

## Fokker Dr1

There can be very few people, including those with no particular interest in aircraft, who haven't heard of the Red Baron and his legendary triplane mount.

Despite how few of them were actually built their fame seems out of all proportion to the impact the aircraft itself had on the war in the air. All due, of course, to the excellent pilots that flew the type Manfred von Richthofen and Werner Voss being just two amongst many.

## GENERAL

There is no dihedral on any of the wings, so if at all possible the top wing should be built using leading edge and spars that are full span.

The brass strips specified on the centre section struts are not essential, but will assist with quickly being able to set the correct incidence when gluing the top wing in place. Do not use CA glue for this task, but slow setting epoxy to allow time to set it up accurately.

When fitting the axle wing to the landing gear fit it to the wire parts before gluing in the suitably grooved laminated parts SW1. The exact angle of the axle wing isn't that important, what is important is that that angle cannot alter. A model that has to be re-trimmed after every flight soon becomes a liability.

Reinforce the cable exit positions with small, slotted discs of hinge material glued to the outer face of the covering. There were reinforcing patches in those positions on the real aircraft so these add extra scale detail.



## FUSELAGE

Build two identical side frames over the plan using strip wood and the laser cut parts FS. Note how the top 1/8 sq. longeron is tapered at the rear to ease adding the top sheeting.

Join the sides using formers F1, F2, F3 & F4, parts SM and UC and cross braces at the F5 position. Pull in the tail and add remaining cross braces and part TS, followed by all remaining formers.

Fit and securely glue the wing and strut tubes. Bind and glue the wire parts in place, soldering as indicated, before adding the upper sheeting and lower sheet fill. It is necessary to groove the front face of F1 to allow the binding to be recessed so it doesn't get in the way of the cowl.

Pay careful attention to which way round F1 goes. The small hole should be off set to the right when viewed from the front. M/MA centre on this hole so that the motor shaft will centre in the hole in part N once down and side thrust are set up. Taper MA, glue (epoxy) M to it and epoxy the assembly to F1.

Fit the 1/8 bass side stringers, shaping those indicated to allow the 1/64 ply fairing to form a half cone shape once glued in place. This fairing is as per the original and allows the covering to run from the upper decking sheet, over the hump and terminate around the lower wing position. It should only be attached to F1, the upper sheet decking and around the lower wing seat, not to all the woodwork.

## COWL

Laminate parts C1 and glue them to C2. Wrap an over length strip of 1/32 ply around C2, gluing it in place. Fit C3 ensuring it aligns with C2/C1. Trim the lower ends of the ply strip as shown, shape the C1 assembly and glue in place N.

The cowl may either be glued to the fuselage, or retained using your favourite method.

## TAIL SURFACES

Laminate the outlines, allow to dry and then build the tail surfaces over the plan using strip wood and the laser cut parts. Allow to dry thoroughly.

Cut the elevator horn slots, sand overall and round off all edges that require it.

Drill and groove the elevators for the wire joiner and glue it in place.

## AXLE WING

Build this over the plan, allow to dry and glue in place the ply sheeting while it is still pinned to the board to avoid warping. Trim and sand.

Work it into place on the assembled u/c wires, groove the laminated ribs SW1 as indicated and glue them into place, locking the axle wing at roughly zero degrees incidence.

A final light sanding will see it ready to cover.

## WINGS

Since all the wings follow the same basic procedure, and the lower and middle wings are pretty much self explanatory, I'll briefly detail any points of interest before going on to the more complicated top wing.

All wing tips may be curved slightly to follow the under camber of the ribs. This is extremely close to the actual section used on the full-size aircraft.

Part M fits from level with the bottom of R3M into the slot at the rear of R2M. If desired some scrap balsa may be added to round it off, but as drawn is how it was on the original.

Wing joiner tubes should be epoxied in place.

Before building the top wing make sure you servos fit into the openings in ribs RT4. Fitting them now may be easier than attempting to fit them after the wing is built.

Slip the ribs onto the full length spars, including the laminated assemblies that form the strut sockets. If the fit is snug, sand the spars lightly so that you don't break the ribs moving them into position on the spars.

Pin down TTE, ATE and the 1/8x3/8 leading edge piece over the plan and glue the relevant ribs to TTE while pinning down the assembled spars/ribs. Carry out a final alignment check before gluing the ribs to the spars and the full length leading edge pieces.

Glue in place the 1/8 balsa false trailing edge, but only pin in place the 3/16 balsa aileron leading edge.

Fit the scrap balsa gussets, all aileron ribs, parts HP and TEX.

Wing tips are easier to fit after the wings have been removed from the board, as are parts EP.

Trim leading and trailing edges to shape and sand overall.

## ASSEMBLY

Begin by checking which way the interplane struts fit and mark them accordingly.

Fit the wing mounting wires and glue them into the fuselage tubes before slipping on the lower and middle wing panels. Glue the wings to the fuselage sides.

Use the supplied template pattern (it matches both middle/upper and middle/lower wing spacing) to ensure spacing is correct and glue in the interplane struts.

Using the brass strip guides, or the template, glue the top wing onto the c/s struts and interplane struts. Check alignment before allowing to dry completely.

Use this assembly as a guide to aligning the tailplane as you glue that in place.

Carefully cut the hinge slots for the rudder to ensure that too will align correctly and secure it in position.

Make up the closed loop linkages (easier if the lower fuselage isn't covered yet), route the aileron servo extension leads (preferably faired into the c/s struts) and arrange the thin aluminium access hatch to your preference.

Stand back and admire your handiwork.

## FLYING

Triplanes are notorious for poor ground handling, so be ready on the rudder stick. Also, landings can be fraught. A 3 point landing usually means the wheels, promptly followed by the top of the top wing and rudder. Therefore, fly the model onto the ground and use elevator to hold down the tail as speed decays.

Other than these points the model will prove relatively easy to fly once off the ground. It is, however, vital that the model balances slightly nose low when supported at the point shown on the plan. Then you can go Snoopy hunting in safety.

### List of additional materials

3/16 x 1/2 balsa medium x 3 off

1/8 x 3/8 balsa med/hard x 3 off

1/8 x 3/8 bass x 3 off

1/8 x 1/4 bass x 3 off

1 sheet of 1/16, 1/8 medium balsa sheet, 1/2 sheet of medium 3/16 sheet

12 x 12" 1/64 ply, 2 lengths each 12 and 14swg music wire

1/8sq medium/hard for longerons x 10 off

36 inch wingspan Scale 1.53"=1ft

Suitable for 480 size motors

3 sheet plan included

4 channel radio - ESC, rudder, aileron  
& elevator



Designed by Peter Rake exclusively for



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