



AVIATIONTOYS.NL



Hello modeller!

This kit is designed for the real balsa enthusiast, we hope you will have fun during the build. The DFS Habicht kit is not for beginner builders, although when going through this manual step by step it is possible to create an awesome build! Please read all instructions carefully, when there's something not clear please contact us directly; info@aviationtoys.nl or through our facebook group; Aviation Toys.nl Also messenger can be used to contact us; Vincent Merlijn.

The DFS Habicht is definitely designed to fly, and our standard is that it should fly very well, we take pride in this. The Habicht will be most enjoyed at the slope, add some extra ballast when it is windy, you will have lots of fun and you are always in control. High starts are also no problem, taking a thermal is possible so you can make duration flights. Mild acro is no problem at all. The ballast box allows to shift your ballast, this will alter cg. More forward cg is better for sloping, more stable to. Going backwards makes her more sensitive for thermals and increases agility.

For the covering process some experience is needed, especially when you go old skool; dope and tissue. This will give that "nostalgica look" which will show the construction. Modern ora cover light is recommended when you want a shiny, more modern and scale like finish. The kit will need 4 servo's, 2 for the ailerons, one for rudder and one for elevator, we highly recommend the CHAServo DS06, available in our web shop www.aviationtoys.nl

Technical specifications;

Wingspan; 145 cm

length ; 70 cm.

All up flying weight approximately ; 350-400 grams with out ballast.

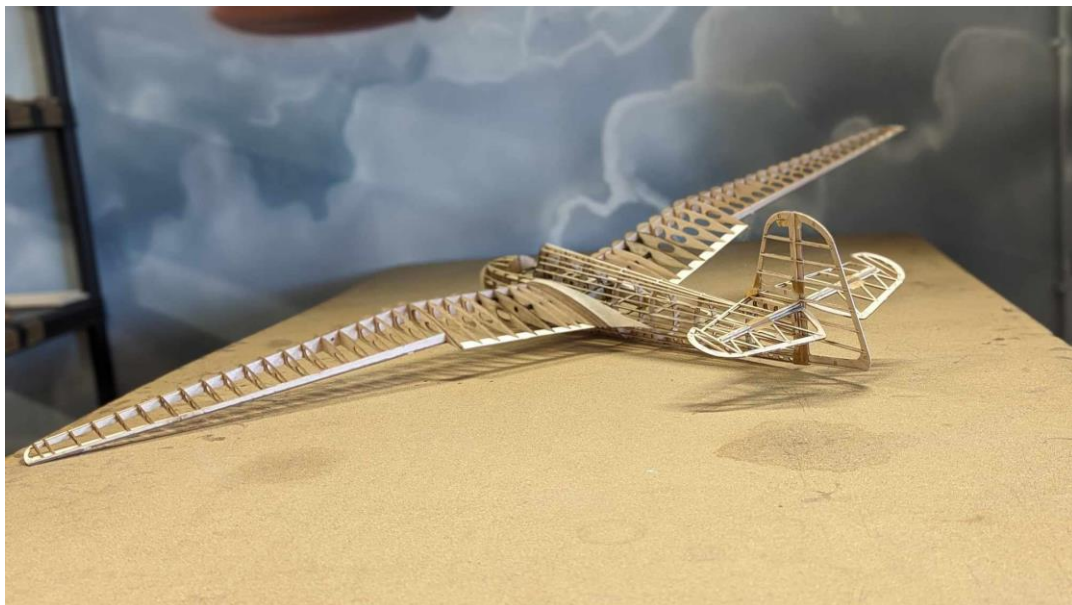
Basic center of gravity ; 5.5- 6 cm measured from leading edge.

We are looking forward to see you having fun with this kit, during the build and of course while flying, please do share it with us in our facebook group, Aviation Toys.nl

Vincent Merlijn & Team aviationtoys.nl

DFS HABICHT MANUAL

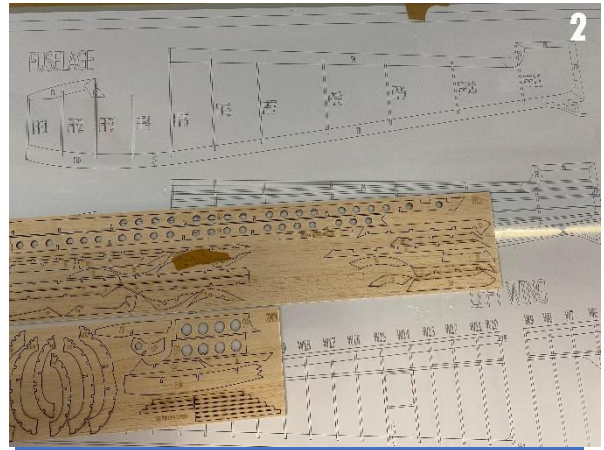
By Aviationtoys.nl



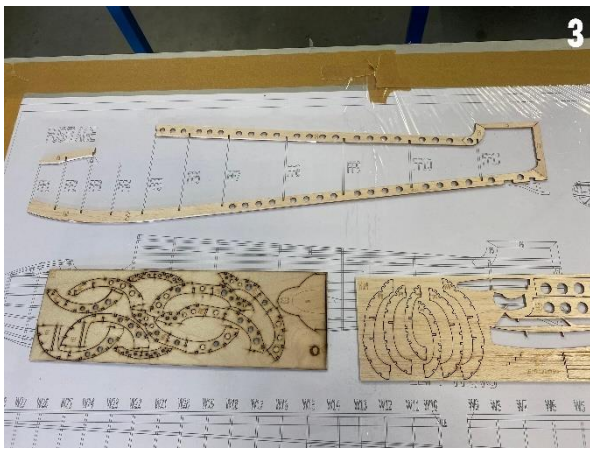
Fuselage



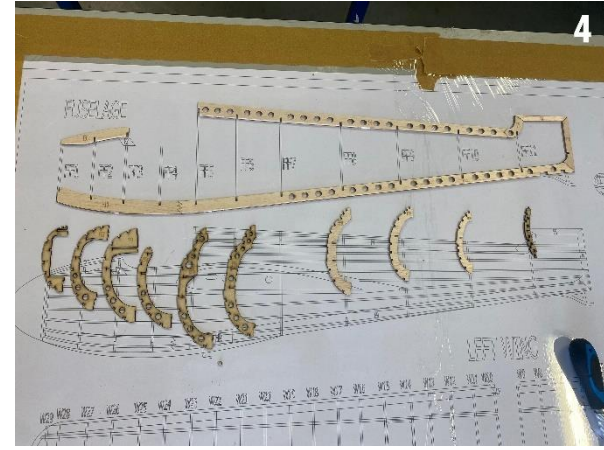
All parts.



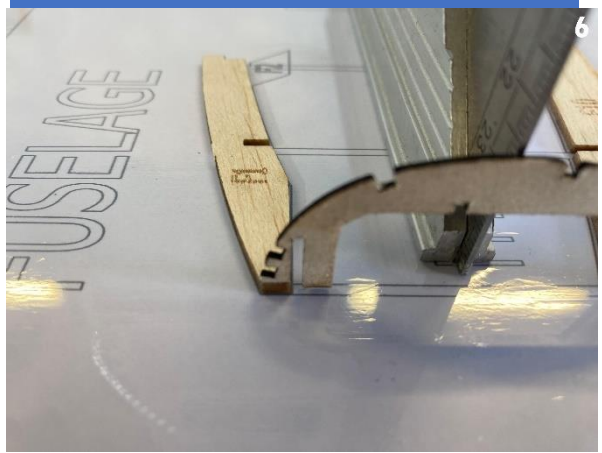
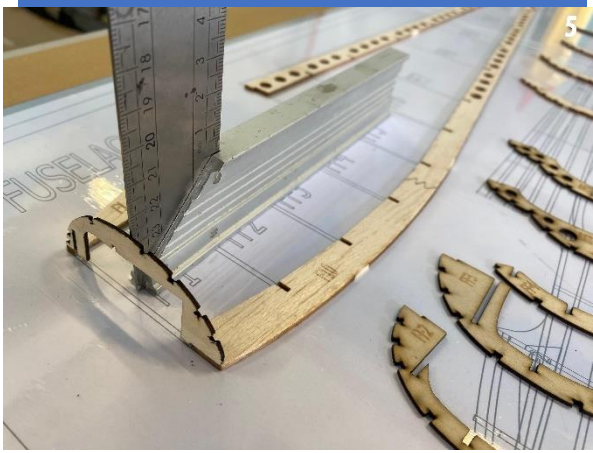
We start with the fuselage. On the picture you can see the sheets with the parts.

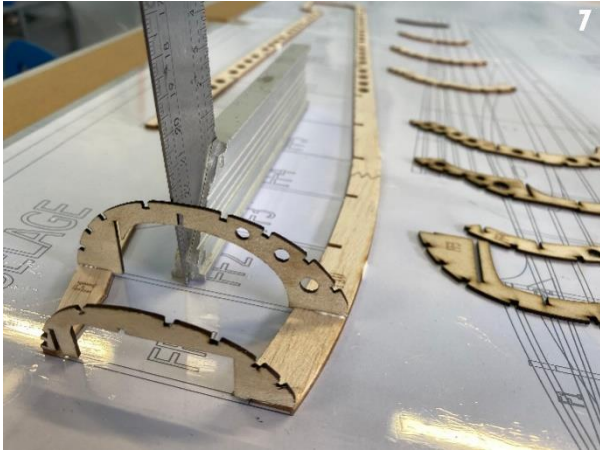


Lay out and glue the parts F1-F7 as shown on the picture.

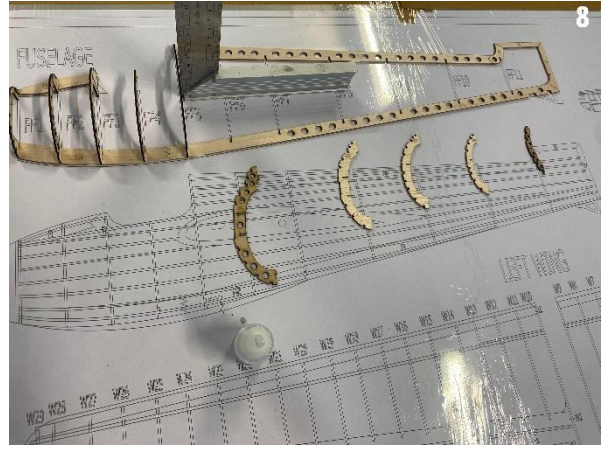


Next are the formers, FF1-FF11.

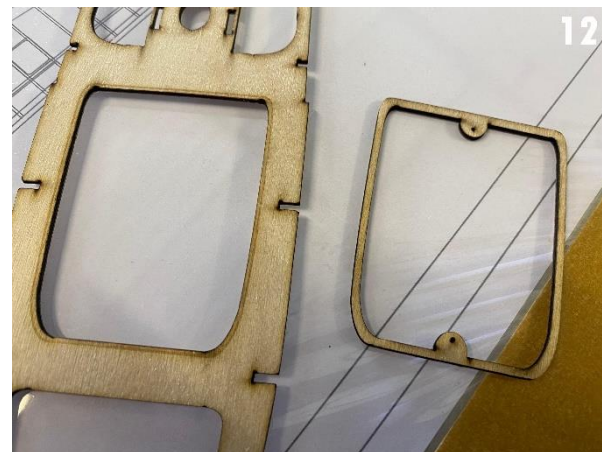
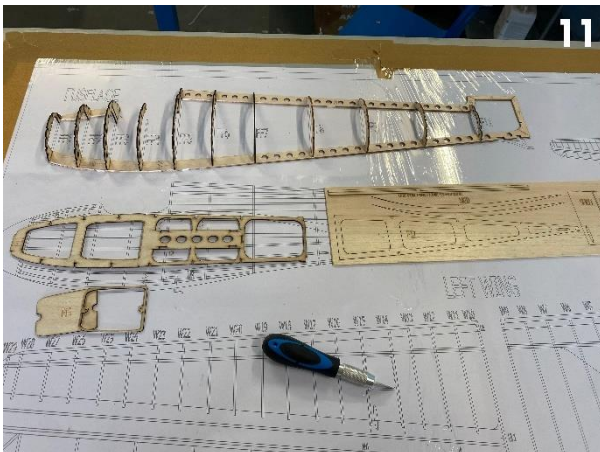
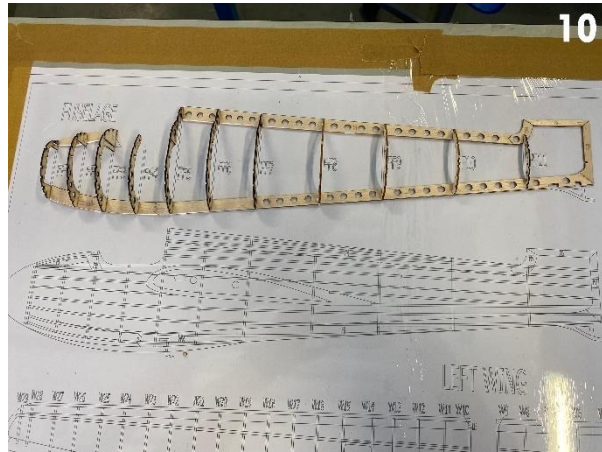
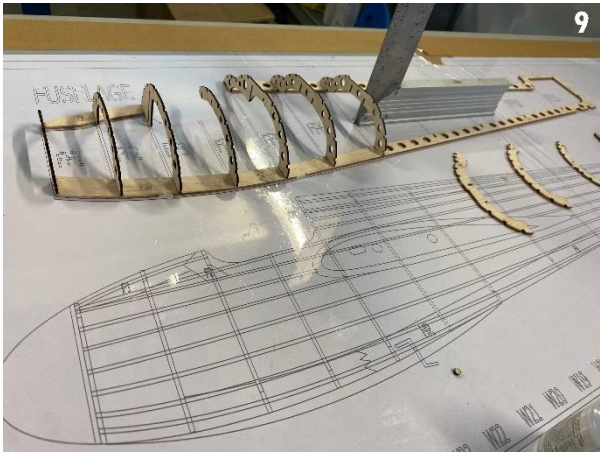


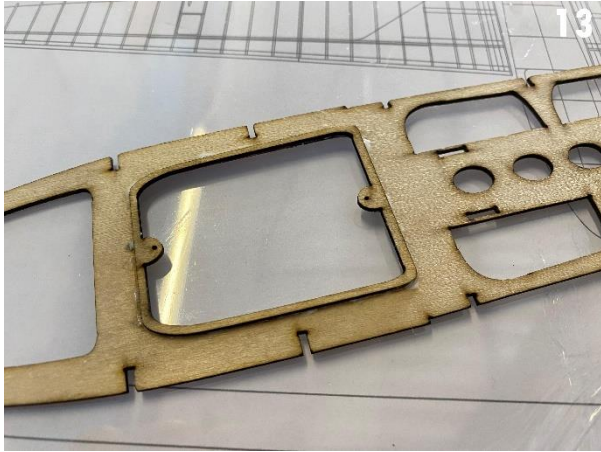


Check before you glue all formers, they must be square and line up correct.

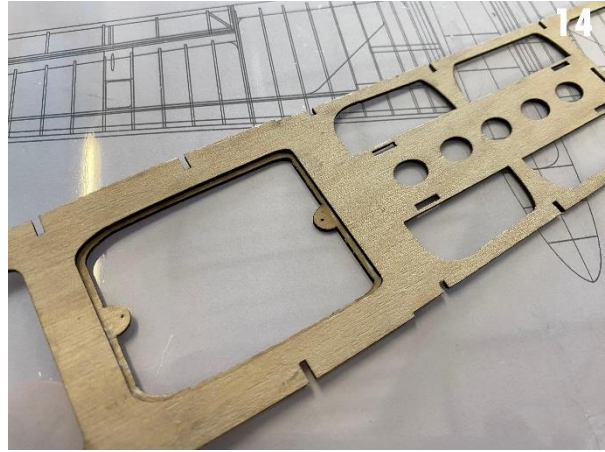


Each former must be placed square and correct, keep checking before adding glue.

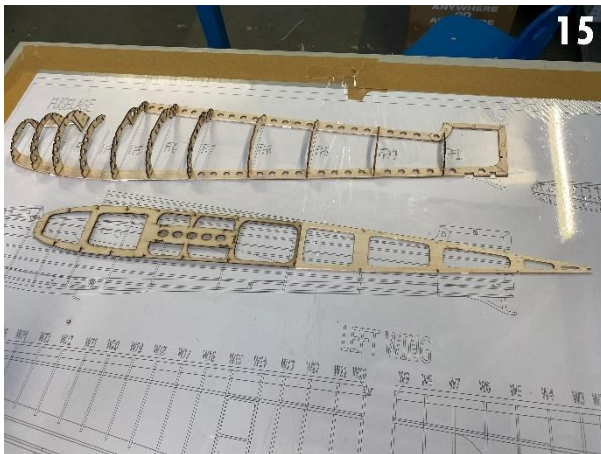




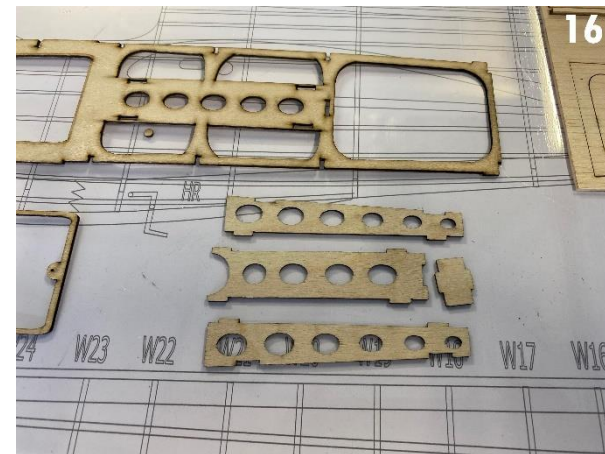
Glue F15 to the bottom side of F14, as shown on the picture. There is a lasered line as guidance.



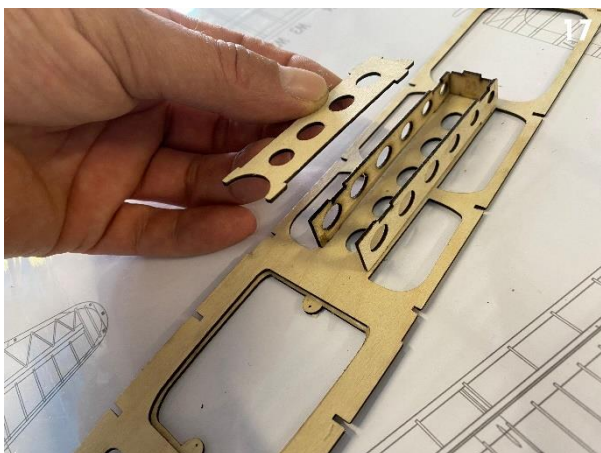
Flip the parts, it should look like this.



Glue the balsa part F12 against the plywood part F14 as shown on the picture.



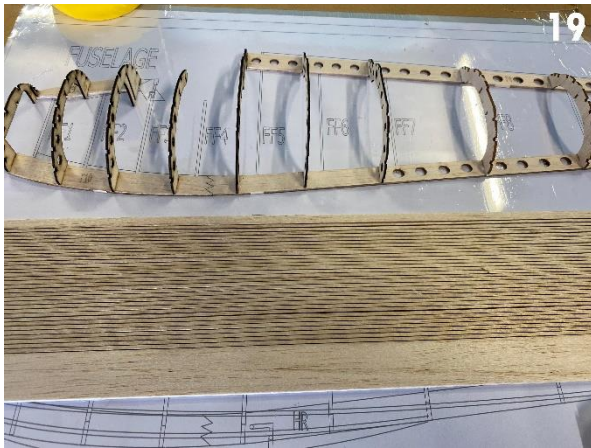
Now it is time for the ballast box, made from parts B1(2x), B2 and B3T, you see these parts on the picture.



You slide in the notches of the parts B1 and B2 into part F14, then add glue. Part B3T is added last.



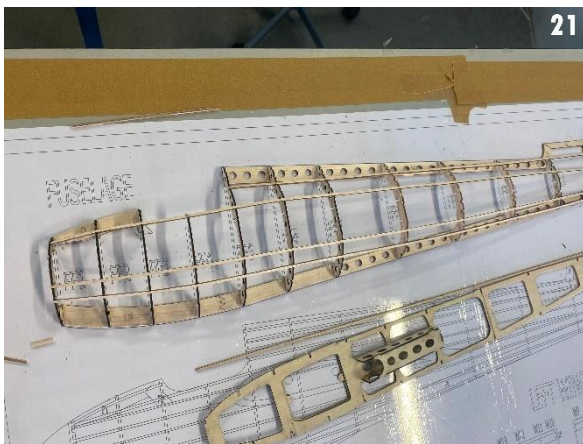
Make sure the opening is pointing towards the nose.



Before we go further we need the stringers.



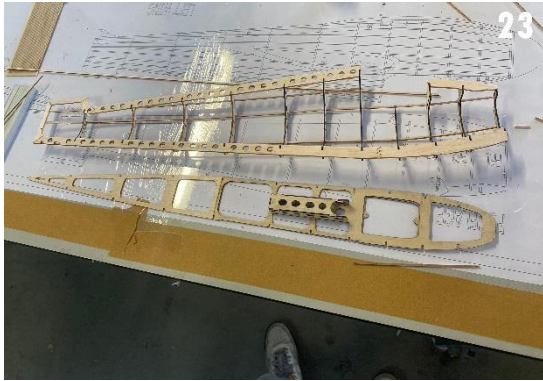
Not all stringers are glued to the full length, There will be cnc parts(wing fairing) that will be placed later.



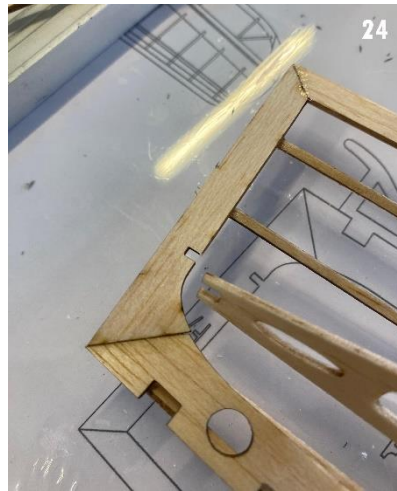
Take good notion in which notches these stringers are glued over the full length of the fuselage.



Make sure the fuselage half is absolutely flat on your building table. Also here you can see in which notches to glue these stringers. Do not glue the rest of the stringers yet!



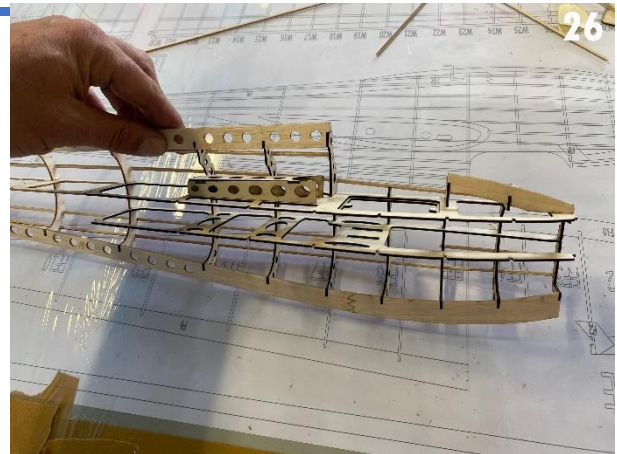
The first horizontal former complete with ballast box and balsa part F12 and the fuselage half. The fuselage half is taken from the table and turned so you see the inside the fuselage. We are going to join these parts together.



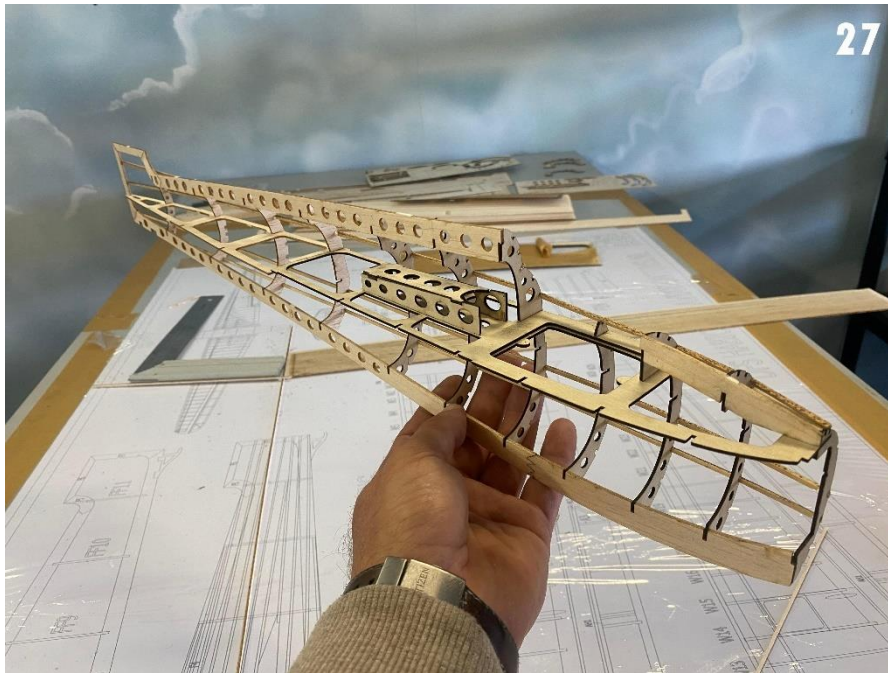
Take good notion to start at the tail, there's a tiny notch from where we start.



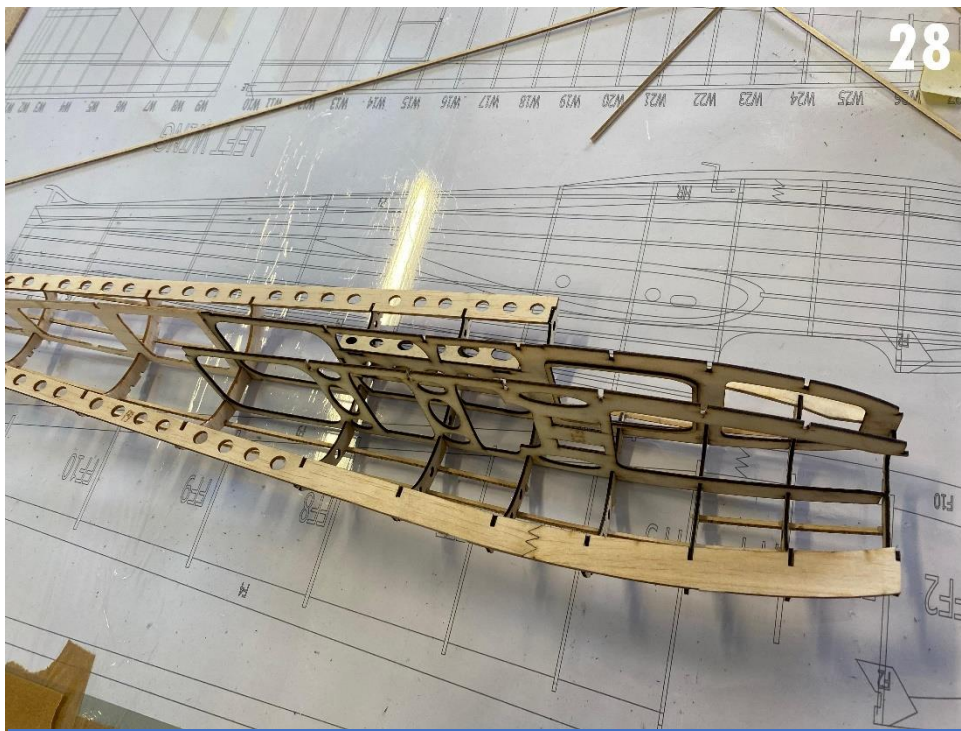
It takes some fiddling, but slide the horizontal former into each slot in the vertical formers. Sometimes a bit of sanding is needed to make them fit proper. Be gentle and take your time. Check for a correct fit before adding glue.



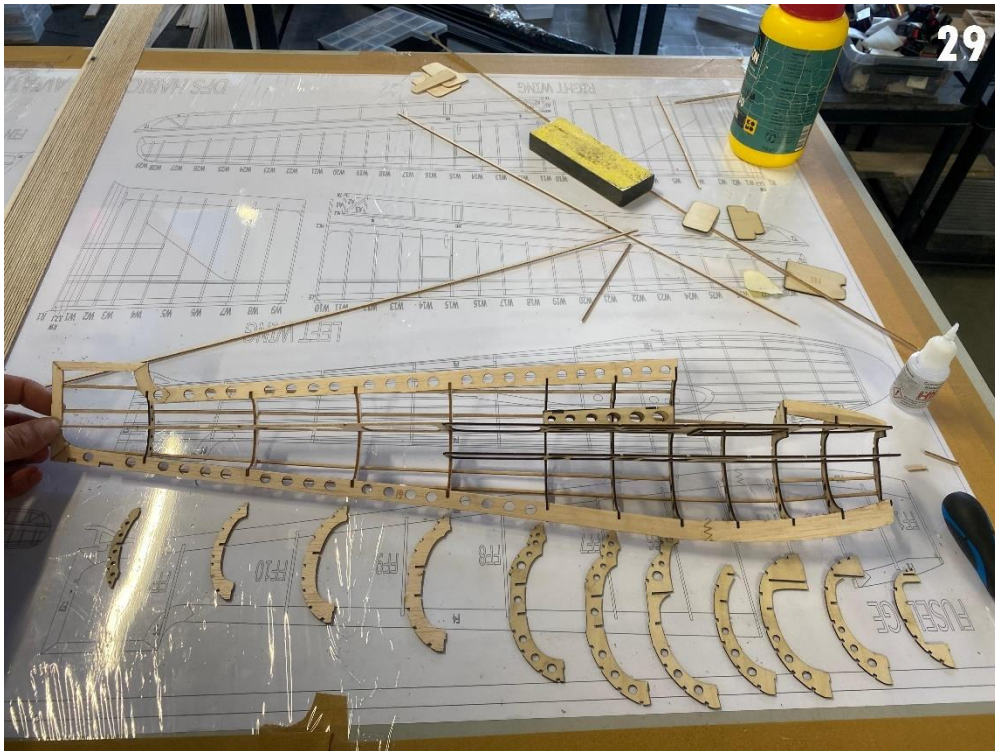
When you have placed and glued the first horizontal former (top), we can continue with horizontal former number two, part number is F11. This one doesn't go all the way to the tail, as you can see on the picture. Also here take your time and keep checking before adding glue.



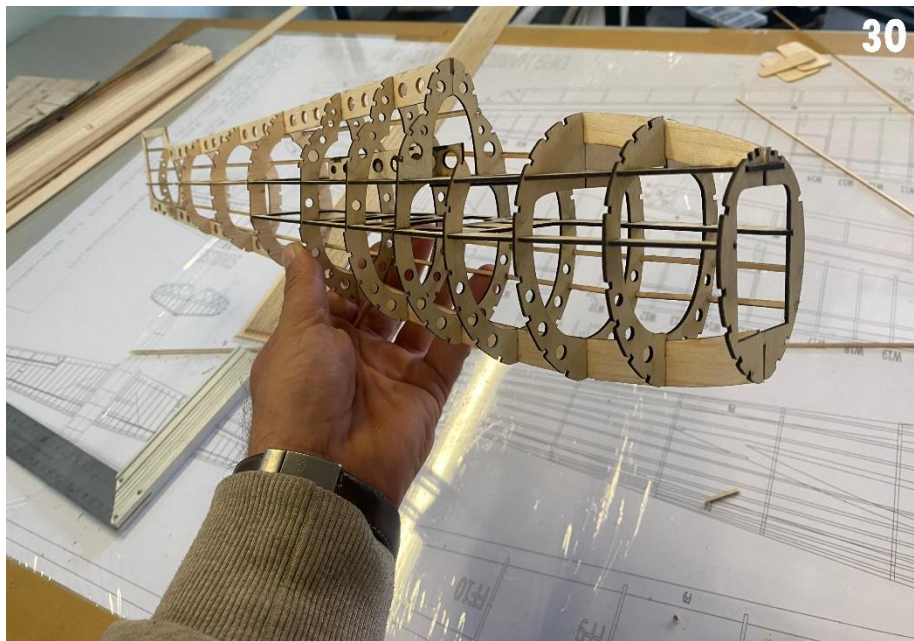
Once more a picture so you see how it should look before you add glue. Here the first horizontal former is shown.



And here you can see horizontal former number two(F11)



Now the fun starts, placing the vertical formers on the other side of the fuselage! Make sure all fits correct before adding glue.



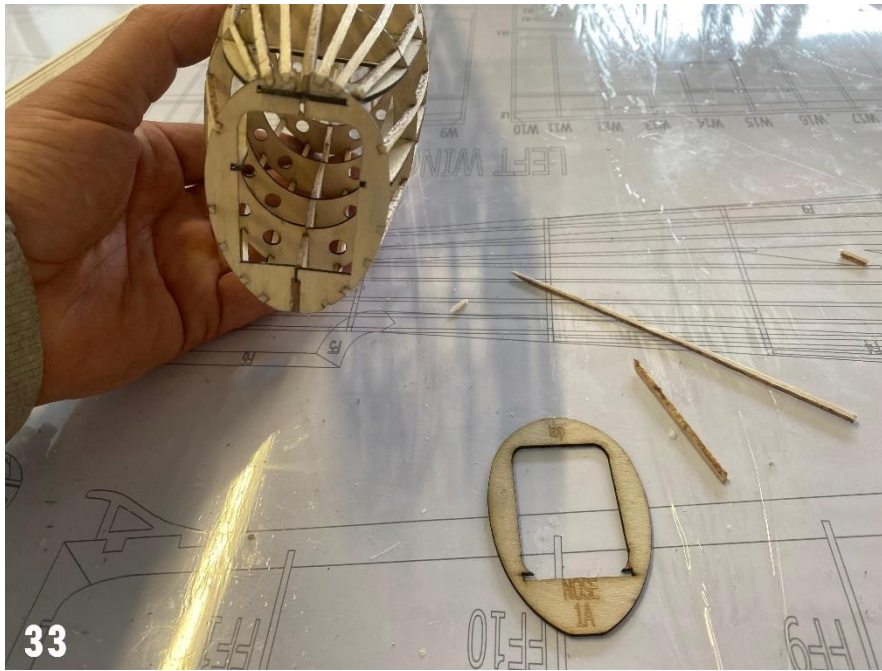
All formers glued on.



Once all formers are glued into place you can start adding the stringers. We start at the bottom. These stringers start at former FF1 and stop at former FF7



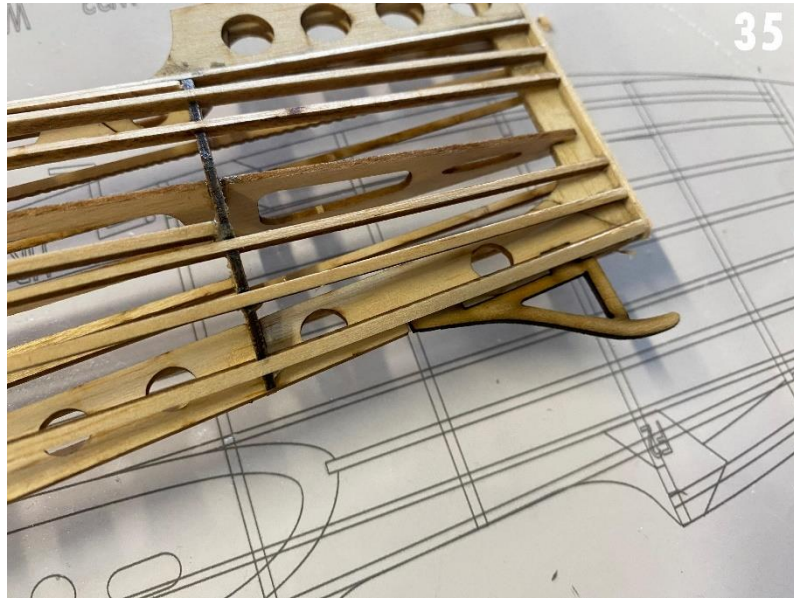
Next set of stringers at the bottom side of the fuselage. Start at FF1 all the way to former FF11. Now you can glue all other stringers, check the line up before adding glue. Later when we add the wing fairings some stringers are cut for a perfect fit.



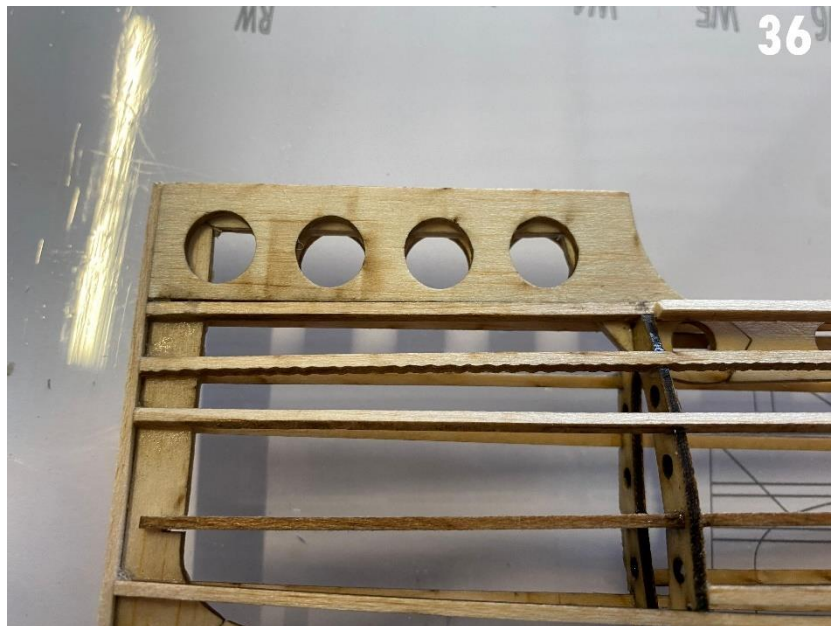
Cut and sand the stringers at former FF1 so it is a flat surface at the front.



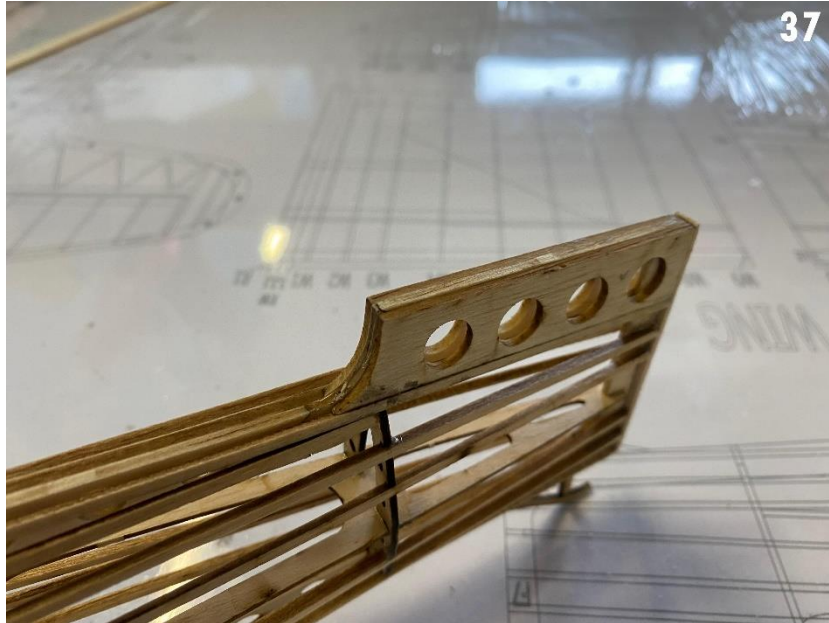
On the previous picture you already saw part "nose 1A", which we glue onto the formers FF1.



At the tail we glue the tail skid into place as shown on the picture. Cut and sand the stringers and add a balsa strip. This is important to get a nice hinge line for the rudder. Give the balsa strip some extra length, we will sand it to the correct shape later.



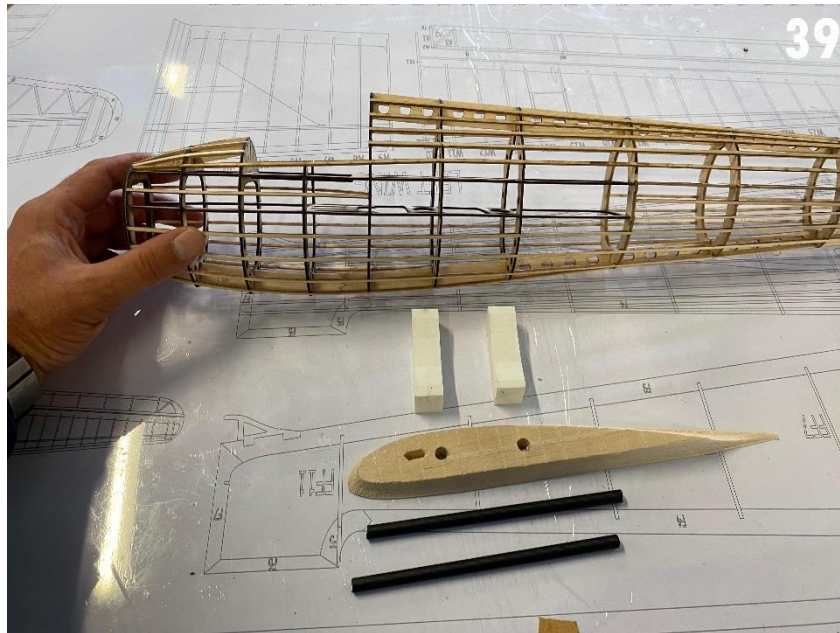
Here you can see that we added balsa parts S9, 2x, left and right.



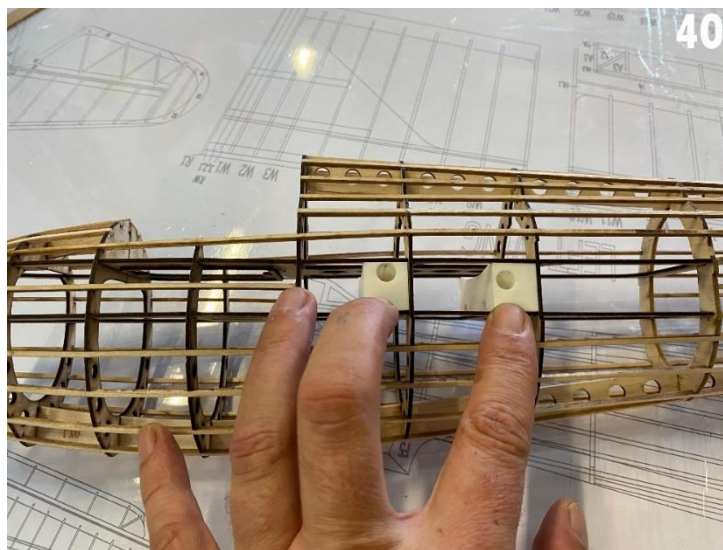
When you have done a correct job it should look like this.



Make sure the top side (stabiliser bed) is flat, be very careful with sanding not to change the angle of incidence! The front side can be sanded round, as you can see on the picture.



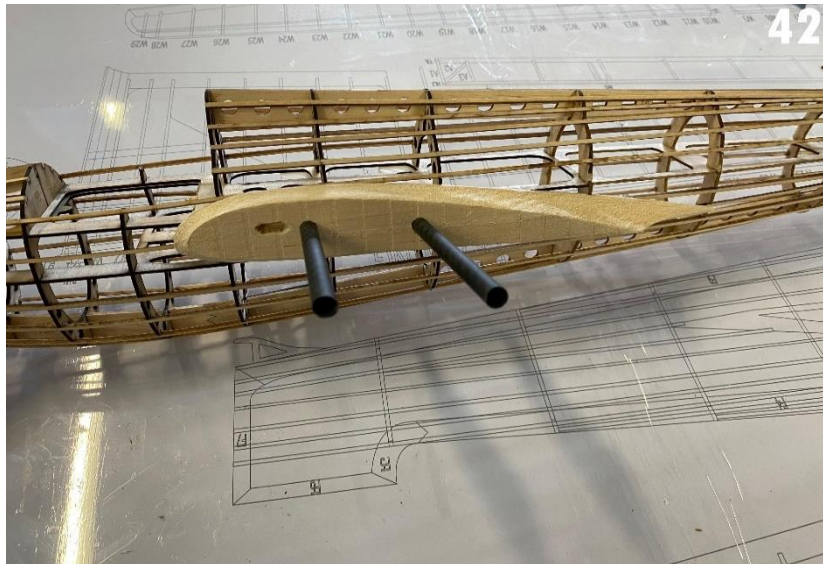
Next step. We will need the 3d printed parts, wing fairings and carbon rods (7mm diameter, hollow).



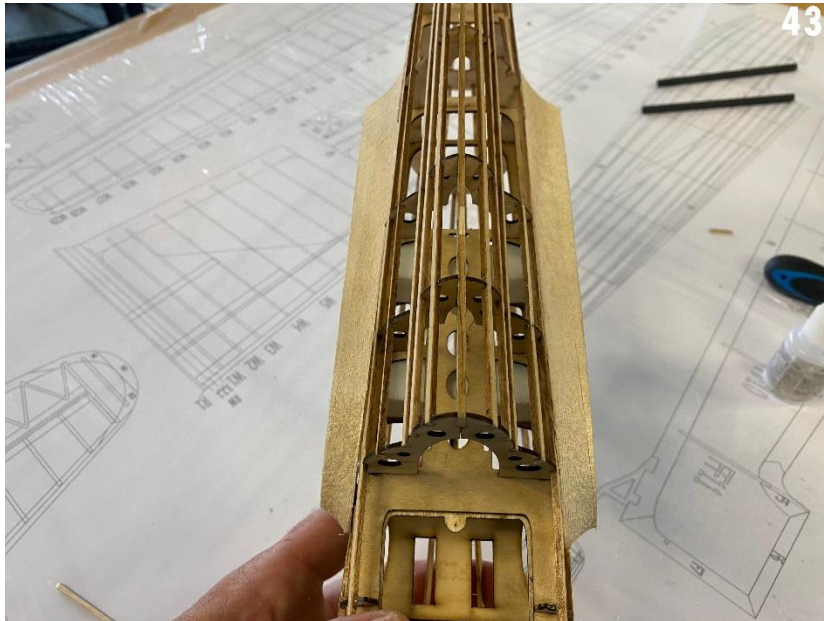
Here you can see how to line up the 3d printed parts, take especially notion on the holes for the carbon rods. Also make sure they are perfectly in the middle when looking from above. Here you also see the importance of having glued the fuselage formers straight and square, if this is not correct it will result in wings that are not attached square on the fuselage. Check this before gluing the 3d printed parts into place, make corrections when needed. In the kit there are 4 short carbon tubes with 7mm diameter. These go into the 3d printed parts and make sure the full carbon joiner is slop-free. Add glue, but be carefull that the inside of the carbon tube is clean. Sand down the carbon tube so it is even with the 3d printed part.



Once the 3d printed parts are glued into place, take the full carbon rods (6mm diameter) and slide these in the 3d printed parts. Slide another set of 7mm carbon rods through the holes in the wing fairing, then slide the 6mm full carbon rod into these. Then slide the wing fairing against the fuselage. First trim the cnc-ed wing fairing to the correct shape for a good fit.



Take your time to make it fit nice, now you also see where to cut which stringer. Once the wing fairing is glued against the fuselage you can take out the carbon rods.



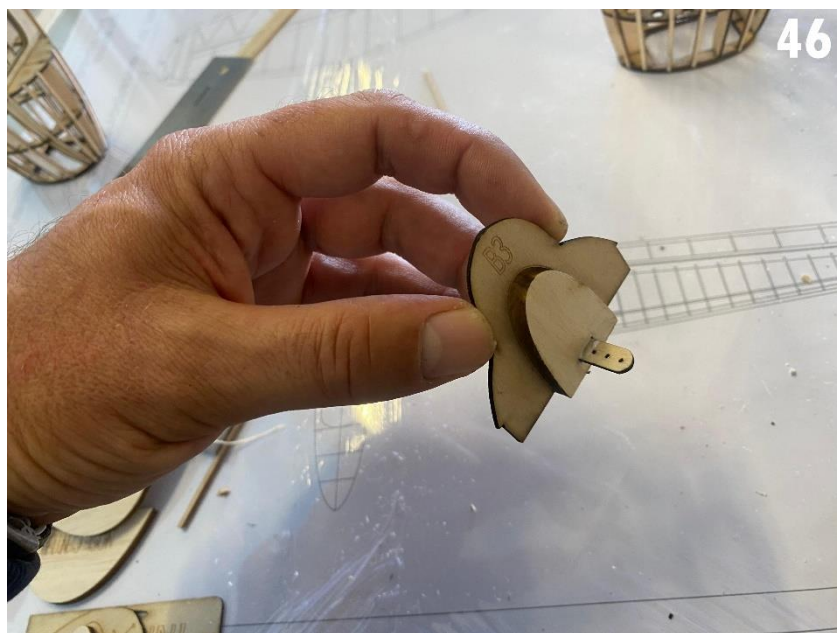
Repeat the same process on the other side of the fuselage.



Looks nice like this.



Next step, back side of the cockpit and ballast holder. We will need the plywood part B3, 5mm balsa part B2 and a little plywood strip. Here I have made 3 holes in the little plywood strip, this is for fixing the ballast, 3 holes so you can change cg.



Make 100% sure all is glued on the correct place for a good fit into the fuselage.



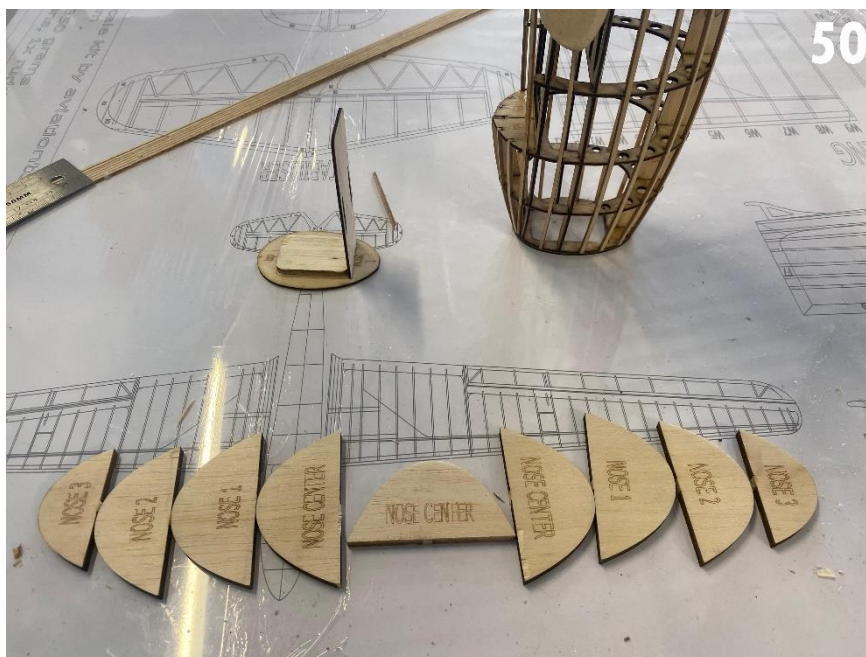
Now the parts we made in the previous step are slid into the fuselage, do not glue it, once the pilot is glued on plywood part F14, he will hold it in place. Of course you can add a little magnet to hold it into place, it is your choice.



Next is the nose section, this will also hold the battery. We will need the plywood parts "Nose 1", "1C" and 5mm balsa part 1B.



Make sure the 5mm balsa part is glued exactly into place, then glue the plywood part 1C at the bottom side of it and against the plywood part "nose 1". The plywood part 1C will slide into the slots which are in the formers FF1.



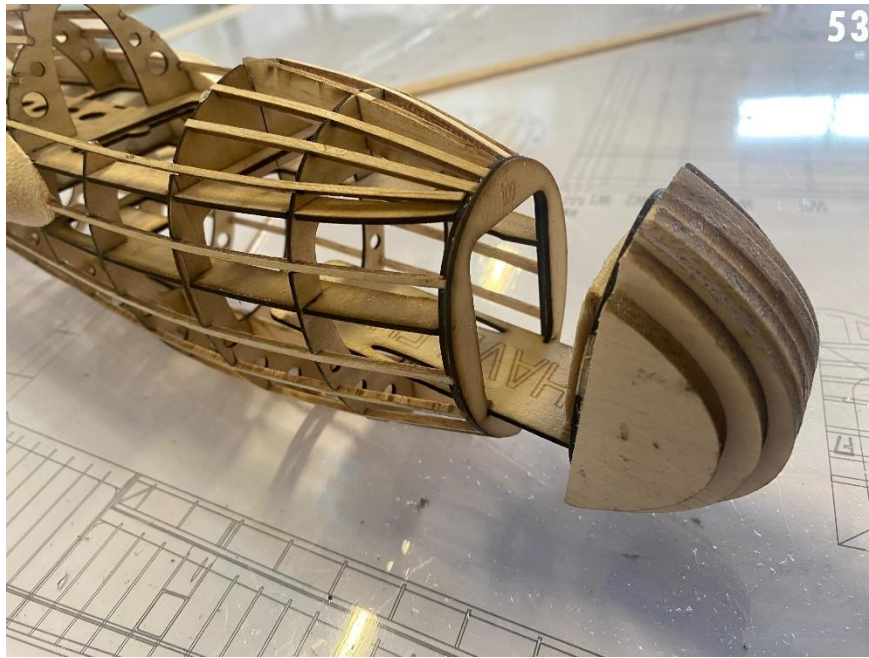
Next is the nose block, these parts are 5mm balsa. The picture says it all, use white glue because there's sanding to do later on.



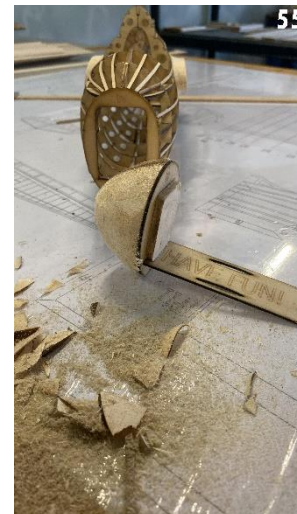
5mm balsa nose block parts all glued together.



Now glue the noseblock against "nose part 1" as show on the picture.



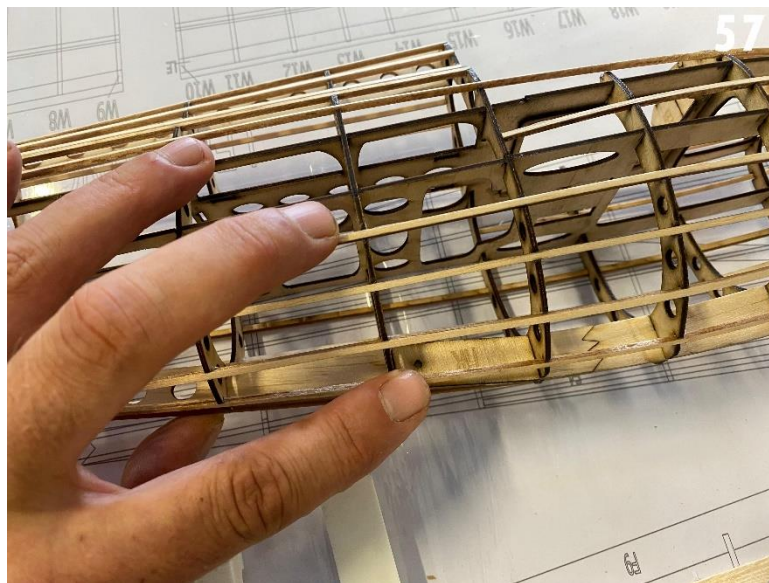
Before sanding slide it into place. Of course here can also be a magnet added to hold it into place, but for sanding holding it by hand will do just fine. When you do not use a magnet you can use a simple piece of tape to hold the nose block into place when the Habicht is finished. To hold the battery a Velcro strip will do the job perfectly.



Now it is time to do some sanding, take your time, for the looks it is very important to create the correct shape.



When you are planning to use a high start/tow line for launching, use plywood parts "HR" for reinforcement. These parts are glued between formers FF5 and FF6.



The hook is not shown on the picture, but glue it first to the balsa, "crush" it into the balsa so the plywood part goes over it, having contact with the hook AND balsa. Epoxy is recommended. Then glue the other plywood part at the other side, the little hole is for the steel wire (hook). It will help fixating/strengthen the tow hook.



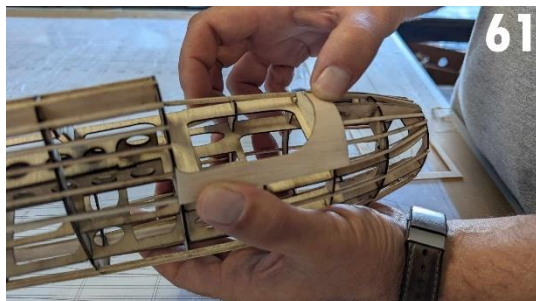
Now that the tow hook part is done, up to the next step.



We need a 1mm balsa part for the cockpit, you can find this part in the 1mm balsa sheet that also holds the wing sheeting.



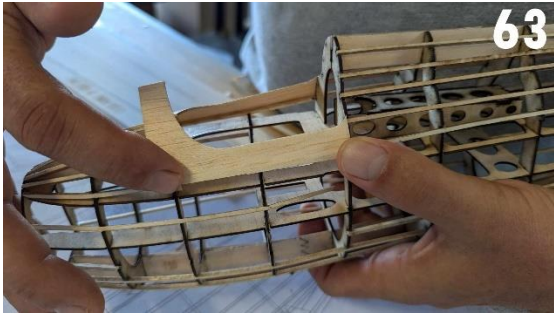
Start with glueing it to one side of the cockpit, like shown on the picture. Picture 61 shows the 1mm balsa part on the correct spot.



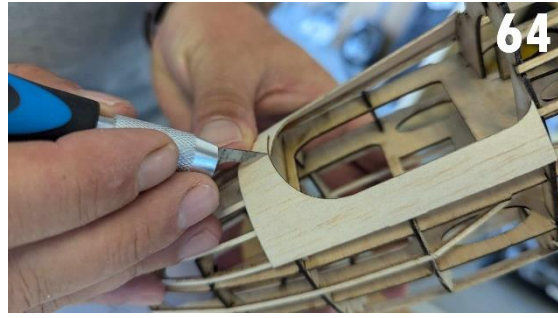
The part has a bit over size, so glue it not all the way, just to the center of the fuselage is good, then cut it.



Here you can see we cut it right at the center of the fuselage.



Now we do the other side, same process.



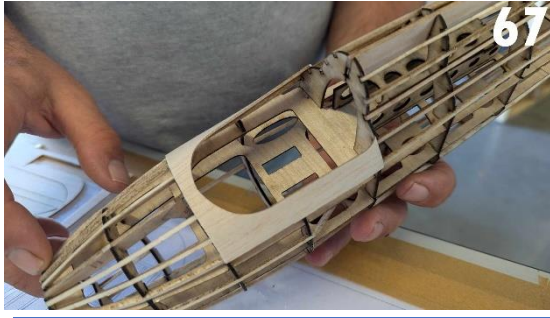
Cut off like shown on the picture.



Make it fit correct so it does look like this.



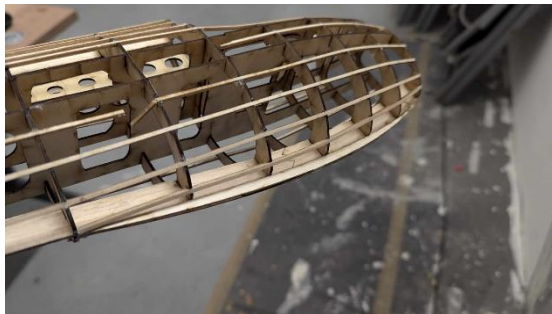
Cut off the 1mm balsa in front of former FF3, you can see it on the picture.



Almost done, but it already looks like a cockpit now.



On this picture the wing fairings are not glued on, but it might be needed to cut off the corners a bit to make it fit nice with the wing fairings. Except for sanding the fuselage construction is now ready.

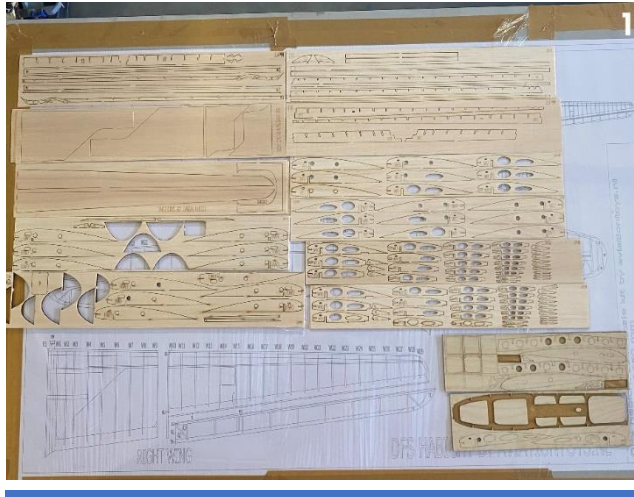


Here you can see the skid, there is a plywood skid in the kit, this goes from the nose to the hook. Here are 2x 1.5mm balsa strips glued left and right of the plywood skid. For looks this is recommended, make the balsa strip out of scrap balsa that is left over and sand it.



[Trek de aandacht van uw lezer met een veelzeggend citaat uit het document of gebruik deze ruimte om een belangrijk punt te benadrukken. Sleep dit tekstvak als u het ergens anders op de pagina wilt plaatsen.]

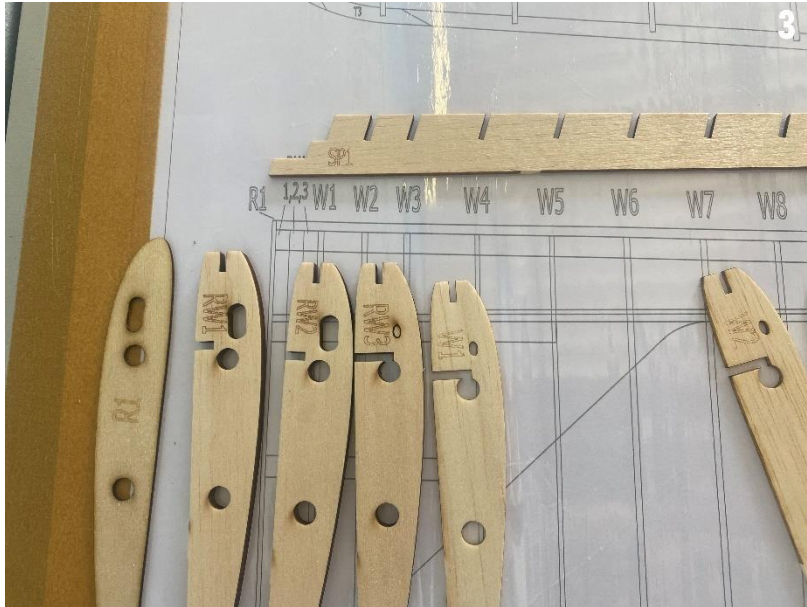
Wings



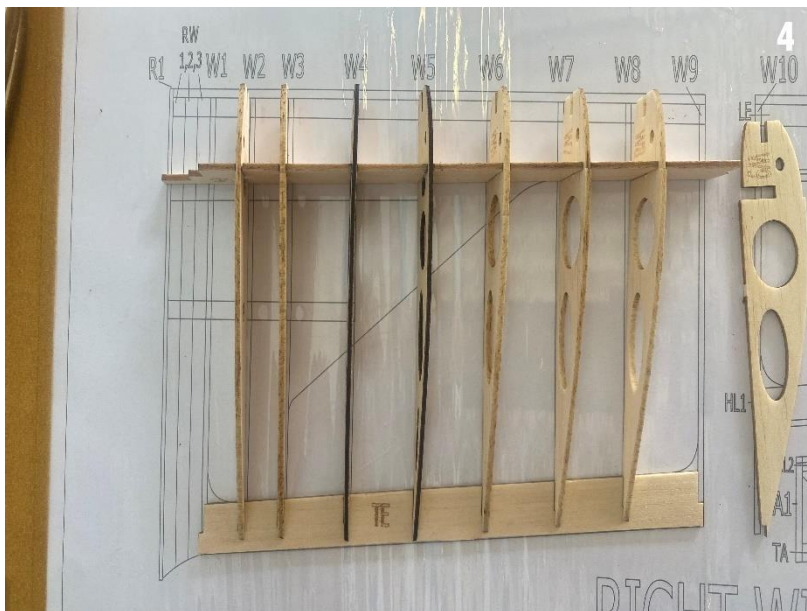
All parts needed for the wings.



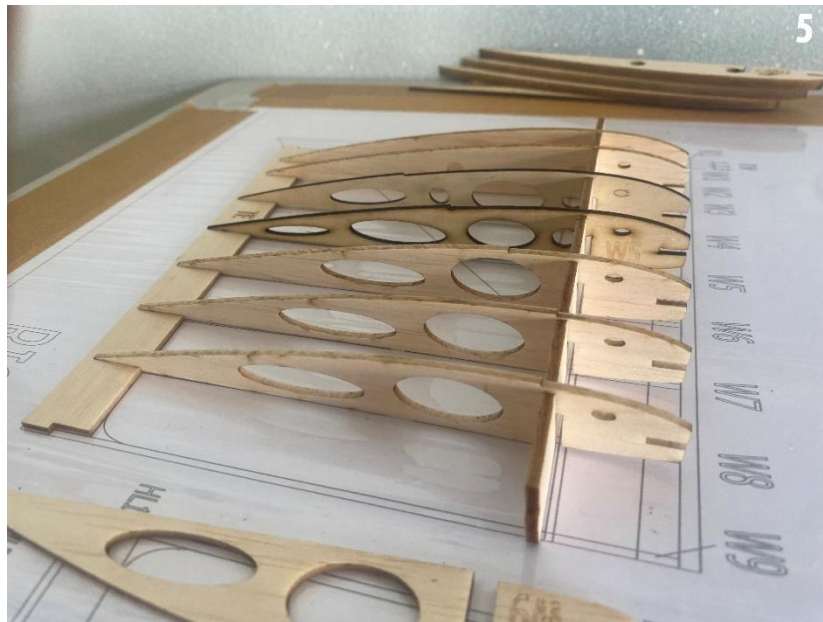
We start with the short wing panel. It is quite easy to make a mistake, so check all twice before you glue it together! Wing ribs W4 and W5 are from plywood. Ribs RW 1,2 and 3 are 5mm balsa.



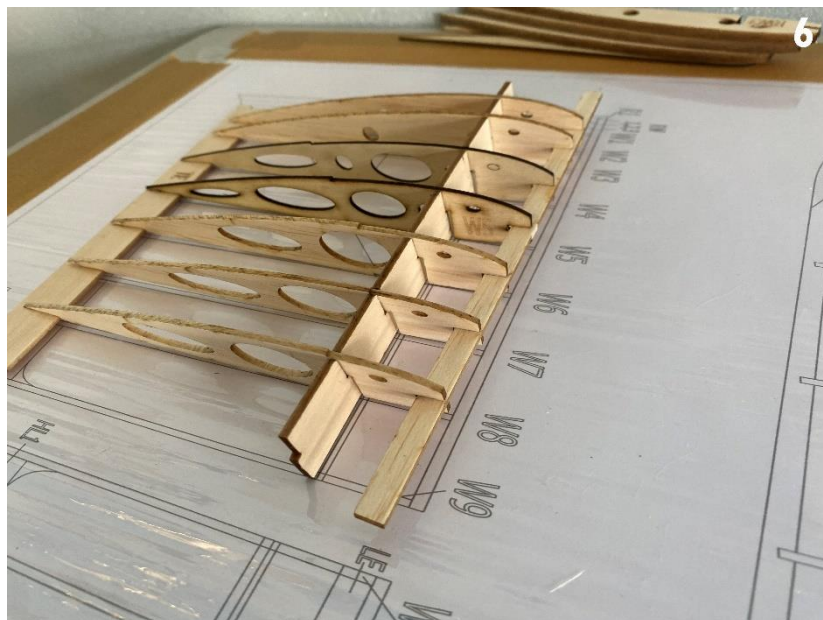
Ribs R1(plywood), RW 1,2 and 3(5mm balsa) will have to wait, we start with sliding in ribs W1-W9 into the balsa spar, this is part "SP 1".



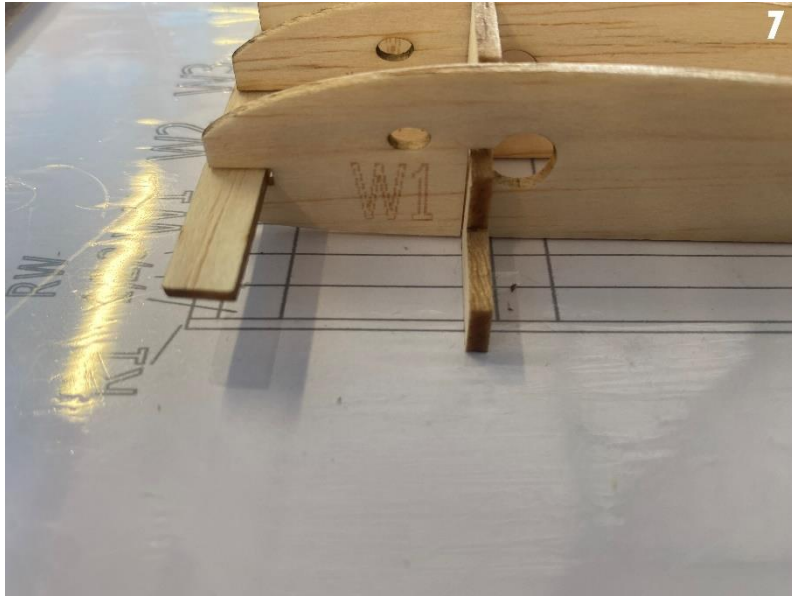
Once we slid in the ribs W2-W9 into the spar(SP 1), we also can add the trailing edge, part "TE". No glue yet, first we check all.



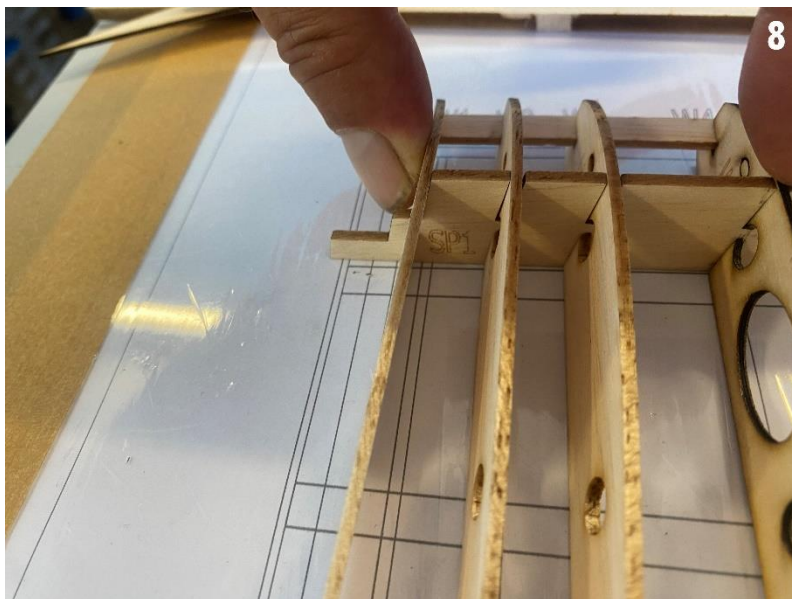
Here you can see the gap in the ribs, in front of the balsa spar "SP 1". Here comes the plywood spar/joiner "SP 3". Make sure all ribs line up the same before you glue them all. SP3 is not needed yet!



Next step is to slide in a balsa strip called "LE 1", the picture shows it all.



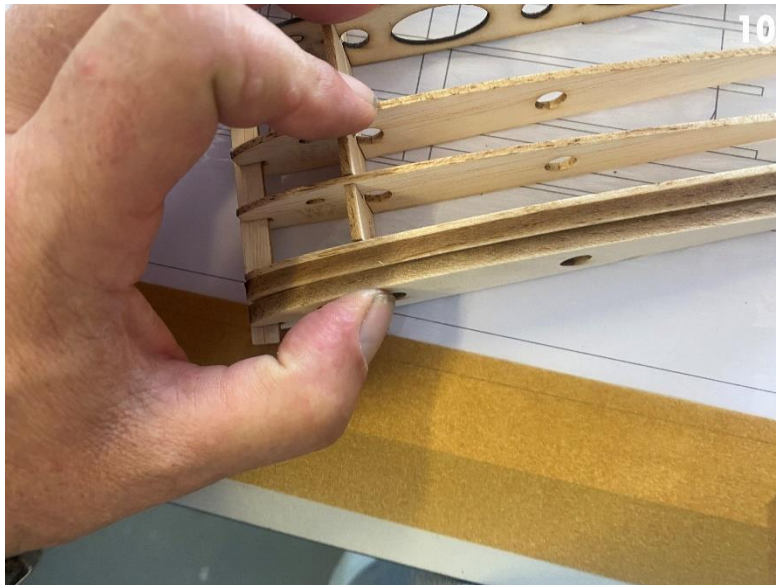
Next are the 5mm wing ribs "RW 1,2 and 3".



First we make sure wing rib "W1" is glued on correct, check the picture.



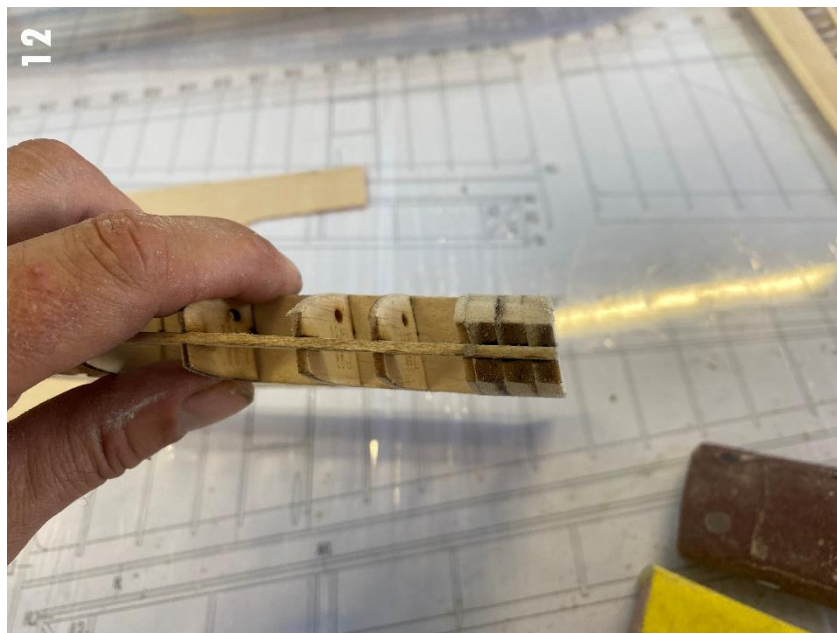
First up is RW 3, make sure all holes etc. line up correct.



Now we add/slide RW 2, don't forget to put white glue in between. White glue because we are going to sand later on, white glue is better suited for sanding.



Finally we add RW 1 the same way, again, make sure all holes etc. line up with the rest.



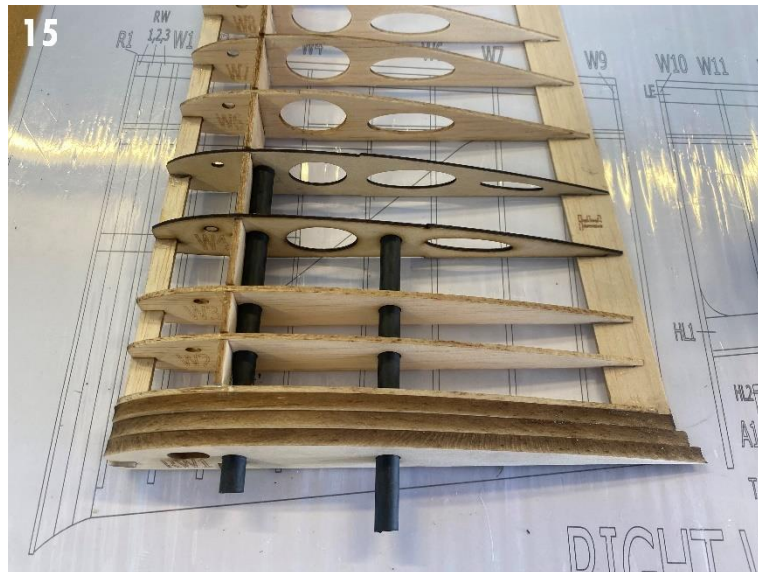
There can be a bit of sanding needed in the slots of RW 1,2 and 3 to get them to fit like this.



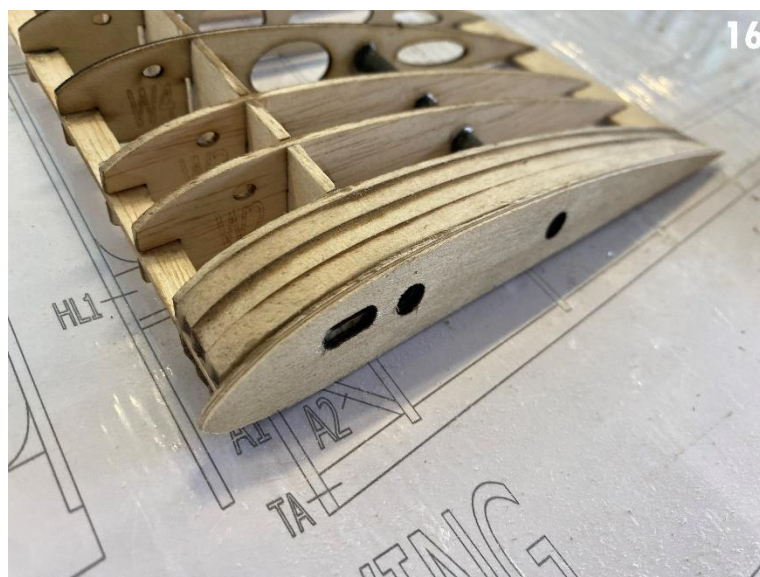
Sanding time, make sure all edges are smoothed out so later on the 1mm wing sheeting can be glued onto the surface.



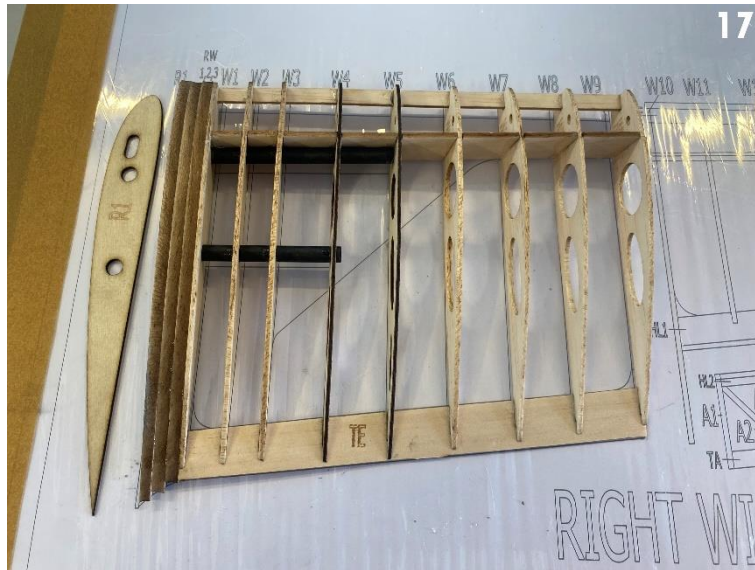
Let's slide in the carbon tubes(7mm diameter, hollow). The long one goes into the front, shorter one in the back. Do not forget to glue them once you have checked their position.



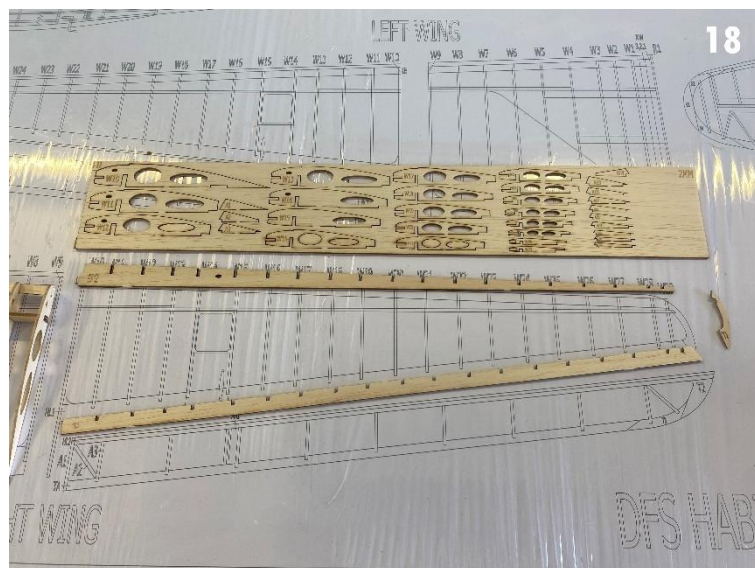
It should look like this. Take care that the carbon rods are also glued in the plywood ribs, this is important for strength.



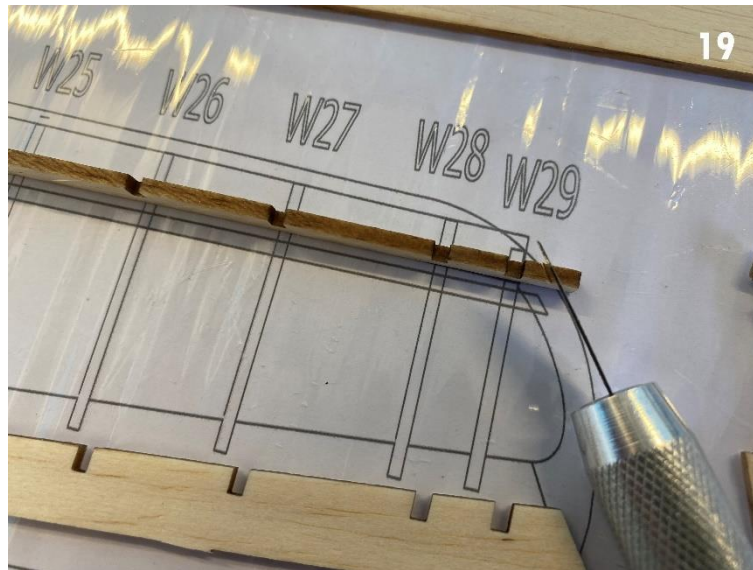
Add, not glue, plywood rib "R1" and sand the carbon tubes.



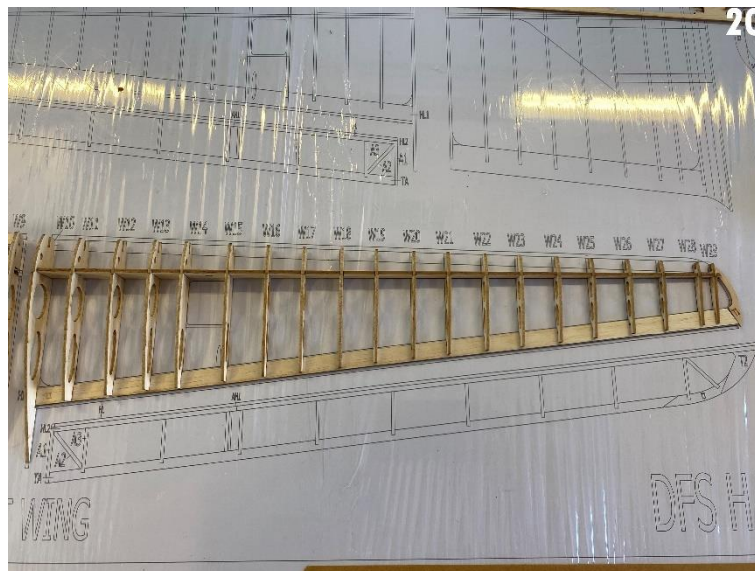
Do not glue R1 yet, later we add the cnc-ed leading edges first!



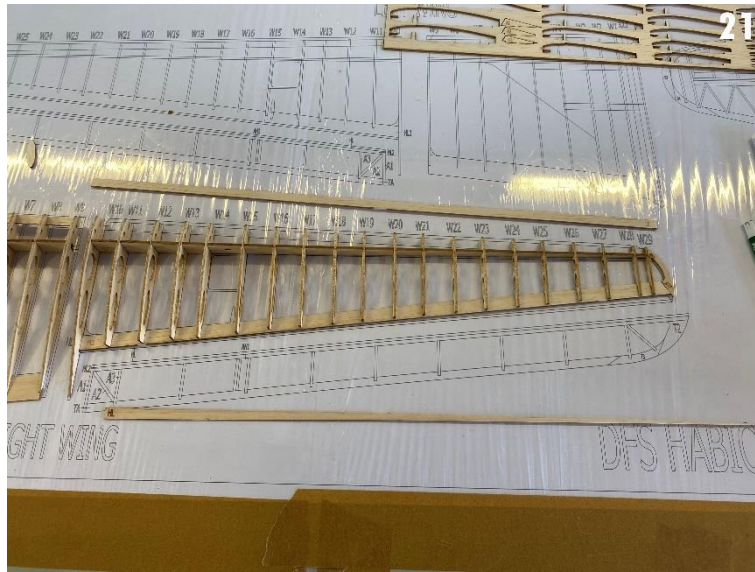
Let's go further with the wing tip, here you can see the parts we need.



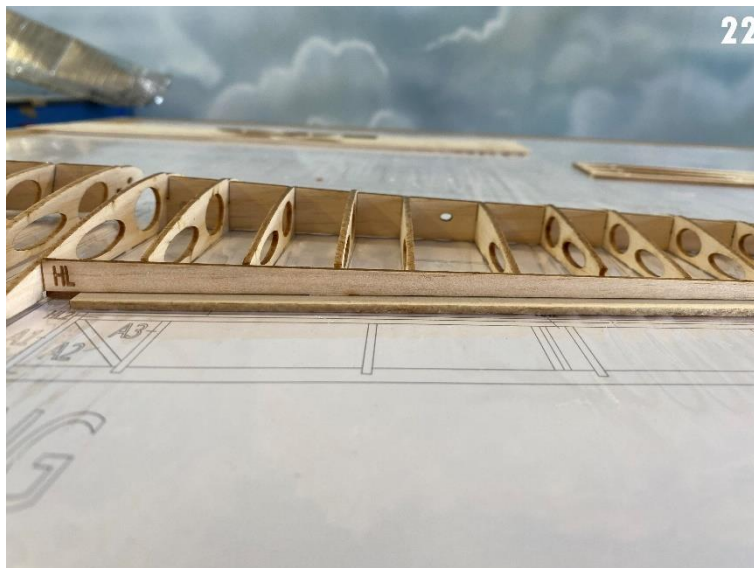
The picture shows where to cut the tip of the balsa spar for a correct fit of part "T1"



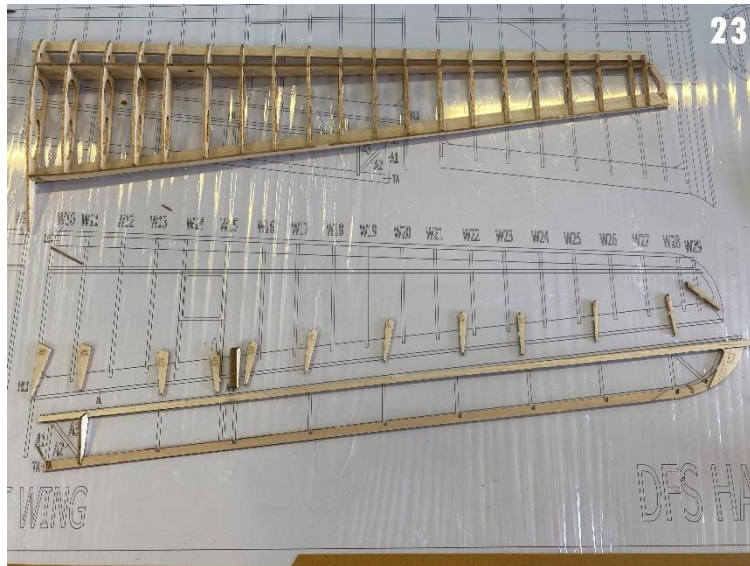
Slide all ribs, W10-W29 into the balsa spar SP2. Then gently add the balsa part HL1. The ribs will slide into the slots, see picture. Check all for the correct fit and then add glue.



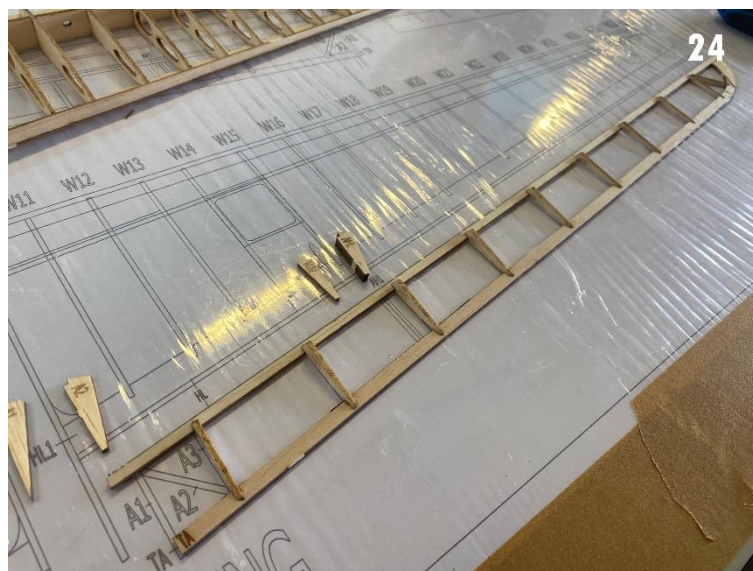
Now we slide in the “leading edge part” LE, which can be soon on top of the picture. Alos we glue part HL at the back of the ribs and onto part HL1.



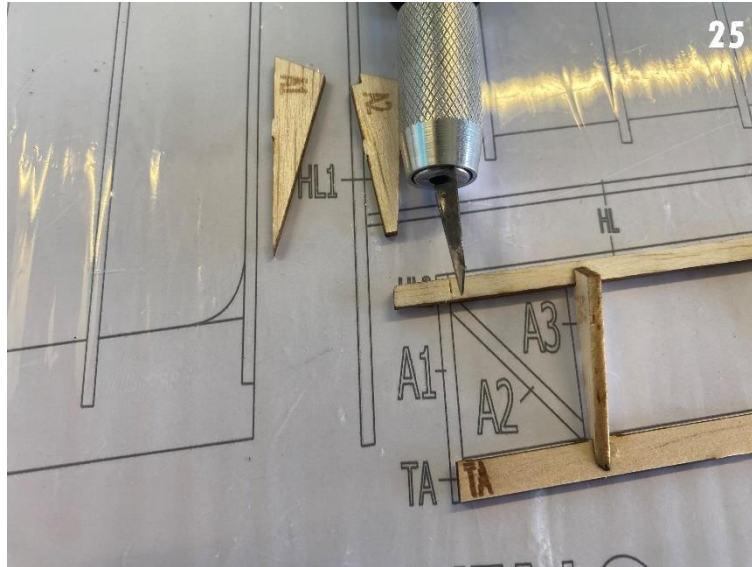
Here you can see part HL. Make sure it is straight from beginning to end(tip). If needed make some corrections.



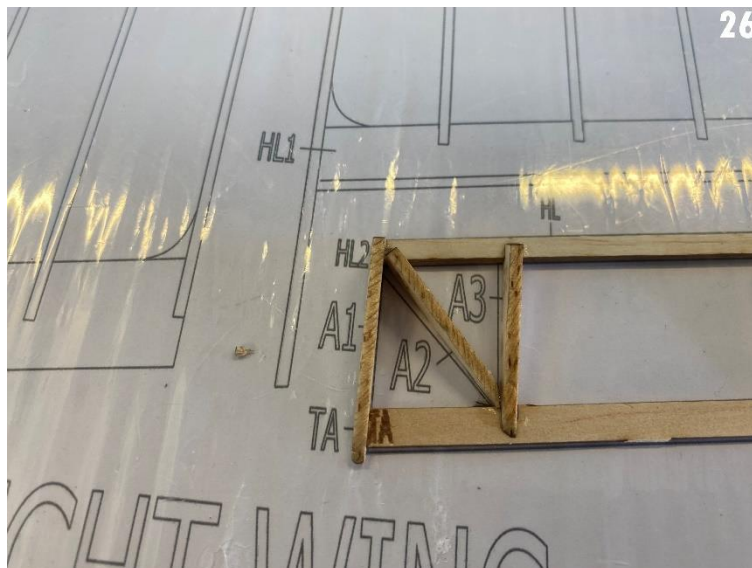
On top of the picture you can see your how the wing tip should look. Time for the next step, aileron. We start by glueing the parts HL2, TA, T2 and T3 together , then glue rib A3 into place.



Now we can add the rest of the parts; aileron ribs A13, A15, A17, A19, A21, A23, A25, A27 and A27a.



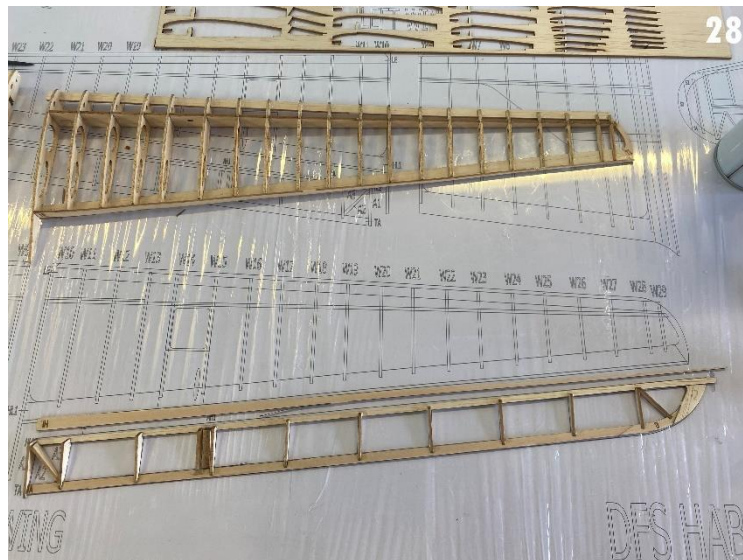
Part A1 should be glued after we have cut "TA" to the correct size/length. Then we can add parts A2 and A3. Sand A2 for correct fit (angle).



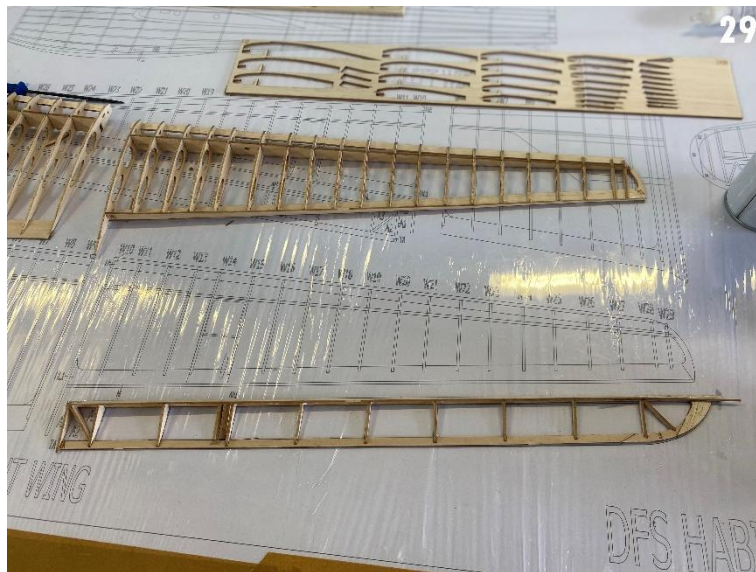
Like this.



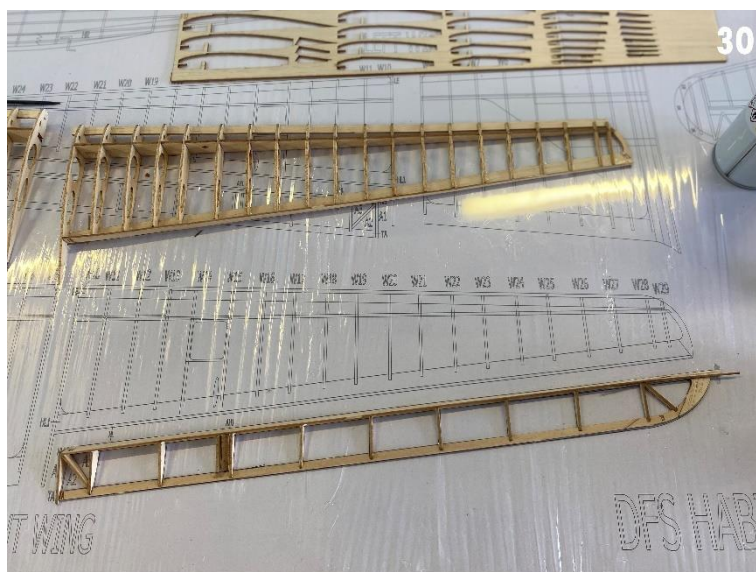
Now we start the aileron ribs AH1(5mm balsa) and AH4. Make sure the gap between these is 1.4-1.5mm. Here will come plywood part AH3 which hold the aileron horn.



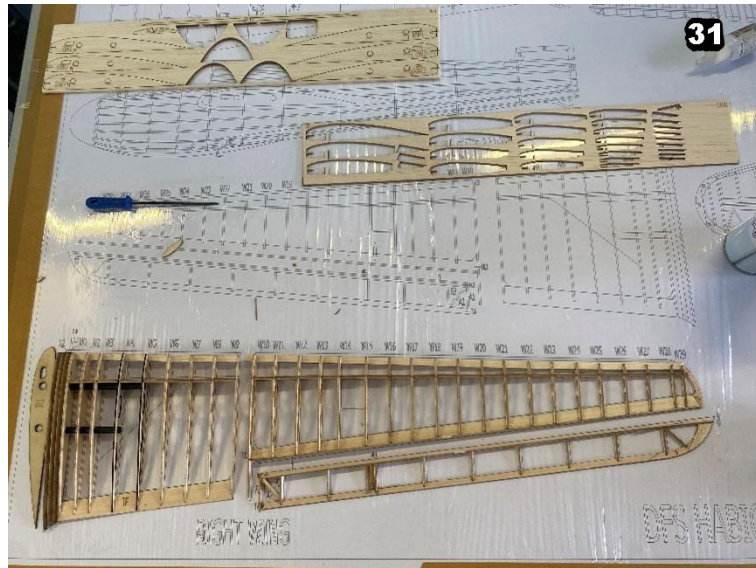
Finally we add balsa part HL, this one is glued against the aileron ribs and on top of HL2. A bit of sanding is needed to get the correct angle.



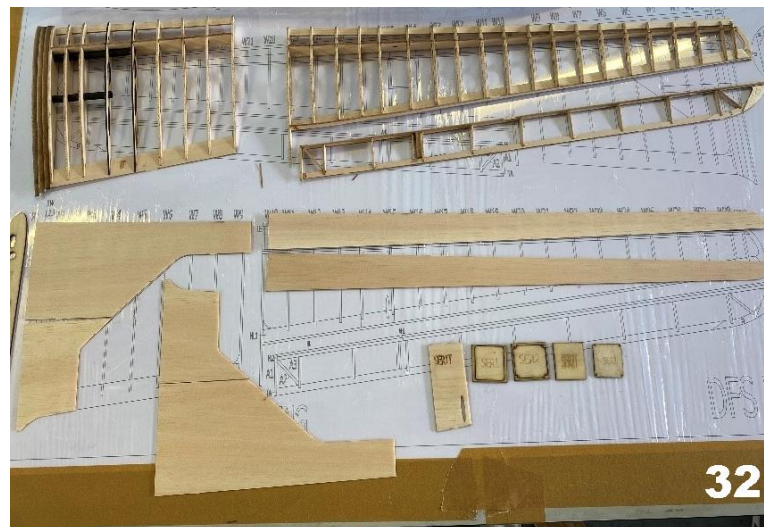
Aileron construction done.



Sand the hingelines, correct the constuction if needed for a nice fit to the wing tip.



*Wing and aileron construction almost ready.
Next step; wing sheeting and servo bay.*



*Here you can see all the parts needed for the
wing sheeting and servo bay.*

33



First we glue the top side wing sheeting on the wing tip. Make sure the glue is applied well, touching the ribs and spar 100%.

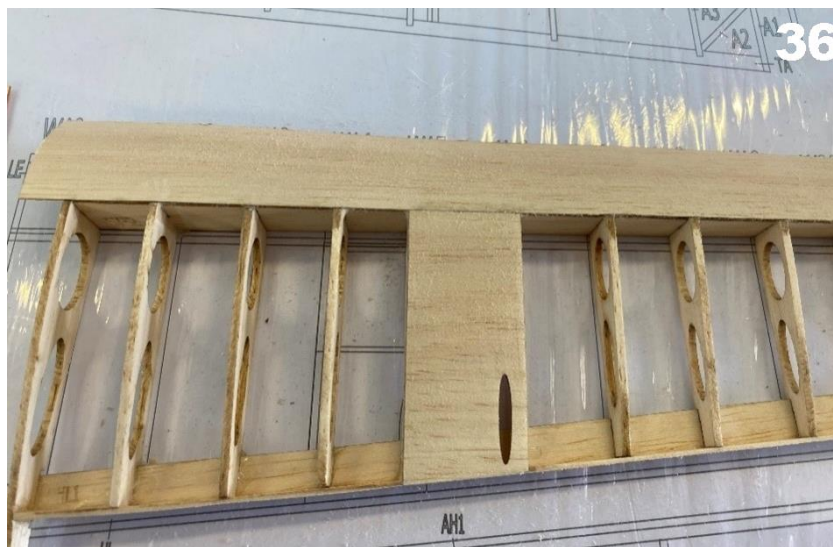
34



Make sure no gaps are there between the ribs, spar and 1mm balsa wing sheeting.



Next is this 1mm balsa part, on the picture you see the inside of the part SER1T. The oval hole is shown on plan, so when you glue it the correct way the lasered text is not shown at the outside.



That looks perfect.



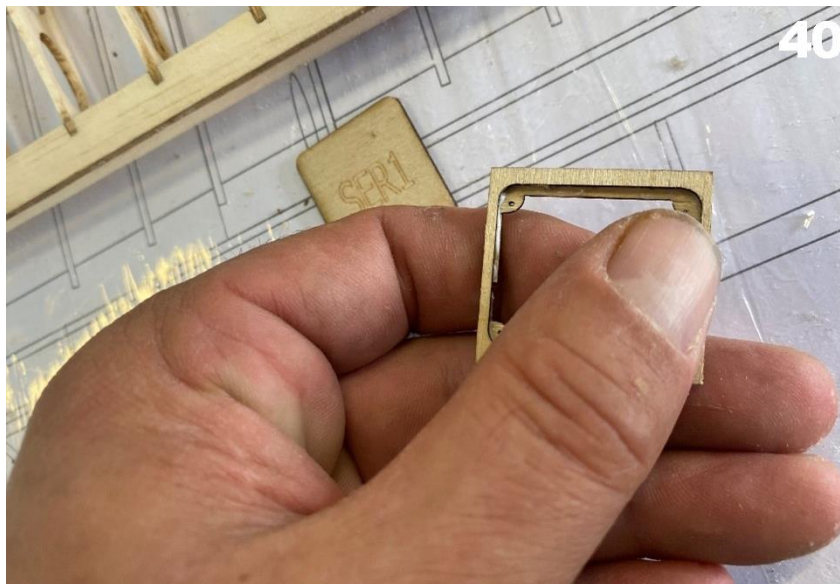
Now we flip the wing up side down and we can start the servo bay. Parts can be seen on the picture.



We start with plywood part SER2T. Glue this part on the 1mm balsa sheeting and against the spar as shown on the picture.



Glue plywood parts SER1 and SER2 together as shown on the picture, center them exact for a good fit in the wing.



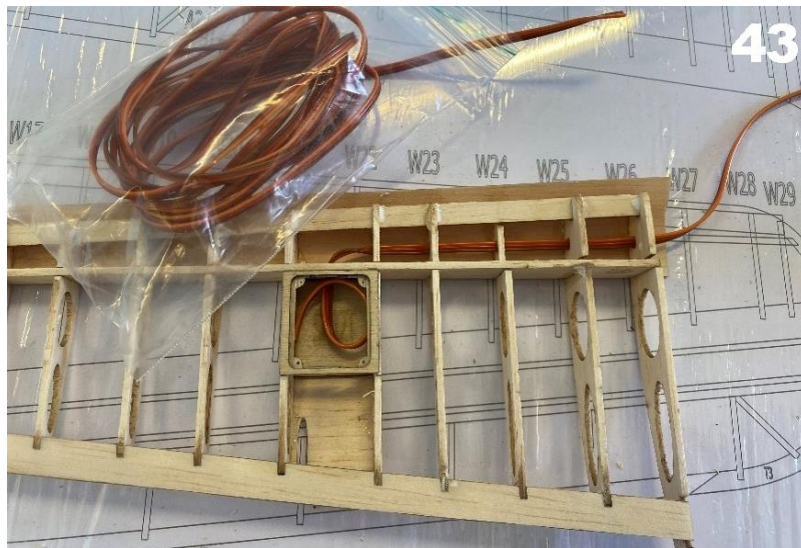
Top view of plywood parts SER1 and SER2 glued together.



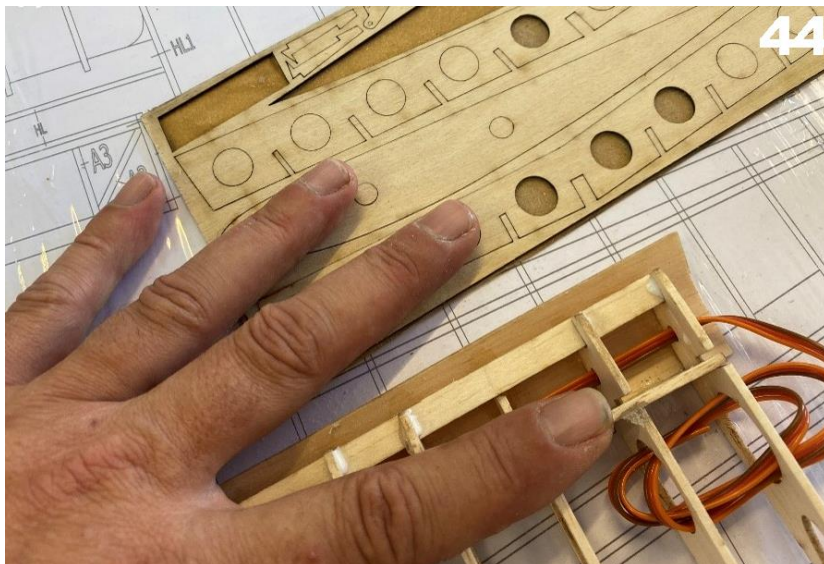
Glue SER1&2 into the slots of wing ribs W14 and W15(bottom side of the wing).



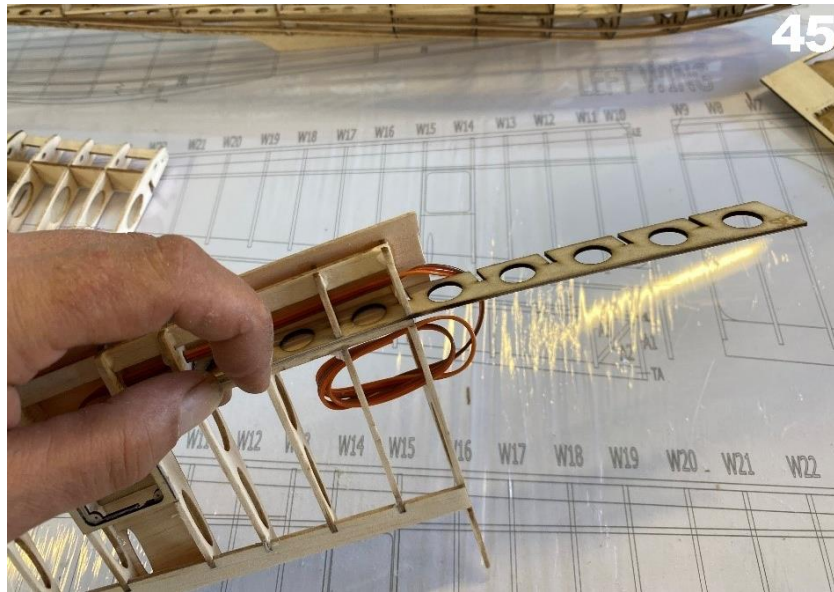
After servo install you can close the bay with the plywood hatch, part SER3.



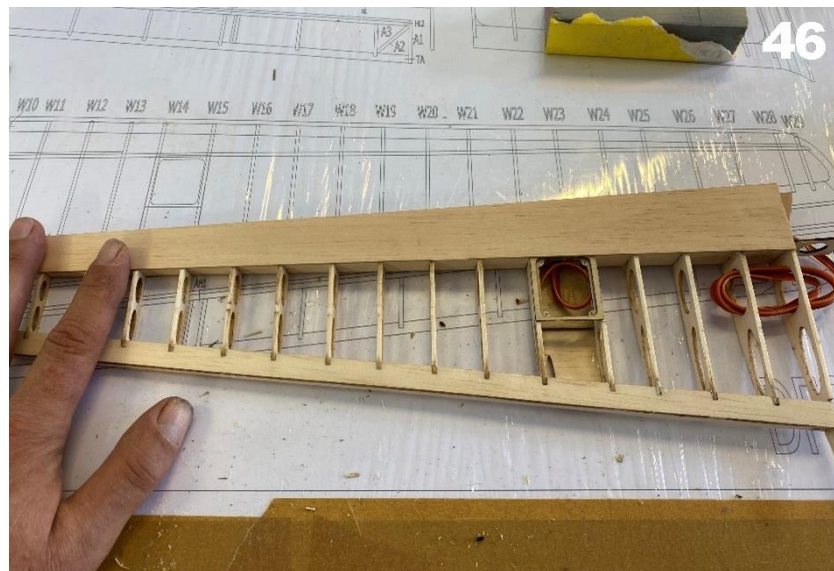
Before we go any further we have to make the servo wire, holes are already lasered into the wingribs.



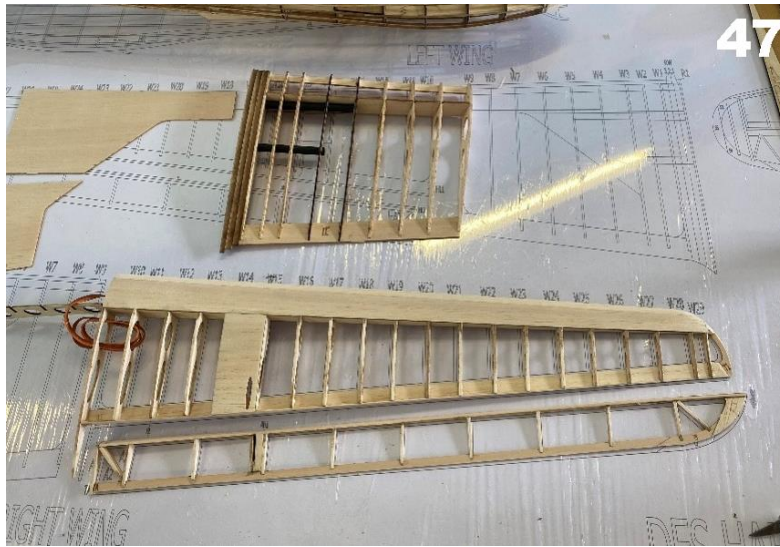
Now we check the gaps in the wing ribs in front of the spar, here we have to slide in the plywood joiner, part SP3. The short side goes into the wing tip.



Like this.



Now we have pulled through the servo wire and added the plywood joiner, we can glue the 1mm balsa wing sheeting.



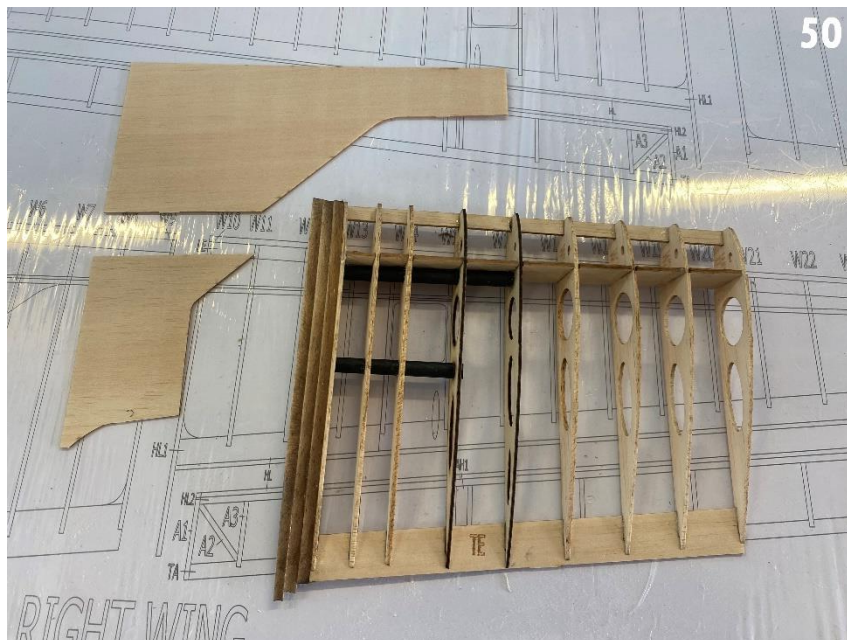
Wing tip done.



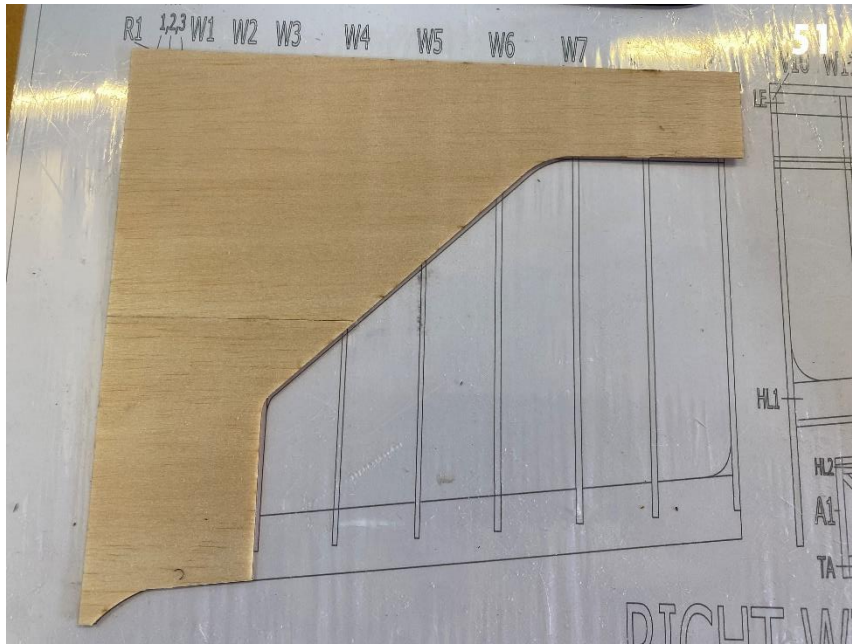
On the picture the "horn holder" is pointed out, this is part AH3.



Slide in AH3 into the slot we have made before, don't forget the glue! Sand it down for a smooth finish.



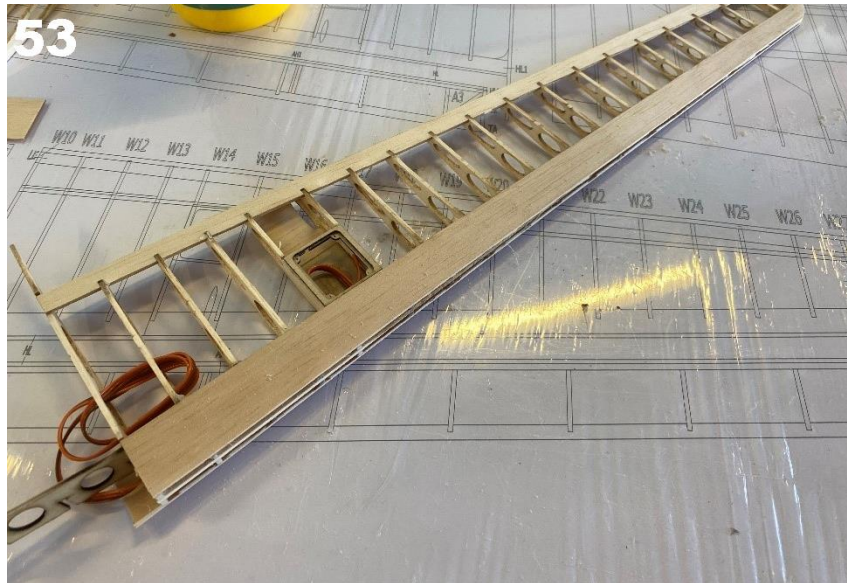
Now we go further with the top wing sheeting of the short wing panel.



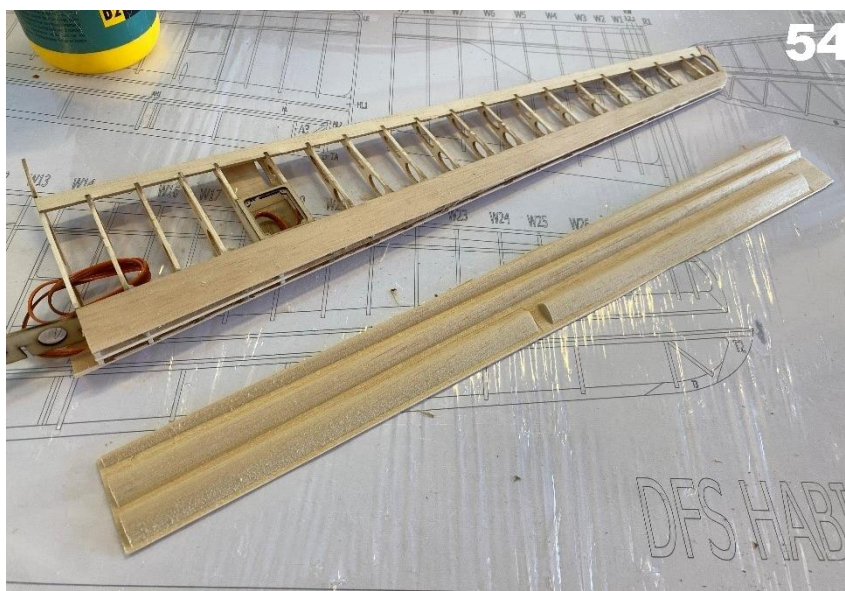
Glue together the 1mm balsa sheeting as shown on the picture.



Glue top side of the wing panel first.



I wrote earlier that the wing tip is done, but that's with out the cnc-ed leading edge. Before we glue the leading edge, first we have to sand the 1mm wing sheeting so it is even with the wing ribs as shown on the picture.



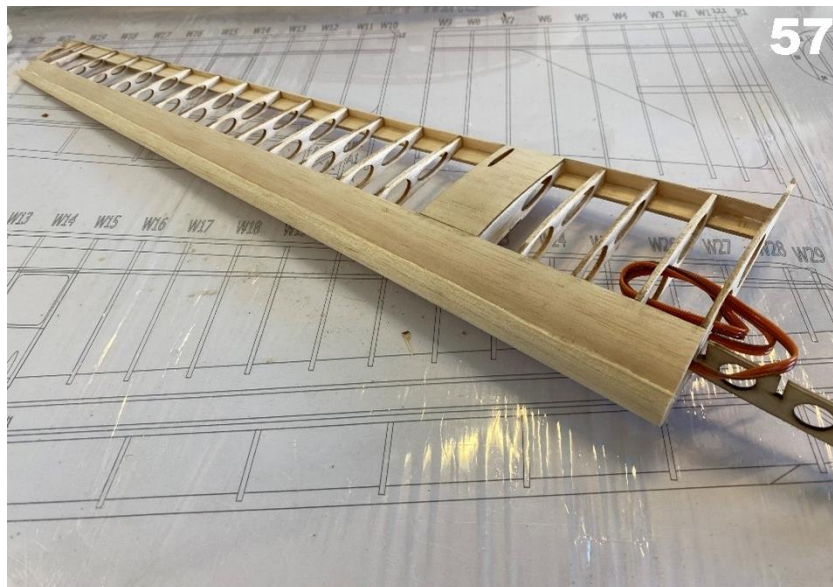
CNC-ed leading edges, we need the long ones for the wing tips, make sure it is the correct side.



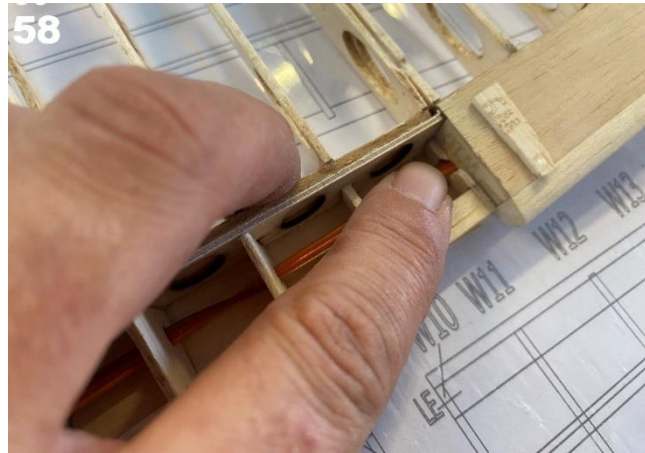
Looking at this picture, the left side of the leading edge is the bottom side of the wing.



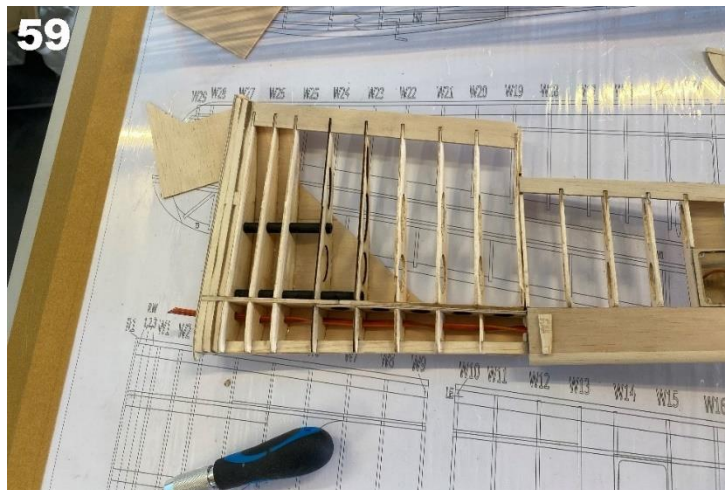
Glue it against the wing ribs and 1mm balsa sheeting, use white glue.



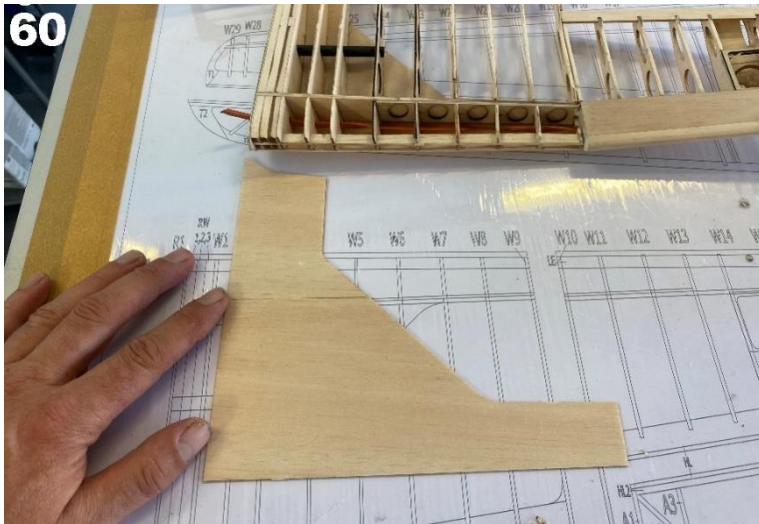
When all is dry, sand it down so everything is smooth in line with the airfoil. Yes, the leading edge will be more sharp/pointy after the sanding process, this is a good thing.



Before we can join the wing panels together we have to cut open rib wing rib W9 for the servo wire. See picture. Do not forget to apply glue to the spars and wing ribs W9&10.



Pull the servo wire through all holes in the wing ribs as shown on the picture. Glue back the cut off part of W9.



Now we can add the bottom wing sheeting on the short wing panel.



After sanding the 1mm wing sheeting even with the wing ribs, we can start with the leading edge. The picture shows the angle we have to sand for a nice fit to the wing tip.

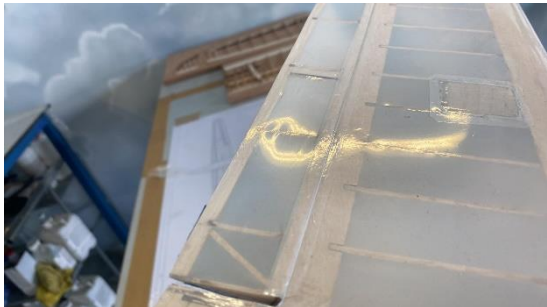


Like this, check that you have the correct side so that the airfoil is not the wrong way around.

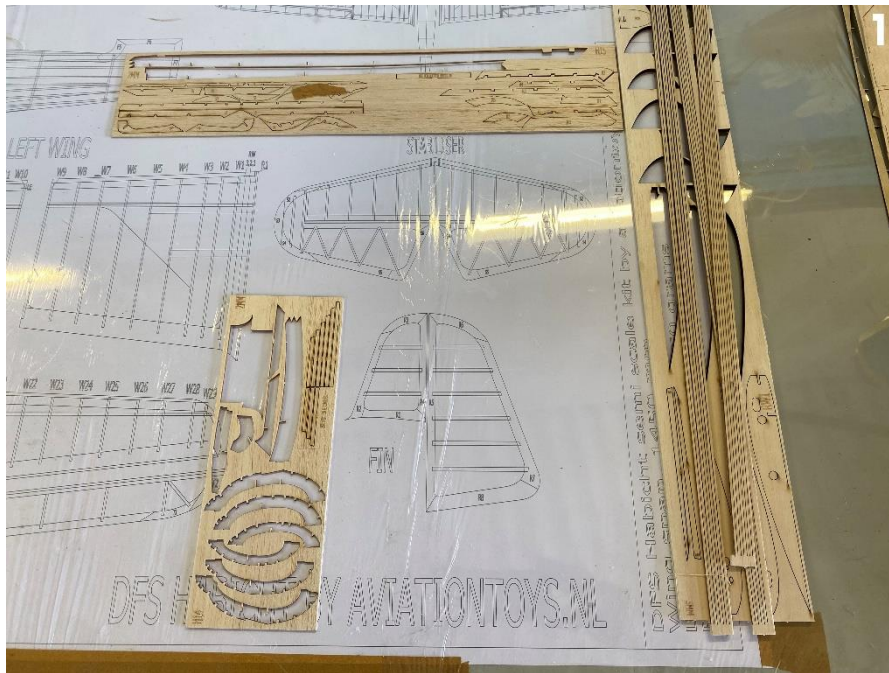


This looks like a nice wing! Now sand the root nice and even and glue plywood wing rib W1 against the balsa wing rib RW1.

The first wing half construction is now ready. Note for aileron assembly; we use ora cover as hingeline, of course you can use light weight hinges that are for sale in most hobby shops, this is your choice. You can even use good quality tape as a hinge. The servo bay is just big enough for a CHAServo DS06 with servo tray, you have to sand down the servo tray to make it fit nice. Now have fun with the other wing half!



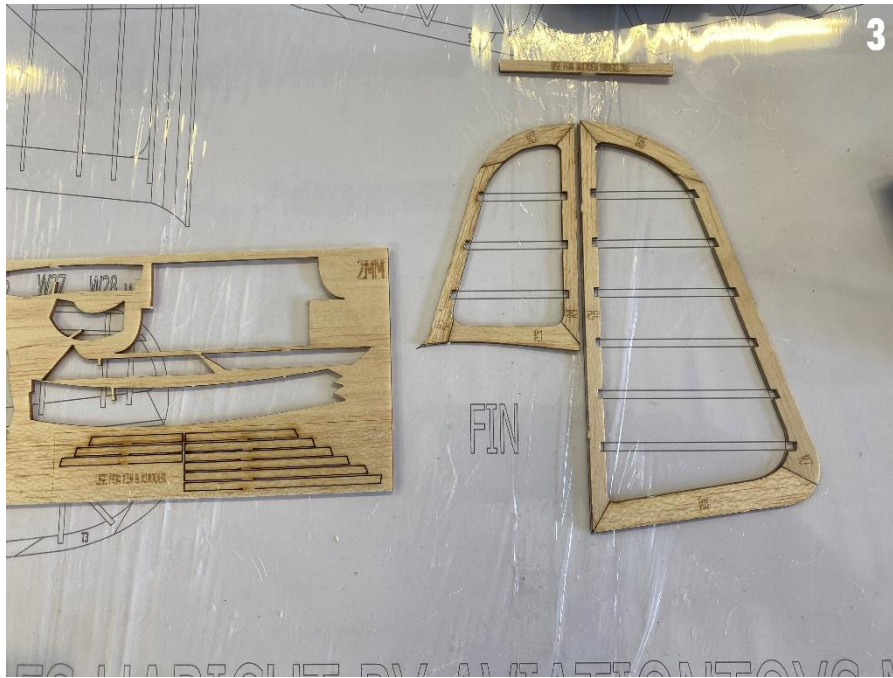
Tail



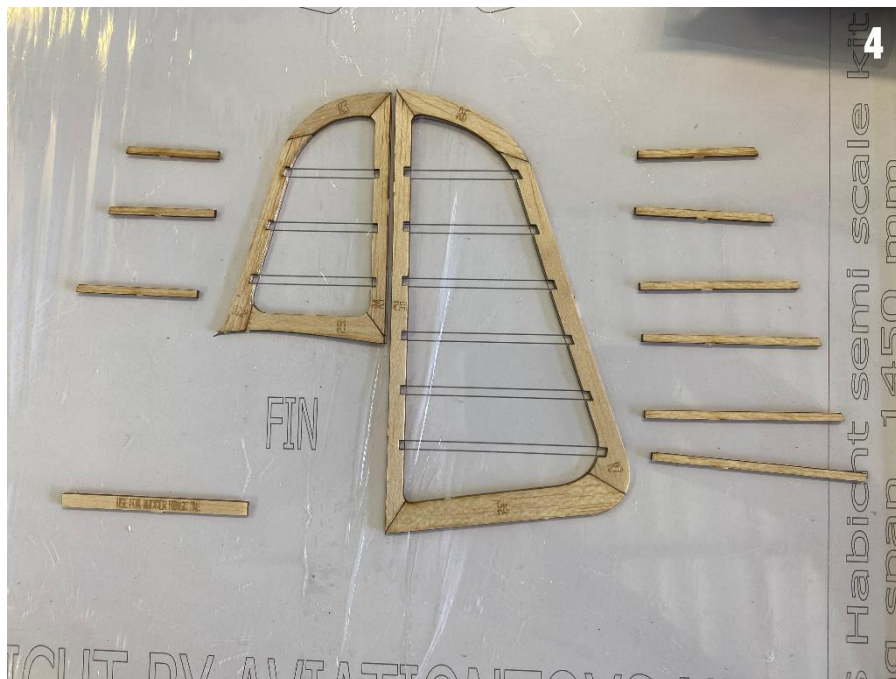
Let's start with the rudder.



Lay out and glue the 2mm balsa parts as shown on the picture. Do not glue the hingelines, Fin and rudder are separate .



Make sure you have glued all parts together like this



Then we add the 2mm balsa strips, they are lasered in the right order..



We will need more stringers.



Just follow the steps as shown on this and the next pictures.



Hinge line first.



Bottom of the fin..



Add another stringer at the bottom and cut into shape.



Now add a stringer to the leading edge of the fin.



Now add stringers on top of the balsa cross strips, see picture.



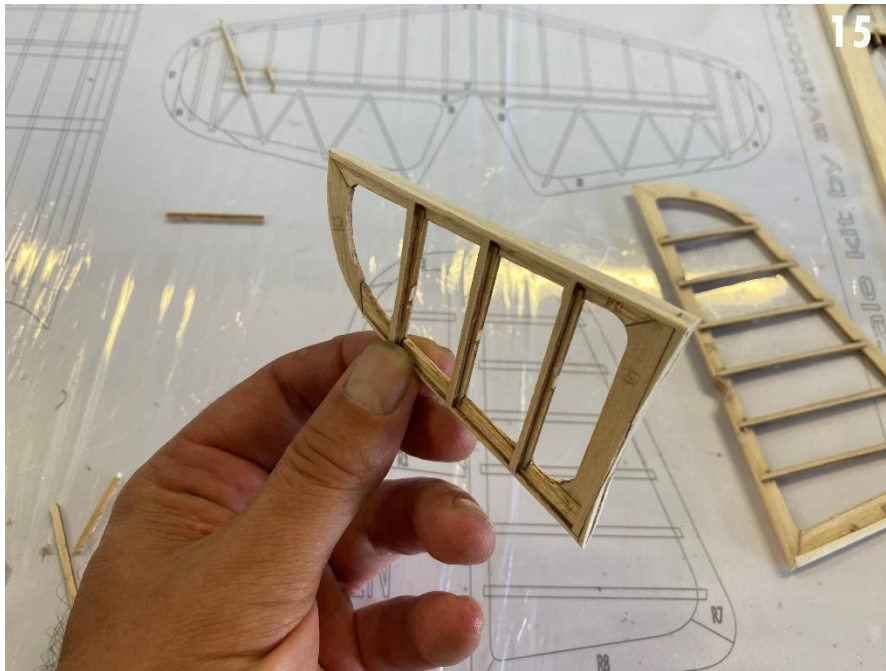
For the rudder it is almost the same process. Add the bottom one first and cut into shape at the trailing edge.



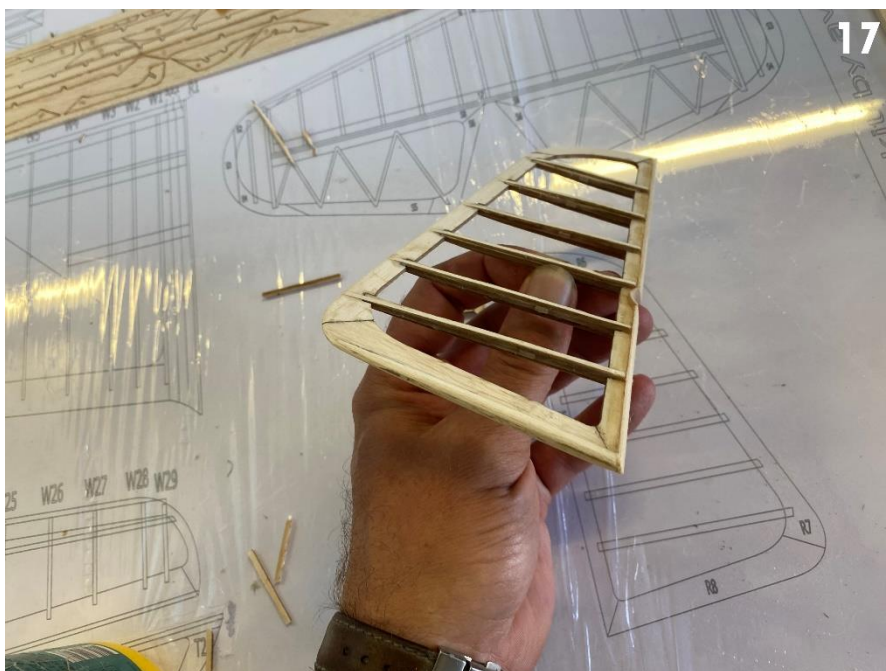
Also here we glue a stringer on top of each balsa cross strip.



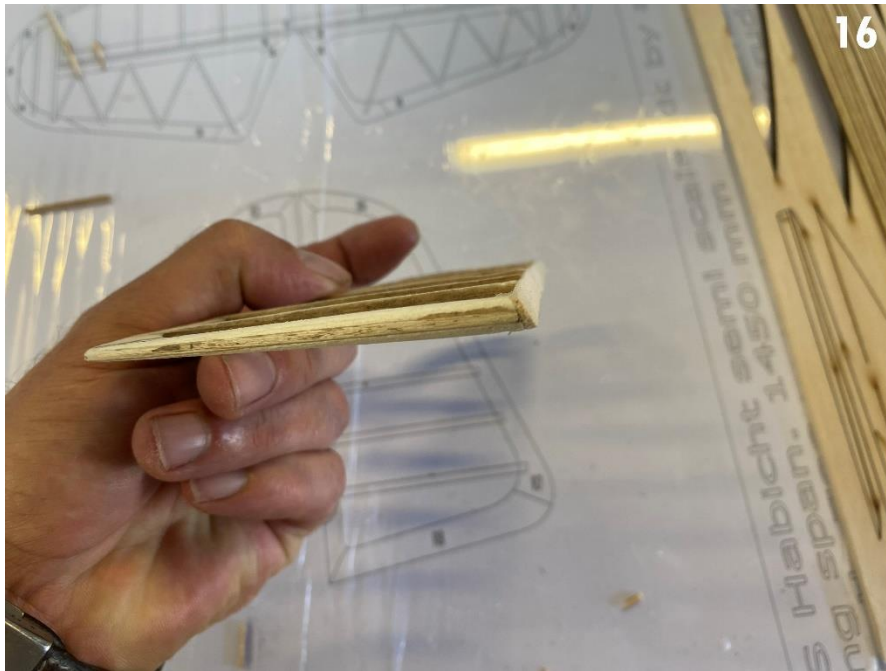
Now we do the same at the other side of the fin and rudder. Then sand the "airfoil" into shape.



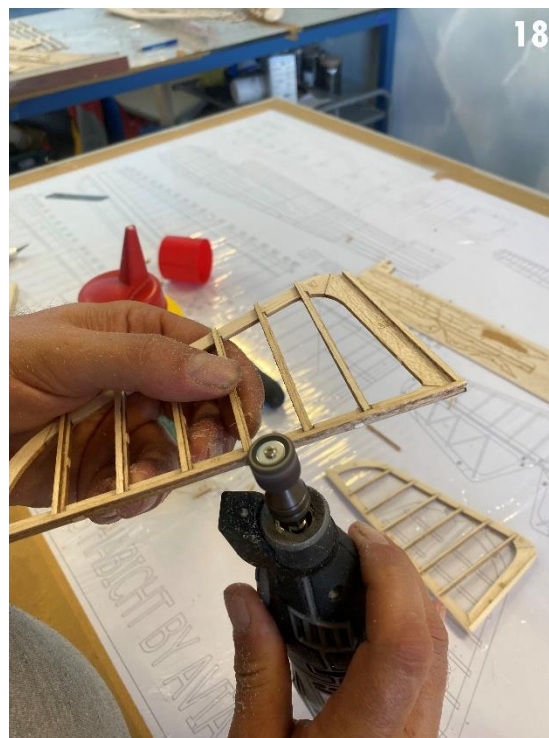
The bottom of the fin needs to be sanded into the correct shape so it will fit nice and tight to the stabiliser air foil.



Sand the bottom of the rudder round.



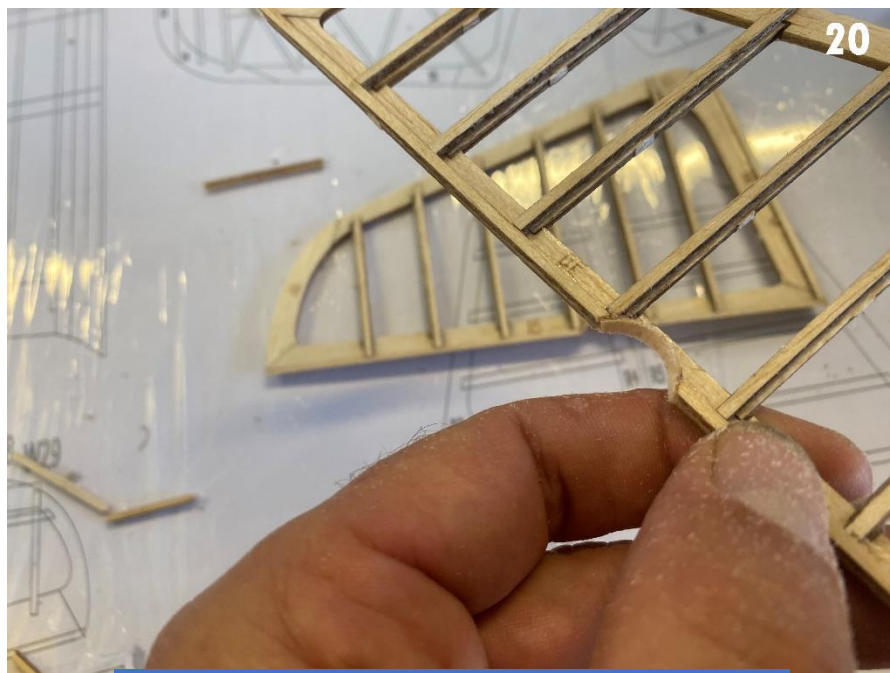
*Here you can see the trailing edge is nice and thin.
The hinge line has an angle so it can move both
directions.*



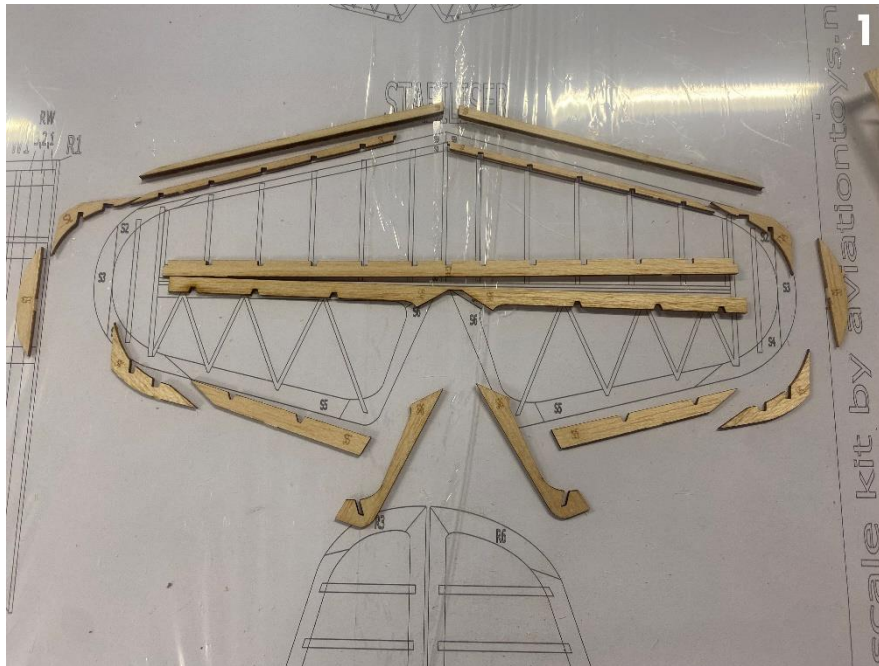
*Here we sand the stringers that make the
hingeline.*



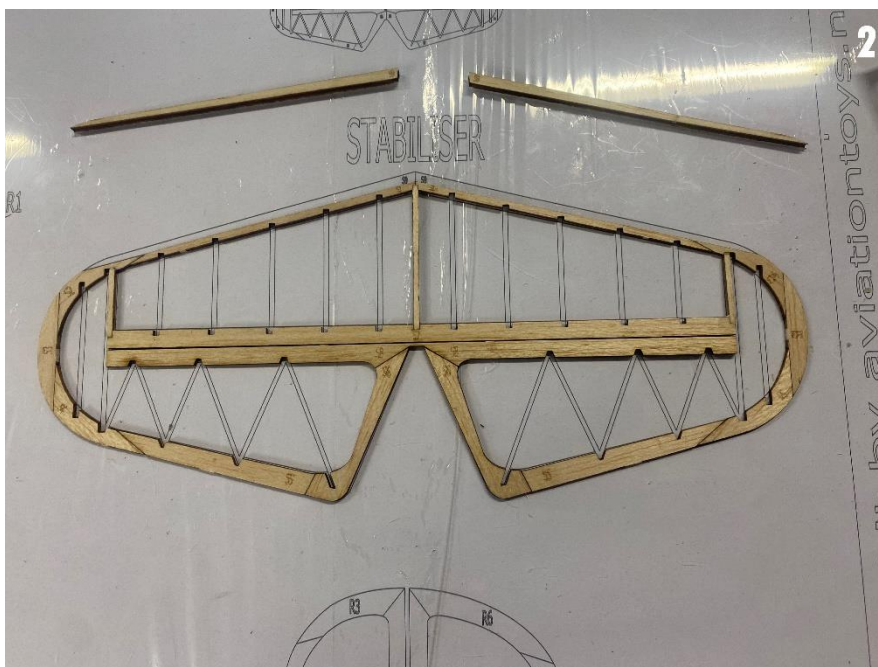
The round part was already lasered at the correct place, we have only sanded the stringers in the previous step. We take some scrap 1mm balsa to finish this.



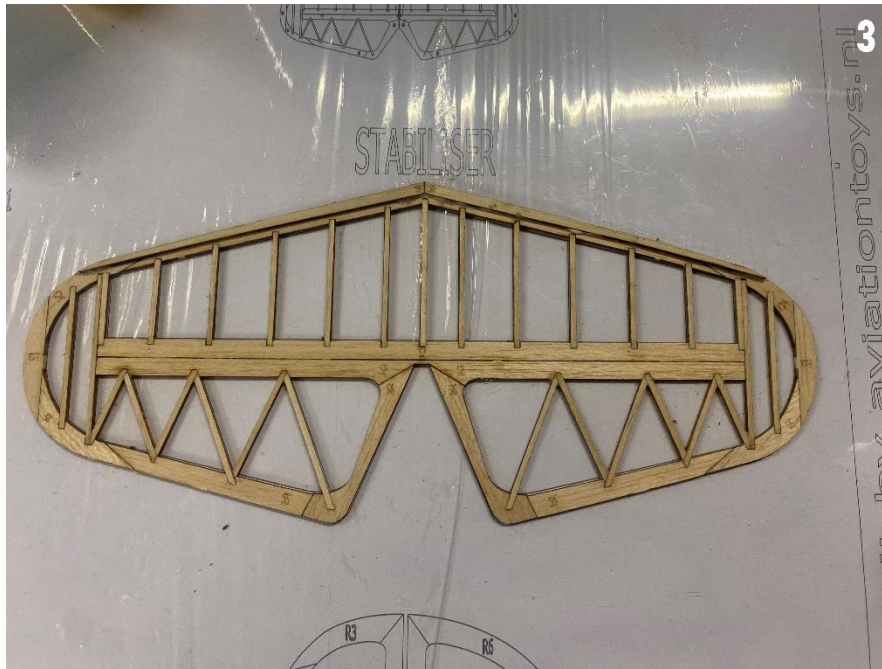
Like this. This way there's room for the elevator and rudder to move all directions, quite important!



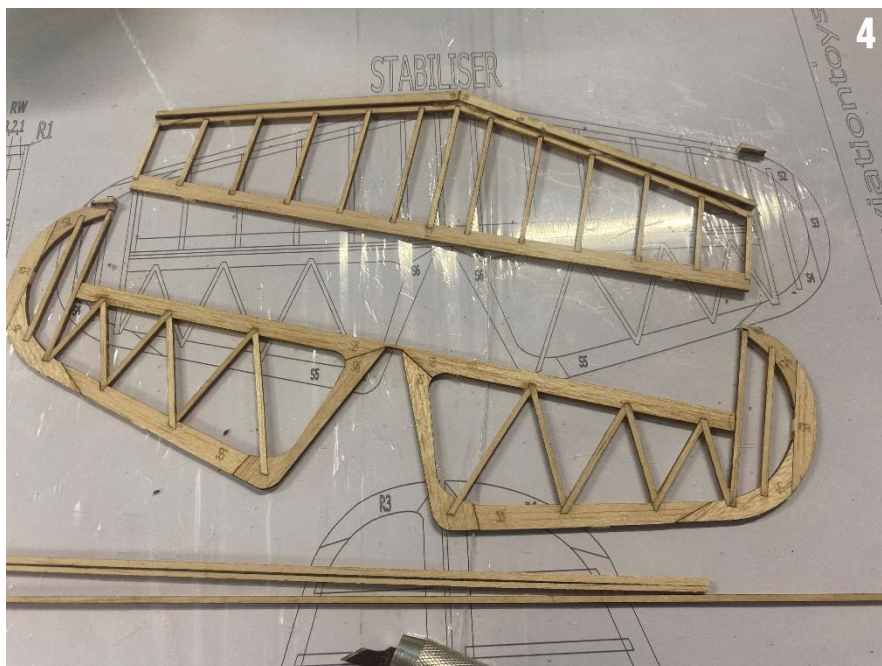
Ok, we continue with the stabiliser and elevator. All parts needed for first steps are shown on the picture, except for the stringers.



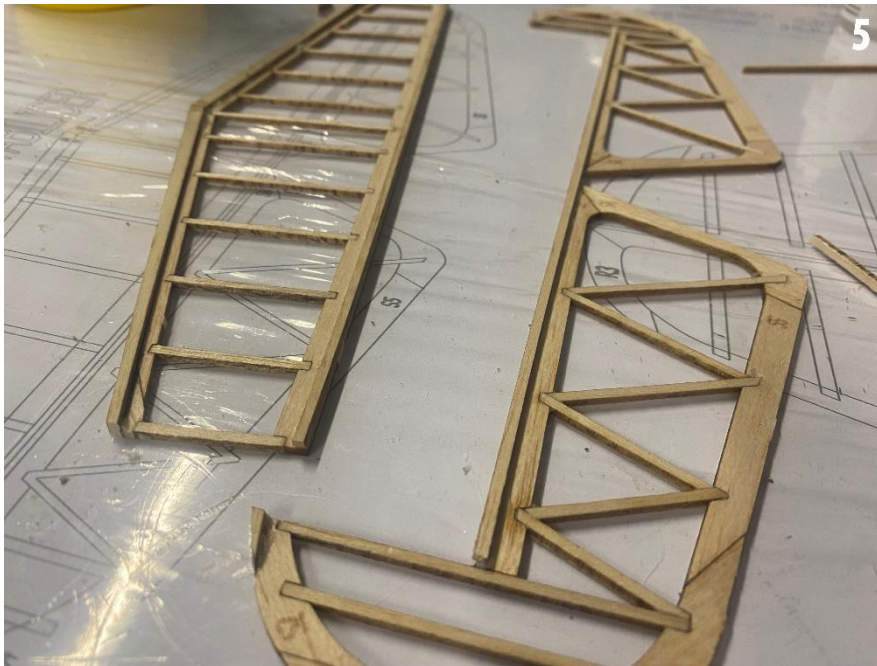
Lay out and glue all parts as shown on the picture. Do not glue the hinge line together! On top you see the 5mm leading edge parts.



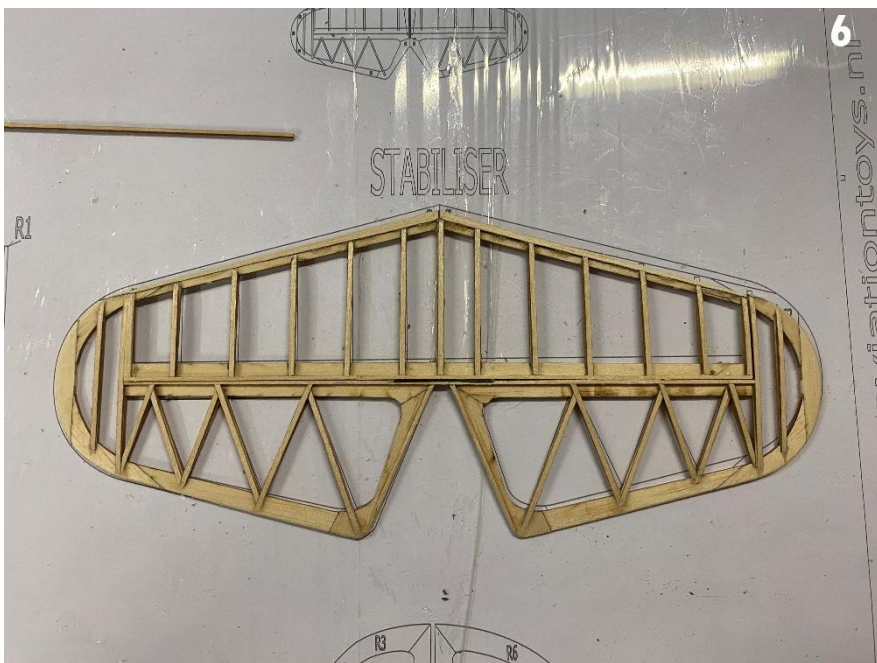
Add the 5mm balsa leading edges and stringers. Again be careful not to glue the hinge line/ stab-elevator together! Take notice of the tips, these are connected/glued to the elevator(back side) and not to the stabiliser(small front side) The picture below shows it.



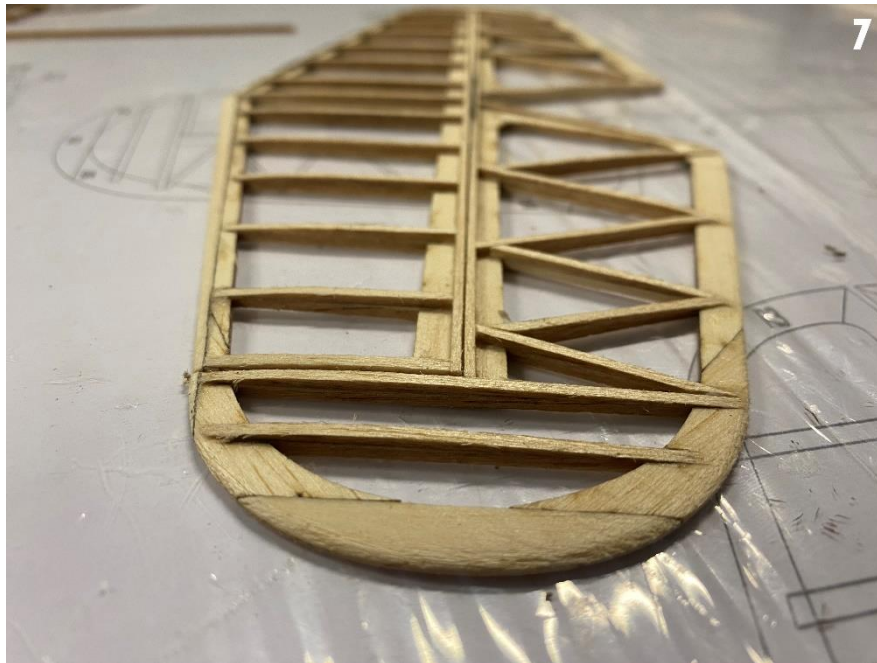
Cut the stabiliser and elevator loose from each other.



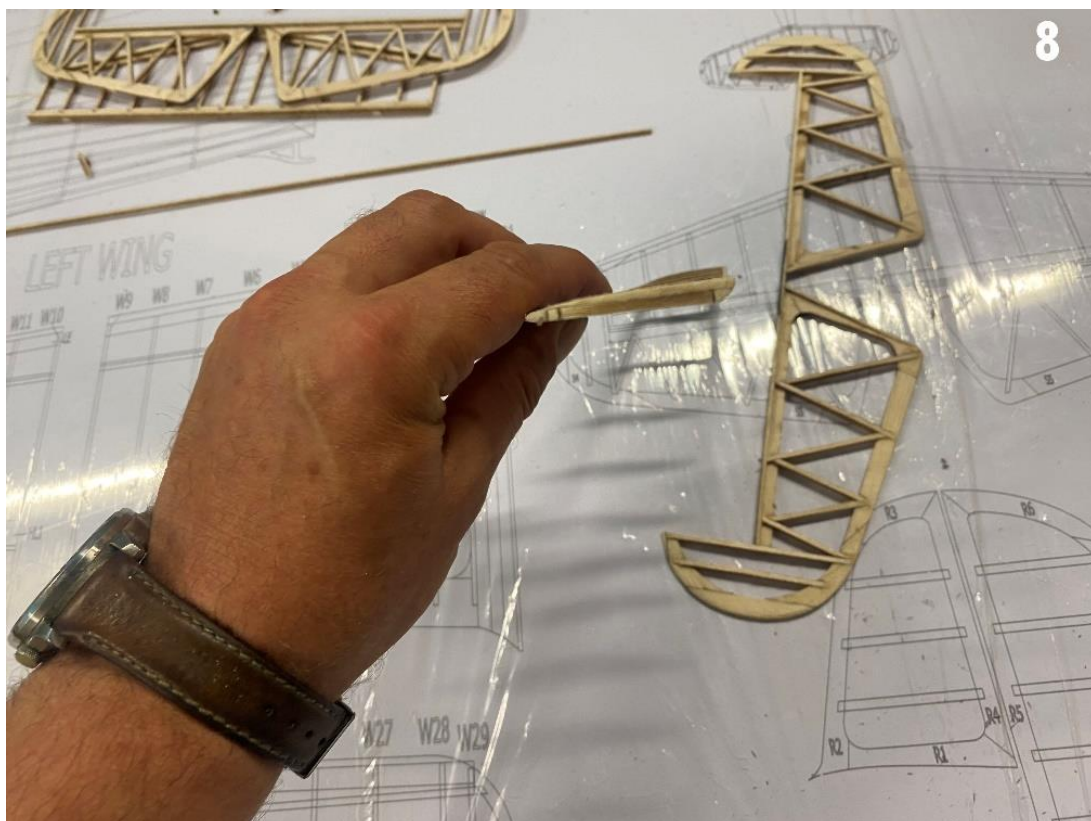
Here we glue stringers on top, start with the hingeline.



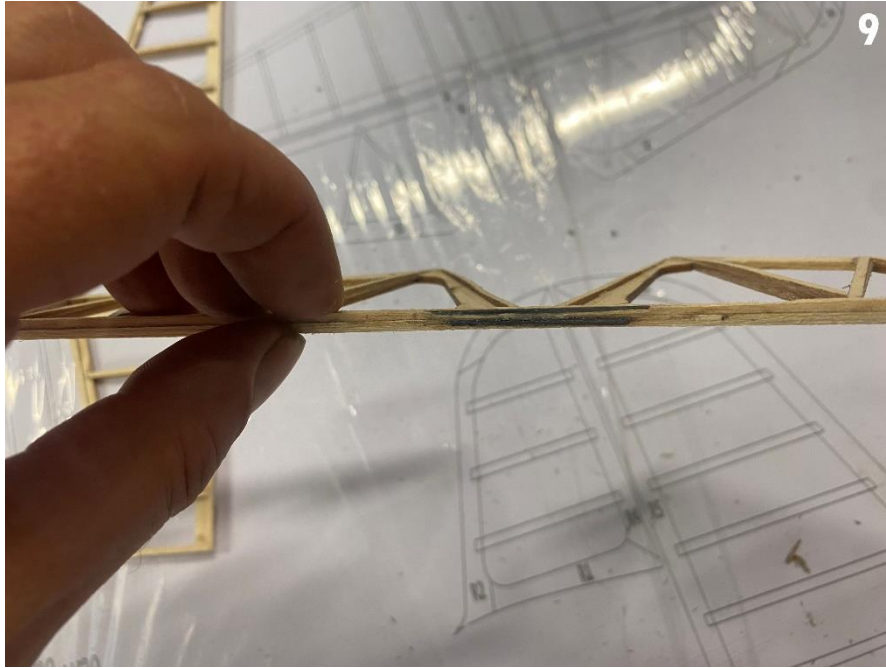
Glue stringers on top of all, except for the trailing edges, check the picture carefully. This is done only at the top side



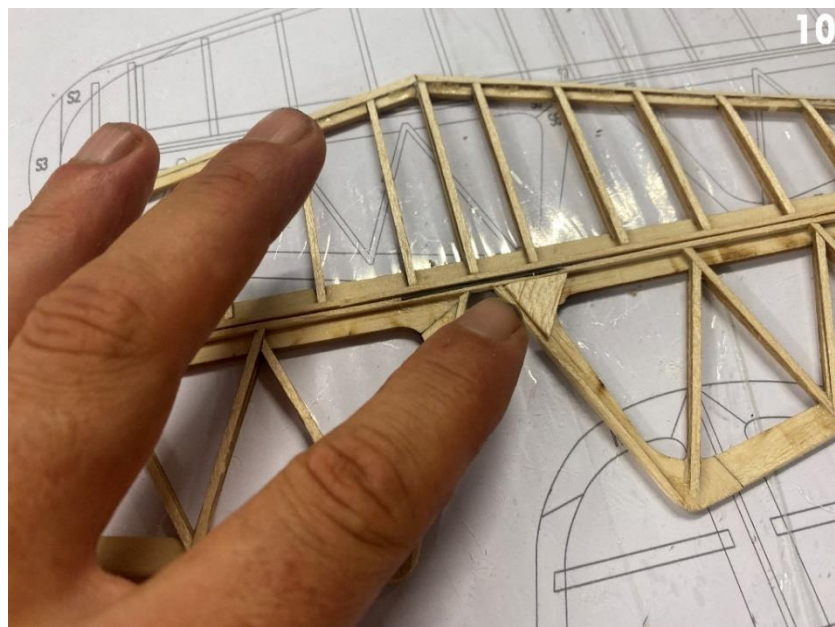
Now sand the stabiliser and elevator so you create a nice airfoil into them, as shown on the picture.



Check the hingeline, sand in the angle so it can move up and down. Leave the "meat" at the top side and sand the bottom so a gap is only seen at the bottom side.



The narrow center of the elevator must be reinforced with some 1mm carbon rod. See picture.



Glue the balsa triangle on top, right side. This to reinforce the area where the horn comes. Sand it down so the surface is nice and smooth like the rest of the elevator.

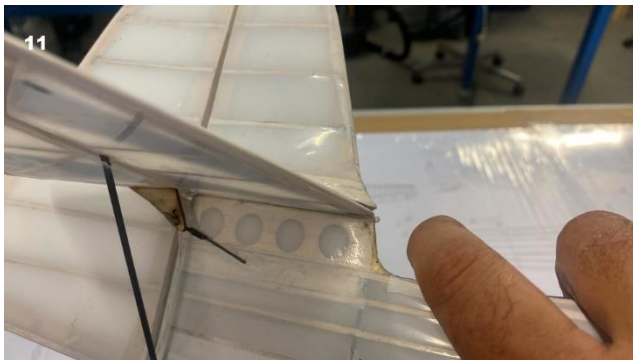
You have now completed the DFS Habicht construction, congratulations! Take a good look and enjoy your work!

Of course there is covering to do and adding final touches such as the pilot, head rest(make from 5mm scrap balsa) and canopy glass. Do not forget the struts underneath the stabiliser. These are made from 2mm carbon rods, or wood, they are mainly for looks and not so much for strength. The stabiliser is glued on the fuselage, it is ok to sand the stabiliser-bed surface so the stabiliser fits nice, but take extra care not to change angle of incidence on the stabiliser.

The fin is glued on top of the stabiliser after covering. For looks it is very rewarding to paint the inside of the cockpit dark brown and when you really like to fiddle around, make a instrument panel. Of course the pilot needs some paint to. Finishing touch would be some electric wire(take out the copper inside) and glue it on the edges of the cockpit.

On the internet you can find cool looking color schemes, original are the blue stripes, this blue is a little bit darker as conventional "baby blue". A lot of you will prefer the red stripes, which is awesome to!

Steering rods. In the kit are carbon rods(0.8mm) which can be used as steering rods(elevator&rudder). For a nice finish it is recommended to glue a strip of balsa between the stringers at the tail, in this strip you can glue the outer steering rod (bowden cable, also in the kit). First make a oval hole in which the bowden cable fits. Make sure to glue the strip for rudder at the left side and for elevator at the right side of the fuselage. Line these up so they are in line with the servo horns.



Here you can see the steering rod for the elevator coming out the fuselage. The balsa strip is made from scrap balsa, the Bowden cable is glued in there, then sanded smooth with the fuselage.



And here you can see the steering rod for the rudder coming out of the fuselage. Same as with the other side, glue the Bowden cable in the balsa strip and then sand it smooth. In the kit the horn is placed at the bottom of the fin, principle is the same.

For the ailerons I advise to use 1.5mm steel wire as steering rods, top drive style. Covering. You can go old skool with dope and tissue or more modern and scale like with ora cover light, white color. Do not underestimate this job, take your time.

Personally I find it hard to choose which style to make, both have their own unique charms. Flying. For first flights try to find a field with high grass, so when things do go wrong the grass acts like a soft bed. Start with easy, level handlaunches, make sure the Habicht glides nice and straight, no stalling, no pulling up. This is achieved with a correct cg and neutral elevator. When she pulls up and stalls a bit, add more nose weight. When she flies a bit to fast, almost diving, take some

nose weight out. It can be a time consuming process, but do it once right and you will have a good flying Habicht each time you let her fly!

High start launch. Make sure previous step is done proper before you try this. In general it is not hard to do, you can let somebody run the line for you or use a rubber-line combo. 15 meter rubber, 4-6mm diameter, with a line of minimal 25 meters will do awesome as a high start. You can add more line if you want. Do not worry about breaking the wings, you can "bunt" all you want, if you have build the wings correctly they will not break. Unless you are Superman of course... I wrote earlier that it is not hard to do, unless.....The tow hook is to far backwards.

At cg and further backwards is not a good place for the tow hook, best is to have the hook just in front of the cg. You can notice that the plane will be very, very "itchy" on rudder when the hook is to far backwards. So please take good care of this before trying bungee and/or high starts. Ballast.

Use ballast when wind is 3bft or more, you can add max. 65 grams extra. When you do not use a high start, the Habicht can carry more. This will be at the slope, but in all honesty when you do need more then 65 grams of ballast the wind is probably to much for this little Habicht. The hatch(back side of the cockpit) has a plywood strip with 3 holes in which you can fix the ballast. Make sure when the ballast-rod is fixed in the middle of the plywood strip, the ballast is exactly on cg. This way you can create a more forward cg by just fixing the ballast-rod in the first(cockpit side) hole. More backwards cg is achieved when you fix it in the 3rd (tail side) hole.

When you have questions, remarks, tips or any kind of feedback, please do not hesitate to contact us; info@aviationtoys.nl And above all ; HAVE FUN!! Vincent Merlijn & Team, aviationtoys.nl



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