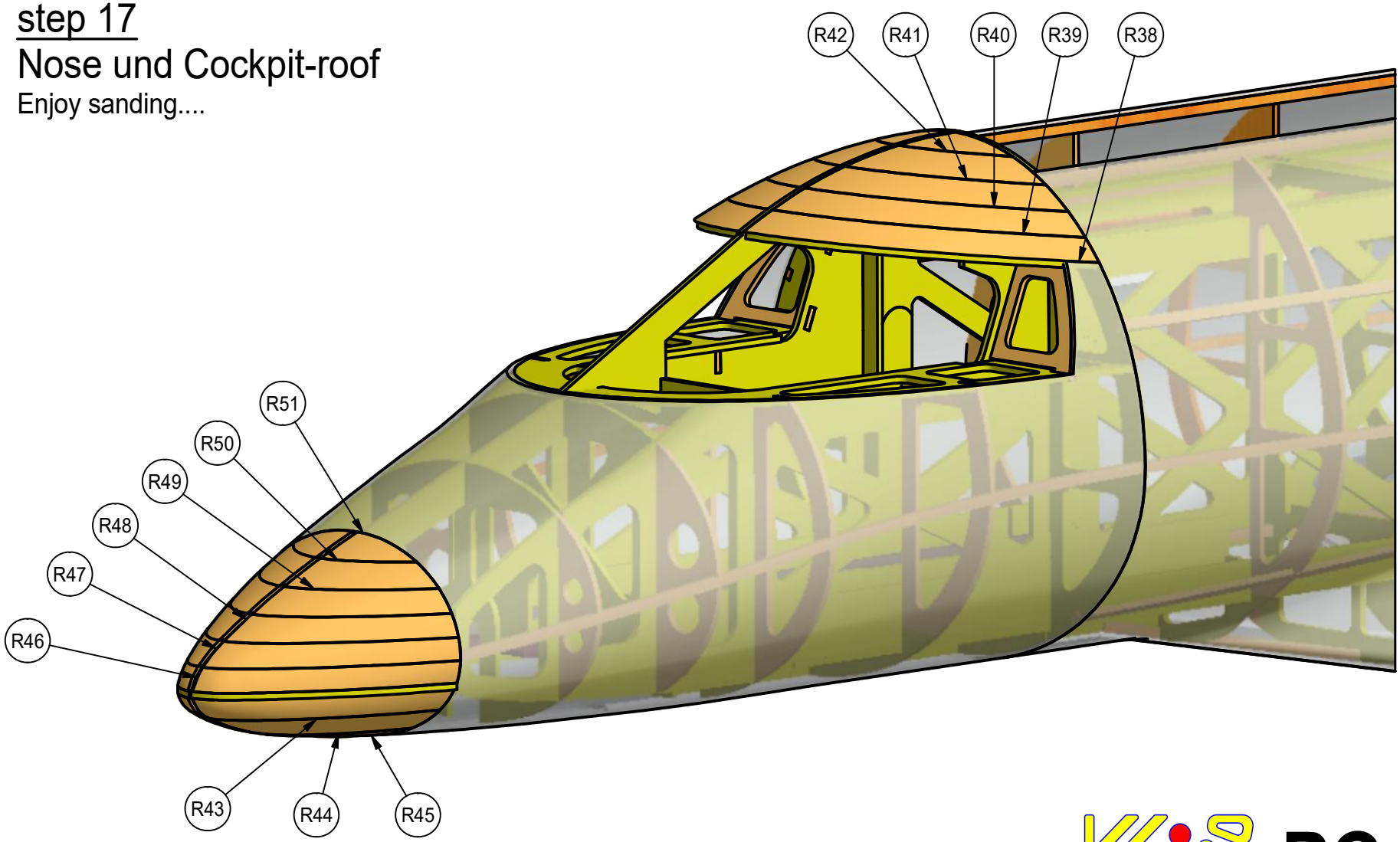
Bauanleitung Rumpf

step 17

Nose und Cockpit-roof

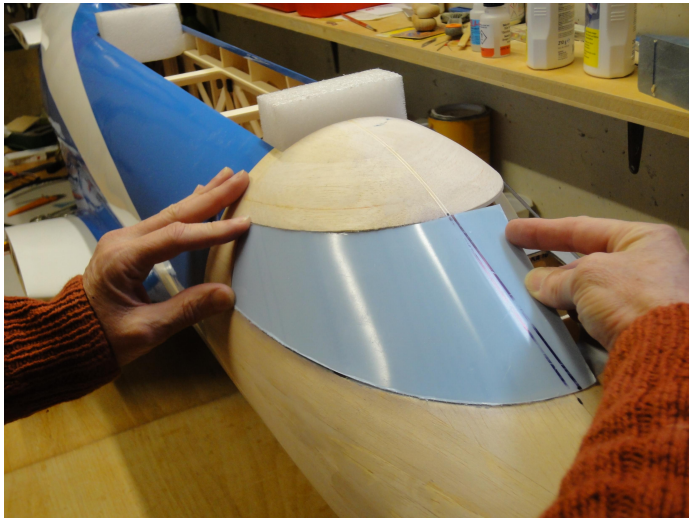
Enjoy sanding....



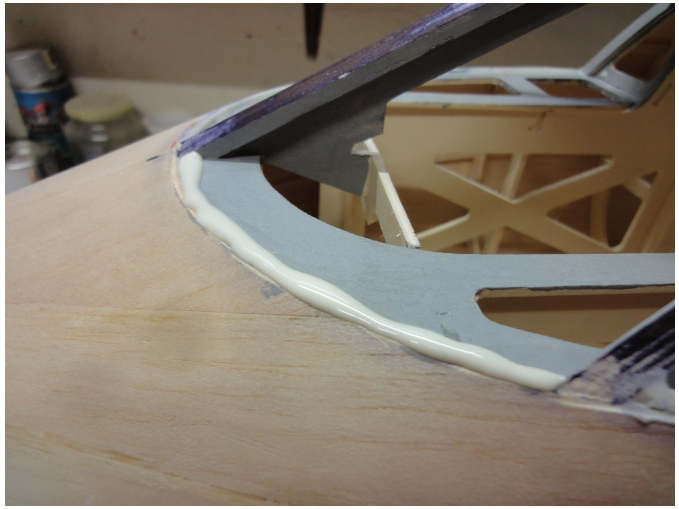
PC 24

Building instructions fuselage

step 18 Cockpit-window (2 halves left and right)

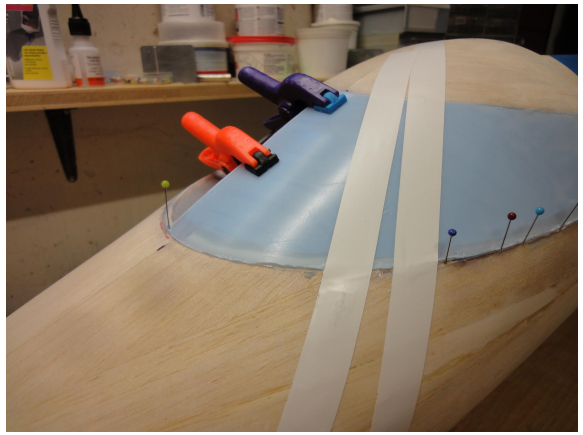


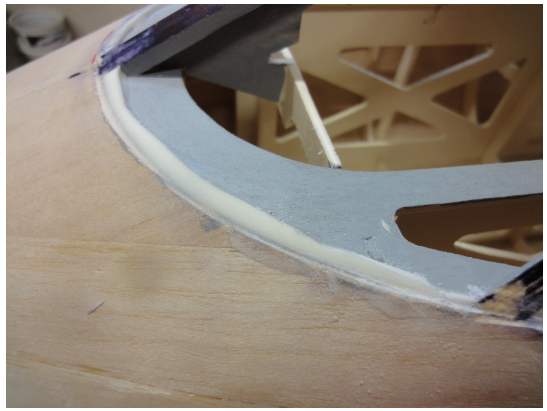
1. seating glass, don't remove protecting foil



2. thickened epoxy resin

3. fix glass with protecting foil



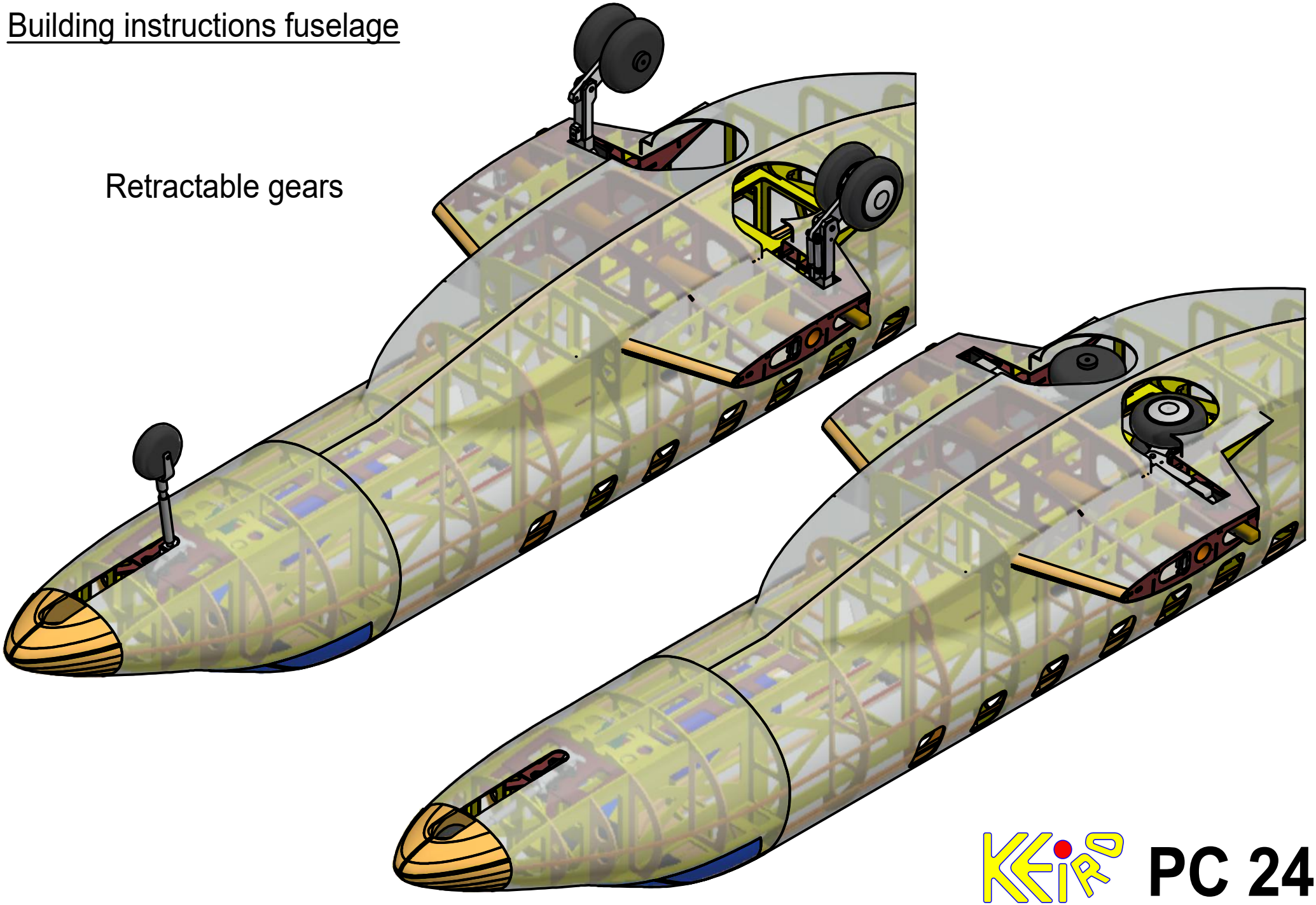


After resin has cured, you can remove glass and have a perfect glueing bead. repeat other sides

we use PATTEX contact-glue to stick the glass to the bead.

Building instructions fuselage

Retractable gears

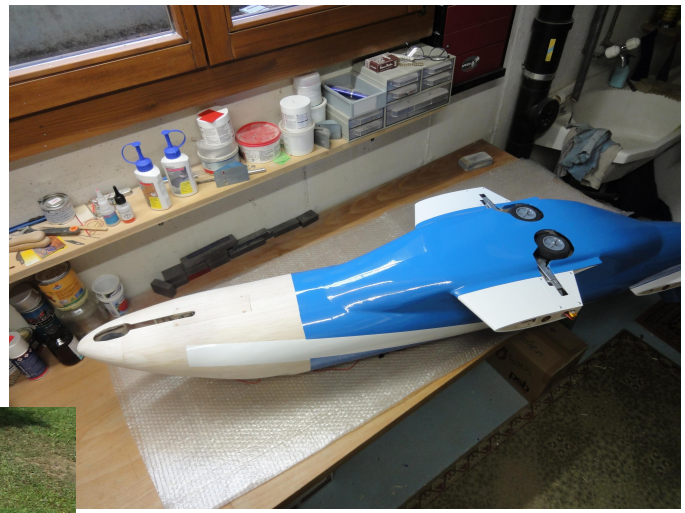


PC 24

Building instructions fuselage

There are different methods for finishing your PC-24
- heat shrinking foil directly to the wood (very light, but delicate)
- lightspan paper to the wood, then heat shrinking film (less delicate)
- glassing all wooden parts and spray finish (heavy, but very sturdy)

For the prototype I used heat shrinking foil directly on the wood > here some pictures



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