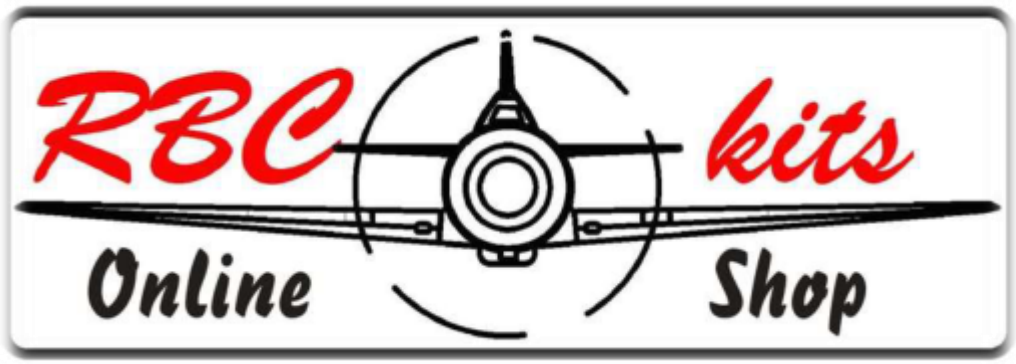


Thank you for purchasing F35 90mm from www.rbckits.com

For the first time, R/C enthusiasts we have a choice in scale and fun flyer aircraft designs.

Our goal, through computer technology and state-of-the-art production techniques, is to offer aircraft which in the past have not been modelled simply because they weren't popular enough to justify mass production. Our production techniques allow us to produce aircraft which, though not as popular and well known as P-51s and P-47s, still offer historical significance (good or bad!), Good looks and flying characteristics, and a uniqueness that is sure to turn heads wherever you take your airplane!

Your airplane has many unique features in its design:

CAD Design

CAD design allows strength to be built into the airplane without sacrificing weight. Accurate parts design and placement ensures a perfect fit.

CAD Drawn Plans

The plans in this kit are not copied from a master set! They are originals drawn directly from the CAD program where the airplane was designed. We do this because it allows us to use colour, which helps you better visualize the various components of the airplane, and we can use better quality paper, which greatly reduces the possibility of shrinkage.

Since you're going to build directly on the plans, they ought to be the proper size! Also, parts placement is guaranteed to be accurate, so you can build a better, straighter model.

Small and hard-to-produce parts are simply a computer file away, so you get a more accurate airplane.

Lightening Holes

Lightening holes are cut into all ribs and formers where possible and justified. This allows us to keep the weight on each plane to a minimum without sacrificing strength.

The same program that generates the design and plans also drives the cnc cutter, so every part is reproduced exactly as it was designed. Cnc cutting also allows us to fit more parts on each sheet of

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wood, reducing the waste, and lowering the cost to you.

Plastics

Several parts are accurately reproduced high quality Polystyrene, the canopy is made from PETG or Lexan

General Building Information

The F35 90MM can be built by a person with experienced building skills. It is not designed for someone who has built a trainer or low wing sport plane. No unusual building techniques are required, although more difficult areas are explained in detail where necessary. Certain steps in the building process must be followed as depicted, or you might find yourself digging back into the structure to redo something. These areas are outlined when necessary. Occasionally hints will be included at certain building steps. These are not required for completion, rather they are tips intended to ease a particular process. The cnc router does cut through the wood, as a result of this, occasionally there will be fraying on the surface of the wood. This is normal, and is only a surface problem and does not affect the wood in any other way. Similarly, the cnc settings are optimized for wood thickness averages, so occasionally, due to variations even in individual sheets, some areas might not cut through completely. Simply use care in cutting the parts from the sheets; most of the time, the parts will break out of the sheets!

Hardware and an edf unit are not included in the kit. There are so many choices for quality hardware that these choices are left to the individual preferences of the builder, rather than include something in the kit that you'll probably throw away anyway.

This aircraft is not a toy. It must be flown in a responsible manner according to the rules set forth by Law. The builder assumes the responsibility for the proper assembly and operation of this product. Rbckits shall have no liability whatsoever, implied or expressed, arising out of the intentional or unintentional neglect, misuse, abuse, or abnormal usage of this product. Rbckits shall have no liability whatsoever arising from the improper or wrongful assembly of the product nor shall it have any liability due to the improper or wrongful use of the assembled product. Rbckits shall have no liability for any and all additions, alterations, and modifications of this product.

Having said that, turn the page and start building the best airplane kits on the market!

Material you might need:
Balsa knife, Stanley knife, straightedge, building board 1500mm
ca glue medium, thin, thick you need approx. 6 bottles, building nails, tape
Or use white glue, and canopy glue, epoxy for the canopy and cowls
Some drilling and bending tools, wire cutter, safety goggles etc. etc.

For finishing you need:
Glass 25 gram or japan paper 12 gr 3mtr and filler dope 1 litre, brushes sanding paper, paint of your choice

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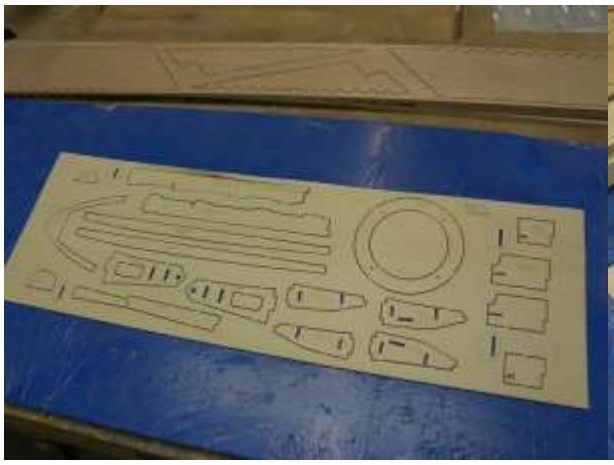
Wheels as on the drawing, controls, motor, battery etc.
All vacuumformings should be roughened up before gluing

Check the 3d pdf (you need adobe x10) and pictures for additional information; a picture says more as a 1000 words so do look at the pictures on the cd

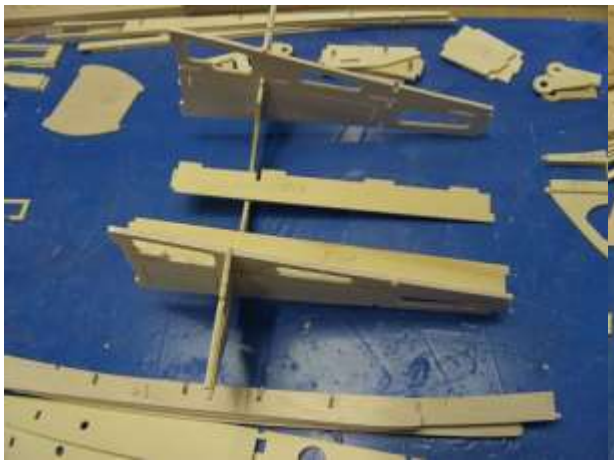
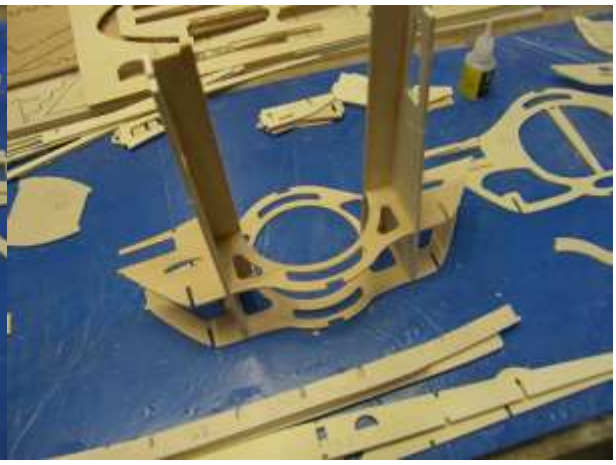
Fuselage:

Start by taking out all formers from their sheet and marking them with the correct nr as per plan.

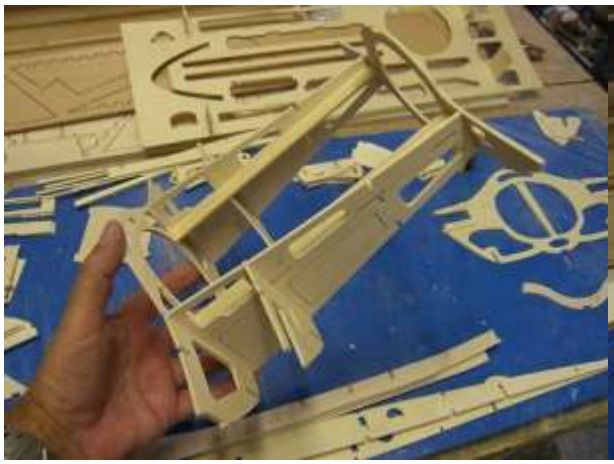
Pin down the build support sheets and place the build support formers.




Build up the tail part of the fuselage formers with the edf formers, DO NOT glue yet

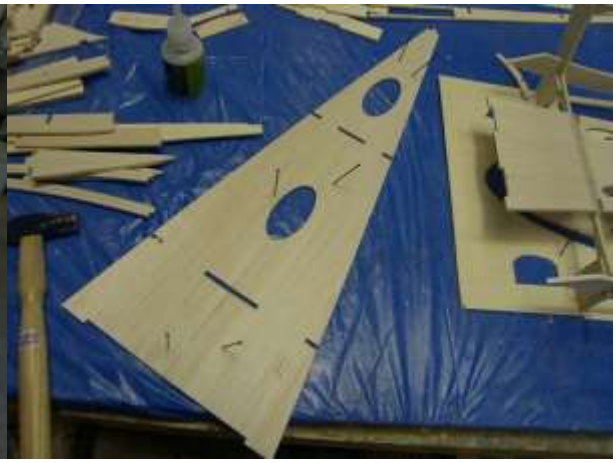
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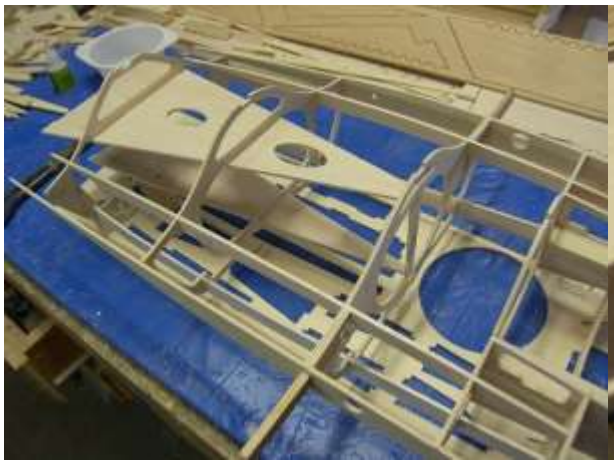
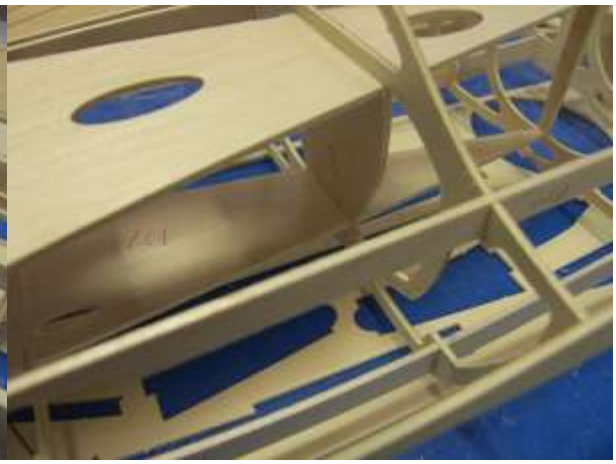

Place carefully the F36 formers with the Midpiece to the build support and place the other formers.



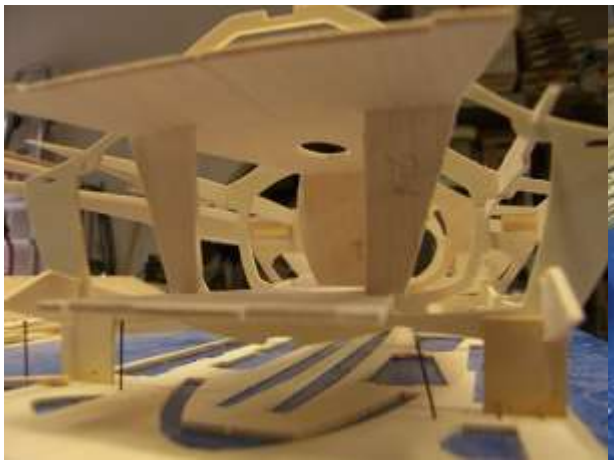

Place bottom formers F35, note do not join them yet. Do not glue anything

Join F38 and join F37 place them in assembly and place top formers F34

Place F18 between F37 and F38.




Place F16 and place former F13

When all formers are in and the fuselage is lined out to the build support, the carefully glue formers with ca or thin white glue so the assembly becomes ridged.

Care should be taken with the tail section do not apply to much pressure here

Place taileron hinges with help from the 6mm carbon rod. And place rudder formers and 6x3 balsa as per plan

Before you put in F44 the servo former, try your servo for fit and fit through the opening in F31

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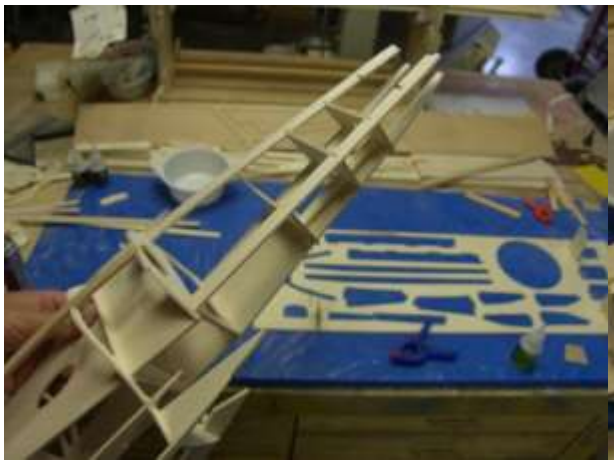
Make the edf hatch, do make a bit of room with help from some thick cardboard along the sides of the hatch, and place top stringers



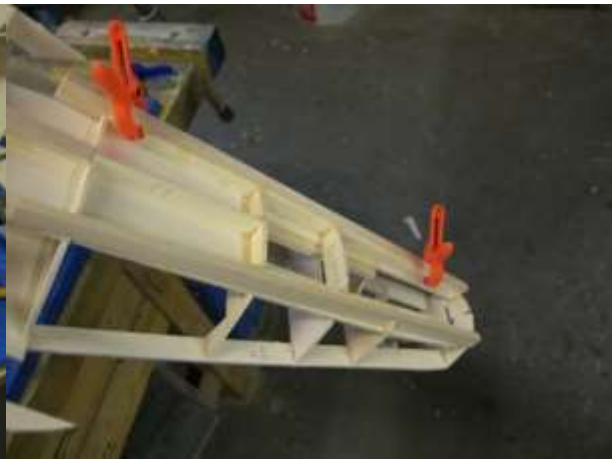
Star by making up the front cabin part with the joining retract formers 92pcs) and glueing to F6 Place Formers one by one do not glue yet until assembly is joined with fuselage



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The fuselage is removed from the building frame as you see turned over and glue the front assembly to the fuselage. Place formers RF5 and fill pieces

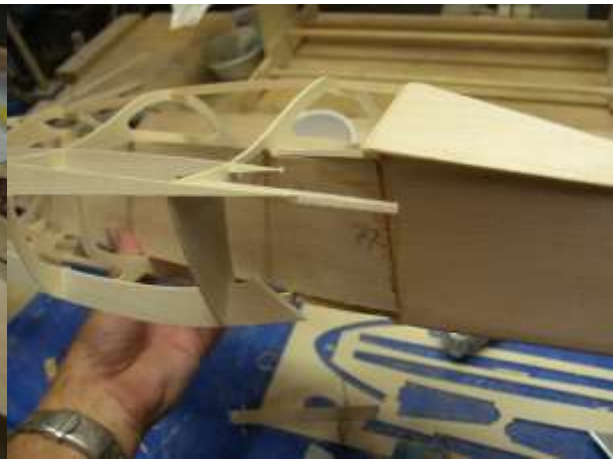
Sheet the bottom part of the cabin retract part




Place top formers F8 and F8B and sheet top part of fuselage front




The duct lining is pre-cut, but carefully slide it in the fuselage

Sand and join them at the edf side, wet the outer duct shells with a little water to make them flexible




Carefully put them in and push them in the corners with help from a drop of ca here and there. They are a 2 piece part 1 slides over the other





Close the gaps on top and bottom of the intake ducts with scrap balsa.

Place F1 into nosecone and sand to fit to the fuselage place dowels 6mm for easy positioning.



Now carefully start sheeting the fuselage with the 2mm balsa sheeting, you might need to sand or plane the edges to obtain a good fit on each other.
Best is to use ca for gluing to the formers and a well sanding balsa glue, like ulu hart between the strips.



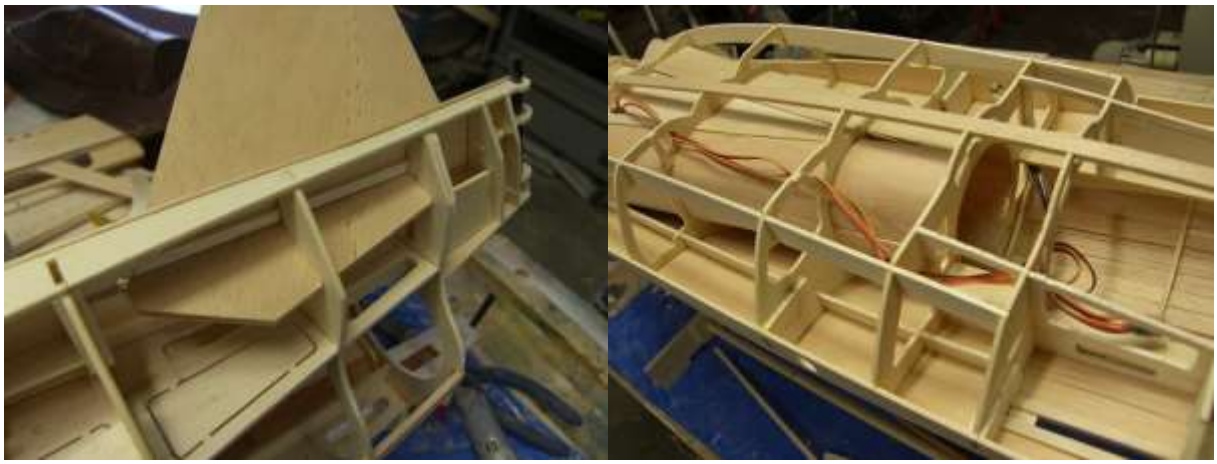

You need 2x12 strip also, cut the rudder openings.




Check for good fit of the rudders. And place all your wiring for battery retracts etc.

When top sheeting is done you can carefully release the fuselage from the build support and turn it over, we use a model stand for easy handling see https://www.rbckits.com/shop/model-stand-medium.html

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Sheet the bottom with balsa 2 and balsa 2mm strip

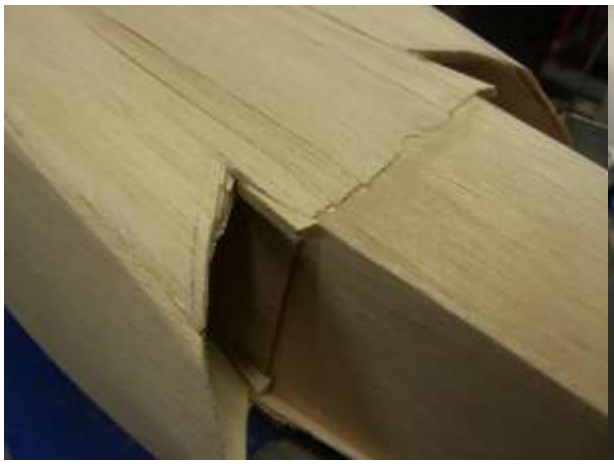


Sand sides and sheet them.



Sand the intakes to shape. Make the front retract opening and place retract.

Place wings to fuselage, we use slow glue for this




Place steering servo




Use braided wire for steering

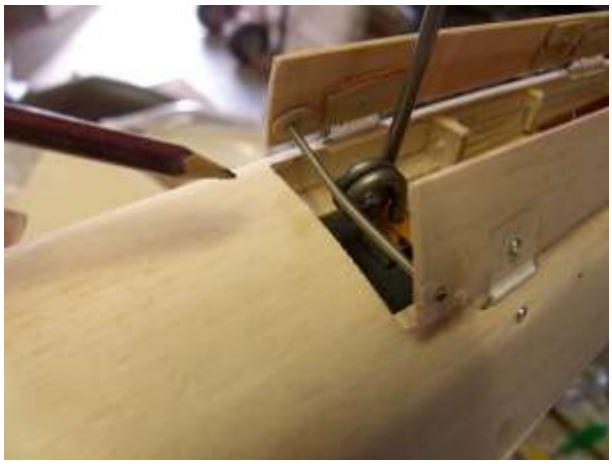



Make the hatch from the cut-out or place cut-out with an opening for the wheel and leg closing.

We used a wire closing and spring to open the hatch, we fasten the hatch to Kavan hinges for easy

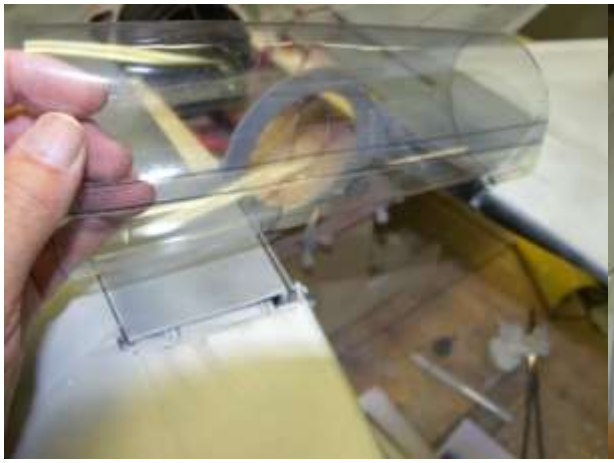
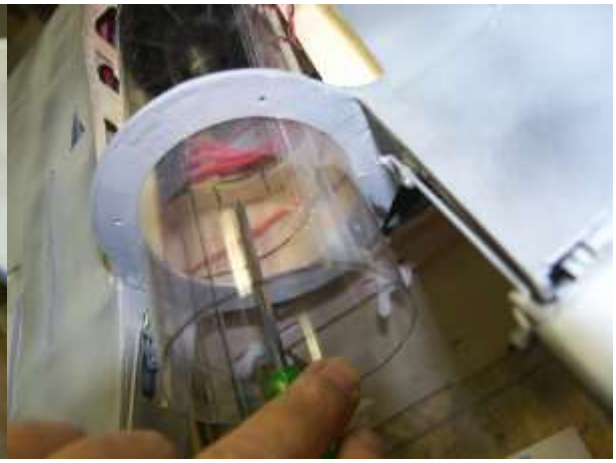
removal, and we used 2,2x6mm fasteners





Place edf and controller and wiring make the exhaust duct from the supplied PVC sheet as per plan.

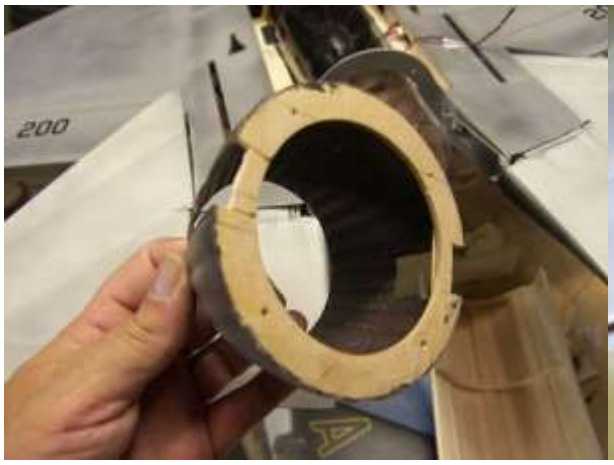
Join the duct with tape, fold it in and place into fuselage to edf unit

Make the tail cone from F40 and the vacuum formed cone; open the sides to clear the taileron servos

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Fasten the exhaust cone with 2,9x13 fasteners; this will also hold the exhaust duct





Cut the canopy to the inscribed lines and glue to the canopy frame CF1, CF2, CF3 fastener and CF4,CF6

The canopy back part is glued to the fuselage and holds CF4

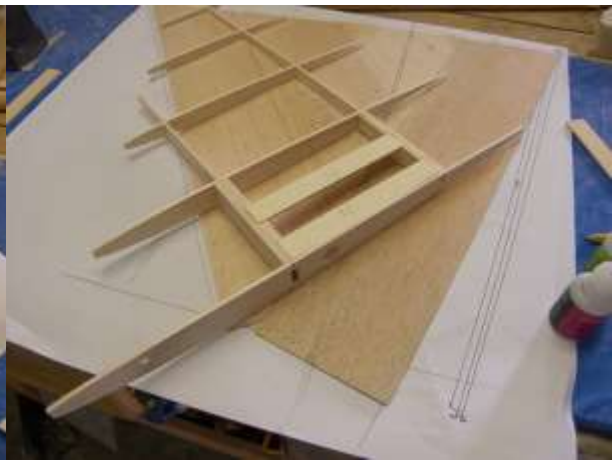



Wings:

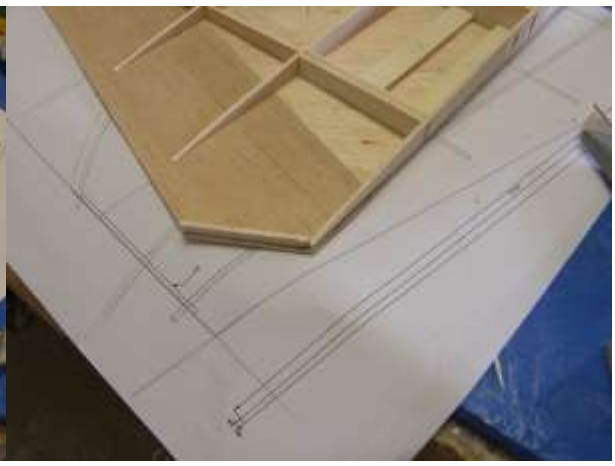
Start with a flat building board with the size for the wing and fuselage
Place the drawing of the wing on the building board and protect it with plastic.

Start by making the bottom sheeting from the supplied balsa sheet, place the sheets on the work plate and nail them down , use cello-tape to connect the edges, take them off and glue the edges with thick ca , place on the work plate and sand down the glued edge, turn the sheet over and take of the cello tape and sand the edges, now there will be one smooth side and a lesser smooth side , this is because of the thickness of the balsa is not even, the non-smooth side will be the inside of the sheeting.

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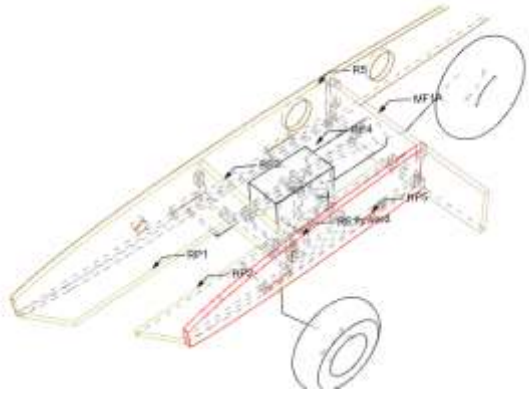
Take out all ribs and formers out of their sheets; you can mark the formers with a soft pencil if you like sand of all holding tabs.

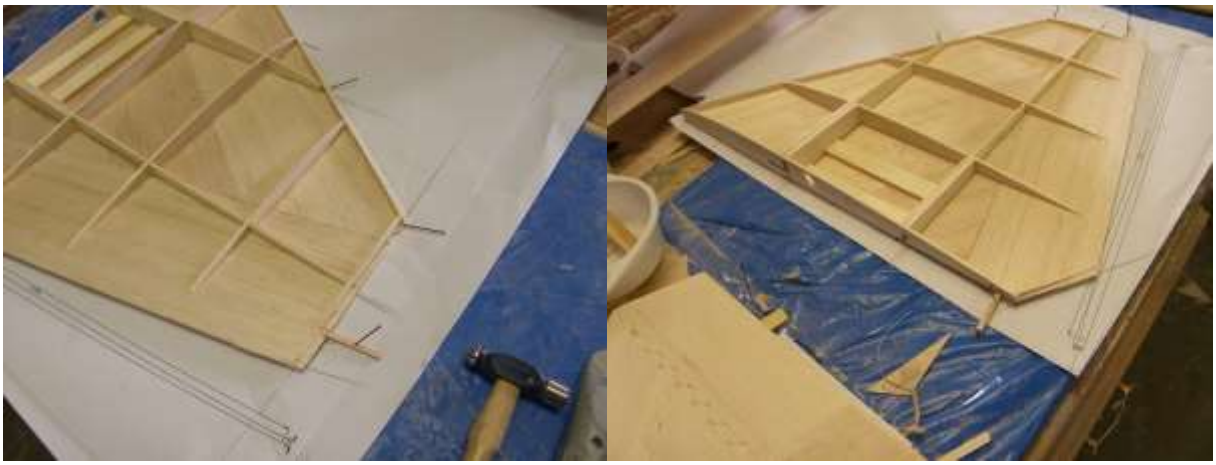
Place main formers on bottom and place doublers; check the drawing for the correct position of the doublers. Frame up the wing assembly on the sheeting
Mark the main-formers ribs on the bottom sheeting, place main-formers on sheeting place ribs, do not glue yet, make sure for straightness.
If all seems ok then pin down the main former and start glueing the ribs with thin ca one by one to the bottom sheeting, note roll the ribs over the sheeting and apply ca

Glue wing assembly to bottom sheeting. Place retract formers in front part of wing (not as shown on build pictures)

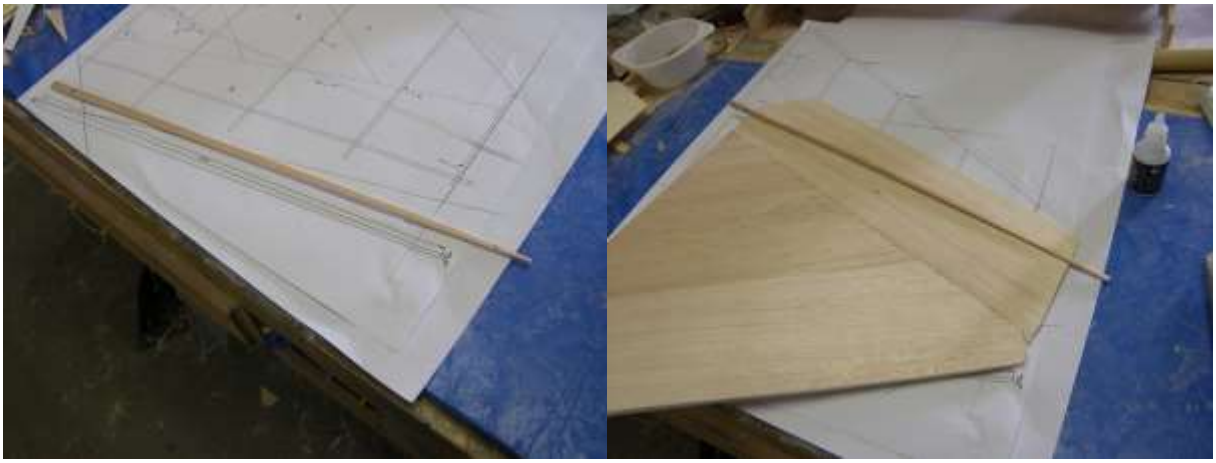
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Place other side main formers and ribs; work out wing same as start side



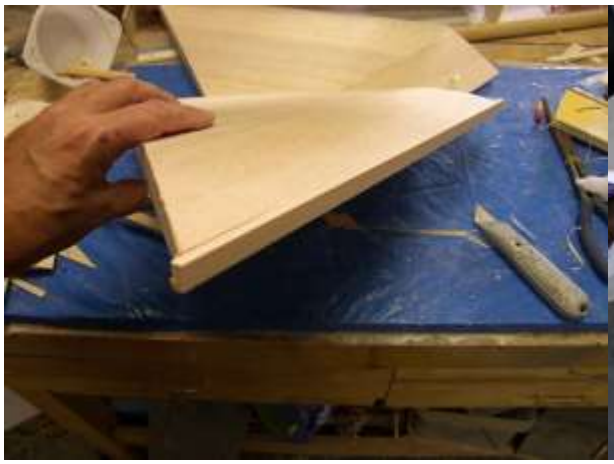
Place sub leading edge to the bottom sheeting and to the ribs.
Do this the same for the other side of the wing. sand the sub leading edge to the ribs .
Make up the top sheeting as per plan, do make oversize, turn over wing and place the help former as per plan with a few drops of ca



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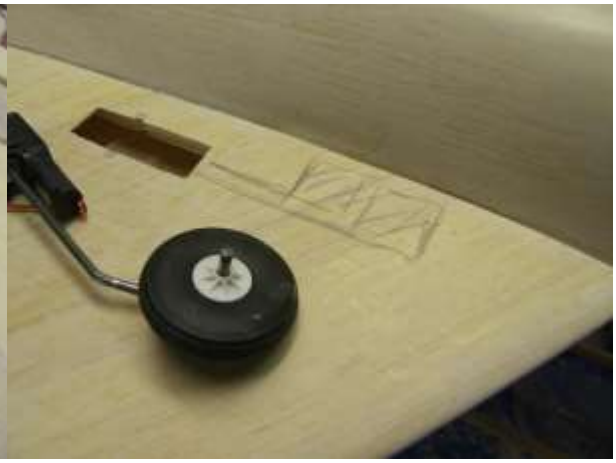
Pin down one wing side as the marked position as per plan, cut the sheeting as close to the wing as practical,
Start sheeting from the sub leading edge backwards, and glue sheeting to formers.

Place leading edge and sand to shape, make up wing tips and sand these to shape and to match the wing




Place wing joiners and dowels, do not glue yet

Open up the bottom sheeting to place the retract units in your kit they will be in the forward bay, unless you want to have the more scale position, it will make rotating more difficult.

The leg and wheel openings are cut.

Cut out the landing gear hatches and glue to the fuselage

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Cut around the vacuum formed hatches to take out the assembled hatch. Take out the temp former




Make the wing fairings fit and cut the wheel doors, line them with 3x6 balsas.




Place hinges and closing wires as per drawing, or use extra servos for the wheel doors

Stabilizer and rudders:

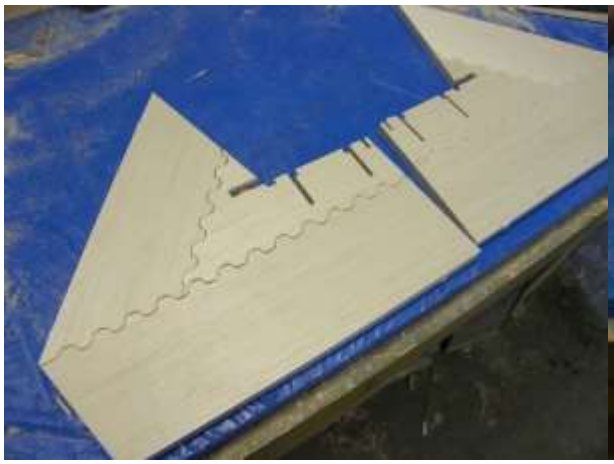
Rudders:

Make up the rudder parts as per plan, they are simple sheet, sand them to shape

Stabilizer:

Make up parts and sheeting as per plan sand taileron to shape place hinges and horn with help from the 6mm carbon rod

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Do try fit to fuselage for throws and free movement




Place scrap fills to the tailerons as per plan and sand to shape




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Finishing:

The whole airframe is covered in 12gr japan paper and doped with filler dope, DO NOT USE SHRINKING DOPE EVER.
Filler dope is not too hard to sand, and filled with some extra talcum powder sands great and smooth, when ready a thinned layer of sanding dope is OK
Now finish with... Vallejo, humbrol or we used cheap spray cans... take care for the vacuumformings as some paints will not hold as good, or worse will dissolve or make it brittle
Canopy:
Cut oversize... And test fit to fuselage, glue with canopy glue, or ca and make it lively with pilot, radios, etc. The canopy framing can be painted on

Have you found an error in the drawing or parts or instructions, just mail us at info@rbckits.com
I am sure we can find a solution for your build.

Some tips:

We used electric retracts for the F35 90mm, and we used a separate battery for the retracts this makes it safer, air set is also possible, the weight difference is none

Flying:

The F35 90mm easy lifts of and is easy to fly you do not need flaps for take-off! (this does not work flaps gives a nose heavy moment), landing: plan it in and land it as usual but do not make it to slow .the F35 90mm glides very well with wheels in in case of ….

A 6S battery is powerful enough, 8S possible or Turbine

Throws of the rudders etc., we like them big, but it might be too much so always, make them large and have a dual rate button in your fingers, to small throws is most of the time problems, to large... it is in your fingers

If you need additional pictures, just ask.

Have Fun with the F35 90MM

Additional pictures are on the disk , also a 3d pdf , where you can see all parts of the F35 90mm in 3d , you need adobe 10X to view, it will not work in your browser

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