

# Bob's Card Models

[www.bobscardmodels.altervista.org](http://www.bobscardmodels.altervista.org) and [www.zealot.com](http://www.zealot.com) [Resources]



## **Robin DR400-140B Major 1:25**

The Robin sport monoplane, conceived by Pierre Robin and Jean Délémontez. The Robin DR400 first flew in 1972 and was still in production in 2008. It has a tricycle undercarriage, and can carry four people. The DR400 aircraft have the 'cranked wing' configuration, in which the dihedral angle of the outer wing is much greater than the inboard, a configuration which they share with Jodel aircraft. This model is considered easy to fly by many and quiet during flight due to its wooden frame.

The markings on this model are those for one (F-GJQC) of the 3 “Robins” belonging to the St Yan flying club in Burgundy, France.

## **Specifications**

Data from The Illustrated Encyclopedia of Aircraft (Part Work 1982-1985), 1985, Orbis Publishing, Page 2799

### **General characteristics**

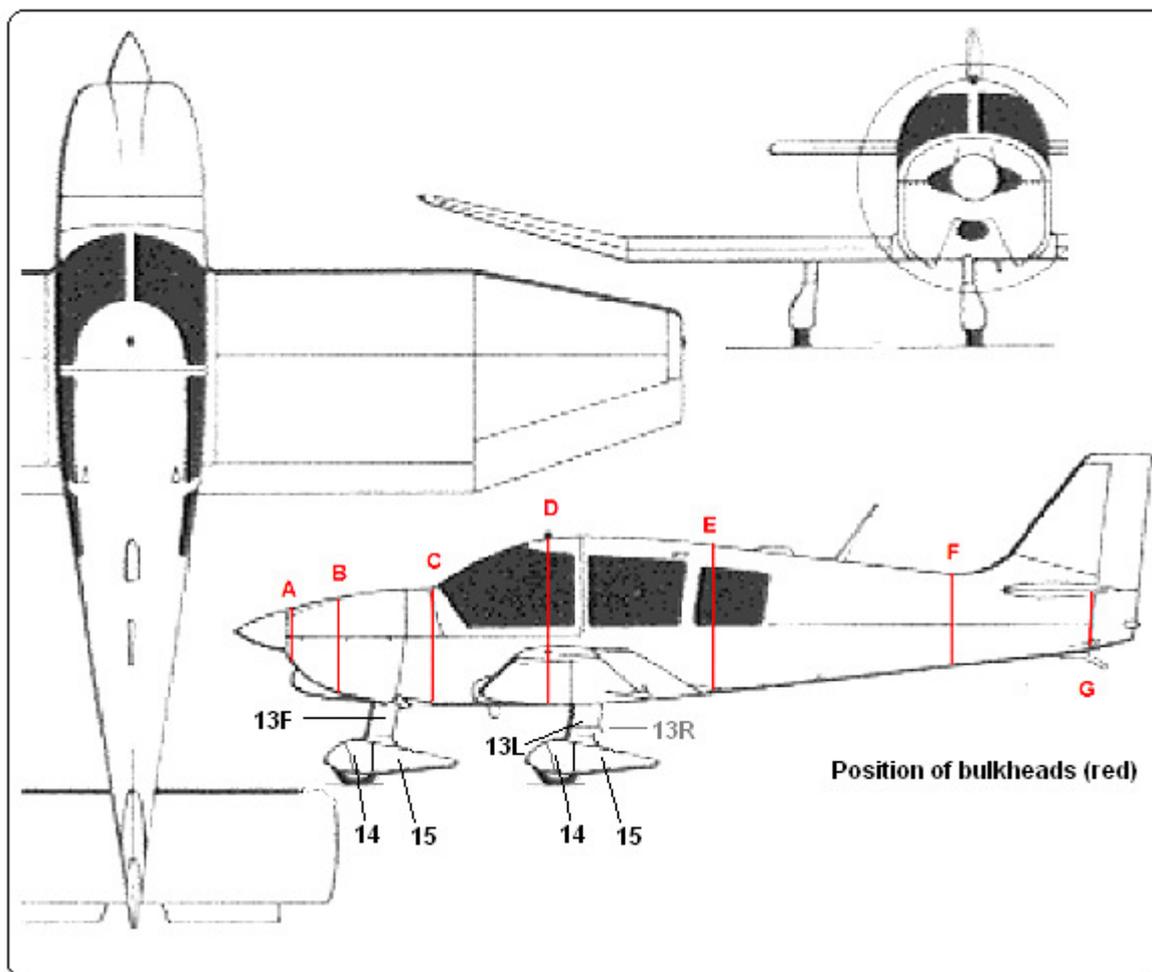
Capacity: 4  
Length: 6.96 m

Wingspan: 8.72 m  
Height: 2.23 m Wing area: 14.20 m<sup>2</sup> (152.85 ft<sup>2</sup>)  
Empty weight: 600 kg  
Gross weight: 1100  
Powerplant: 1 × Lycoming O-360-A flat-four piston engine, 134 kW (180 hp)

### Performance

Maximum speed: 278 km/h  
Range: 1450 km  
Service ceiling: 4715 m

## Building Instructions



Print all sheets on between 160 and 230g card, except Instructions and Sheets and which should be printed on 80 - 90g Paper.

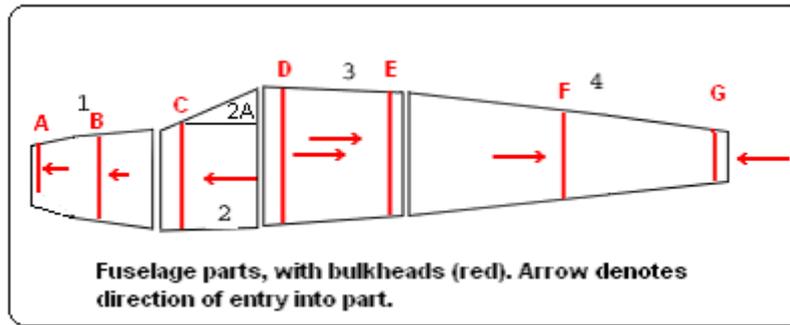
Always carefully fit parts together before gluing, and make minor adjustments if necessary.

**Bright Green areas must be cut out, BUT only after gluing any folds. The Instructions will tell you when!**

Although the model is relatively small, bulkheads have also been used to keep the correct cross-sectional form of the fuselage; therefore, they don't have to be glued all around, but rather tacked in place (do not tack on the green areas, which will anyway be cut off). The bulkheads should not be pressed in firmly, but loosely, otherwise after gluing, an unwanted ribbing effect is seen on the outside.

Make sure that the bulkheads are correctly installed - lined up with the external seam.

### Fuselage



1. Cut out all bulkheads (BH), and make 3x thick, by gluing on waste card.
2. Cut out parts **1** to **4**, round close and glue each of the tabs.
3. Glue tab strip **2-3** onto front of part **3**, and tab strip **3-4** onto rear end of part **3**.
2. In **4**, glue BH **F** in place, then BH **G** in rear end of **4**, and finally glue in tab **4B** on rear.
3. In **3**, insert and glue BH's **E** then **D** through the front end, and glue/tack in place. Glue **3** onto **4**.
4. Glue **2A** onto **3**.
5. Cut out green area of part **2** (for cockpit, **not** for wing!), then glue **2** onto **2A/3**.
6. Glue tab-strip **1-2** onto **2**, then from rear, insert and glue/tack on BH **C**, after cutting out its green area.
7. Glue tab/strip **1-2** on **2**.
8. Part **1**: Insert BH **A** so that it is 'countersunk' about 0.5-2mm from the front, then insert/tack BH **B**. NB! Before tacking BH **B**, insert a cocktail stick (= prop shaft) through holes in **A** and **B** to make sure that the shaft is horizontal, before tacking/gluing.
9. Insert/glue 10g weight just behind bulkhead **B**, making sure that hole for front wheel shaft is kept free (Glue: preferably epoxy, as wood glue will have difficulty in drying in enclosed space).
10. Part **1A** (air intake, just below propeller): Cut out, round/glue to a truncated cone. Cut out green area, glue on position marked on **1**. Glue unit **1** onto part **2**.
11. Insert exhaust **1B** in position marked.

### Main Wing

12. Cut out central part of main wing **7**, fold along leading edge, and tab.
13. Cut out the 5 wing struts **8** (3x thickness), and glue in place on the bottom portion of the wing (NB: the two outer struts, must be at 85° to the vertical, to take into account the bent wing tips - use the angle decal **8B**).
14. Close/glue the wing.

### Wing Tips

15. Cut out wing tips **9L**, **9R** and 2 struts **8**. Assemble as for Main Wing.
16. Glue ONLY ONE of the tips to the end of the Main Wing. If the tip angles are correct, when the total wing unit is laid on a flat surface, the wing tips should be about 2 cm above the surface.
17. Cut out green areas on fuselage parts **3** and **4**, cut off green areas on BH's **D** and **E** (to make way for wing) insert wing and glue in place (if necessary, enlarge the cut-outs). Then add the other wing tip.

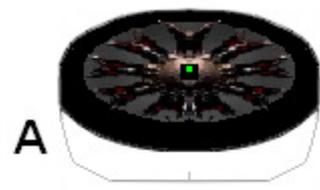
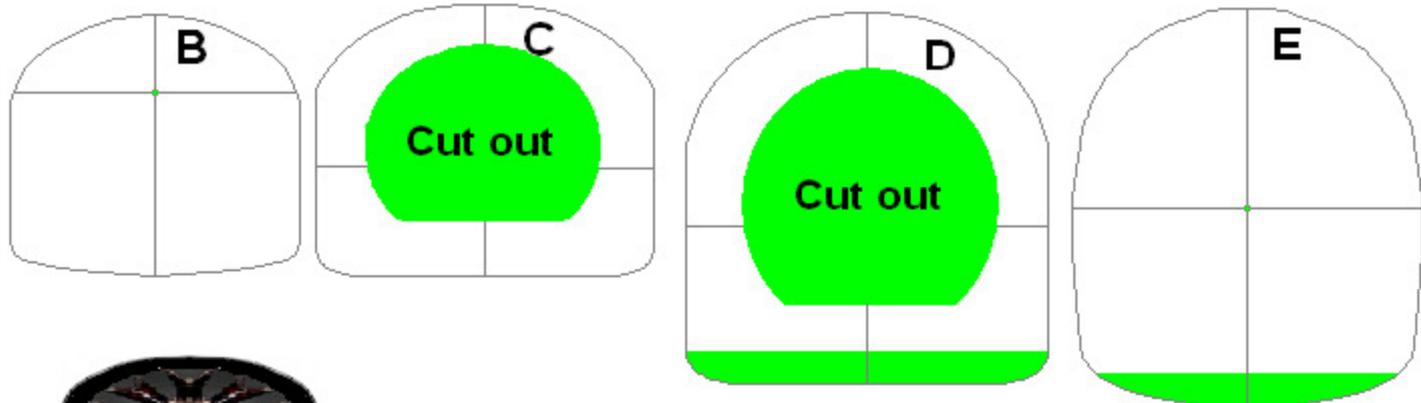
### Tailplane

18. Cut out **12**, close and glue. Cut out green portions and slits of **5**.
19. Glue wing **12** in place, followed by fin **10**.
20. Fold back tabs of **11A**, and glue on **11B**. Attach around base of Fin **10** where it joins wing **12**.

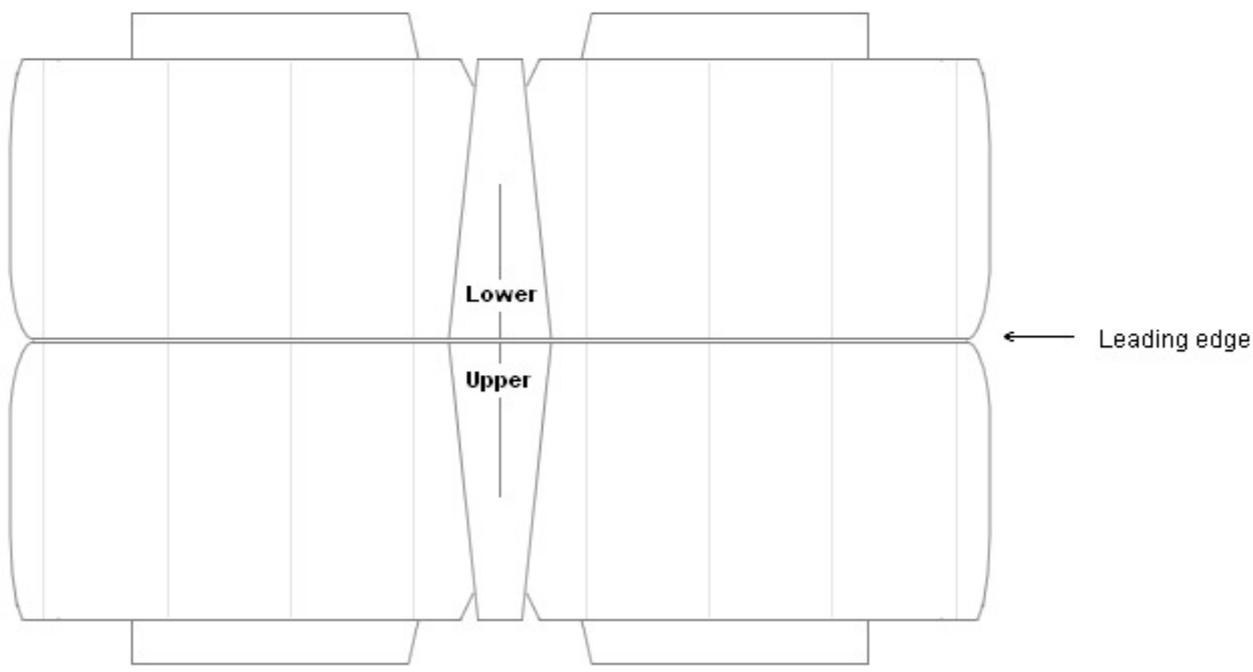
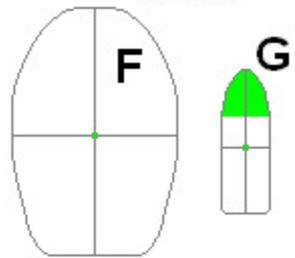
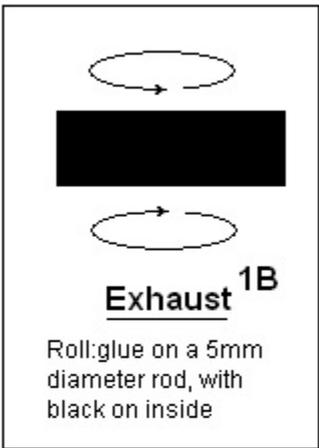
### Undercarriage Cut out, and roll/glue the 3 wheels.

#### FRONT:

21. Assemble parts **14** and **15**, glue on the shaft **13F**, carefully noting the positions and angles in the diagram above. The bottom of part **13F**, using curved nails scissors, should be formed to make a perfect fit onto **14/15**. Cut out the green area on part **1**, insert the unit **13/14/15** as far as it will go with the correct angle off 90° (see diagram). Previously, the top of shaft **13F** has had a drop of glue added, so that the whole shaft is glued in 2 places - at the top, and where it exits the underside of the fuselage (part **1**). Glue one of the wheels inside the unit **14/15**.
22. For the 2 main undercarriage units, likewise. Insert/glue in place under the wings after cutting out the 2 green areas for the undercarriage.



**Make all bulkheads 3x thick**

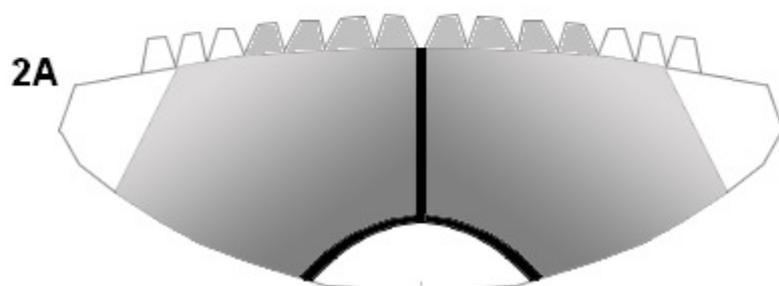
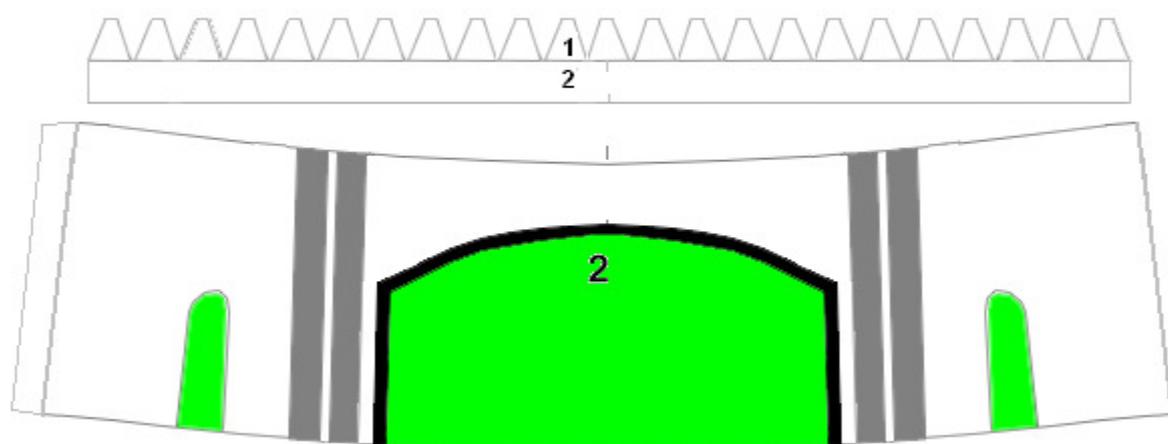
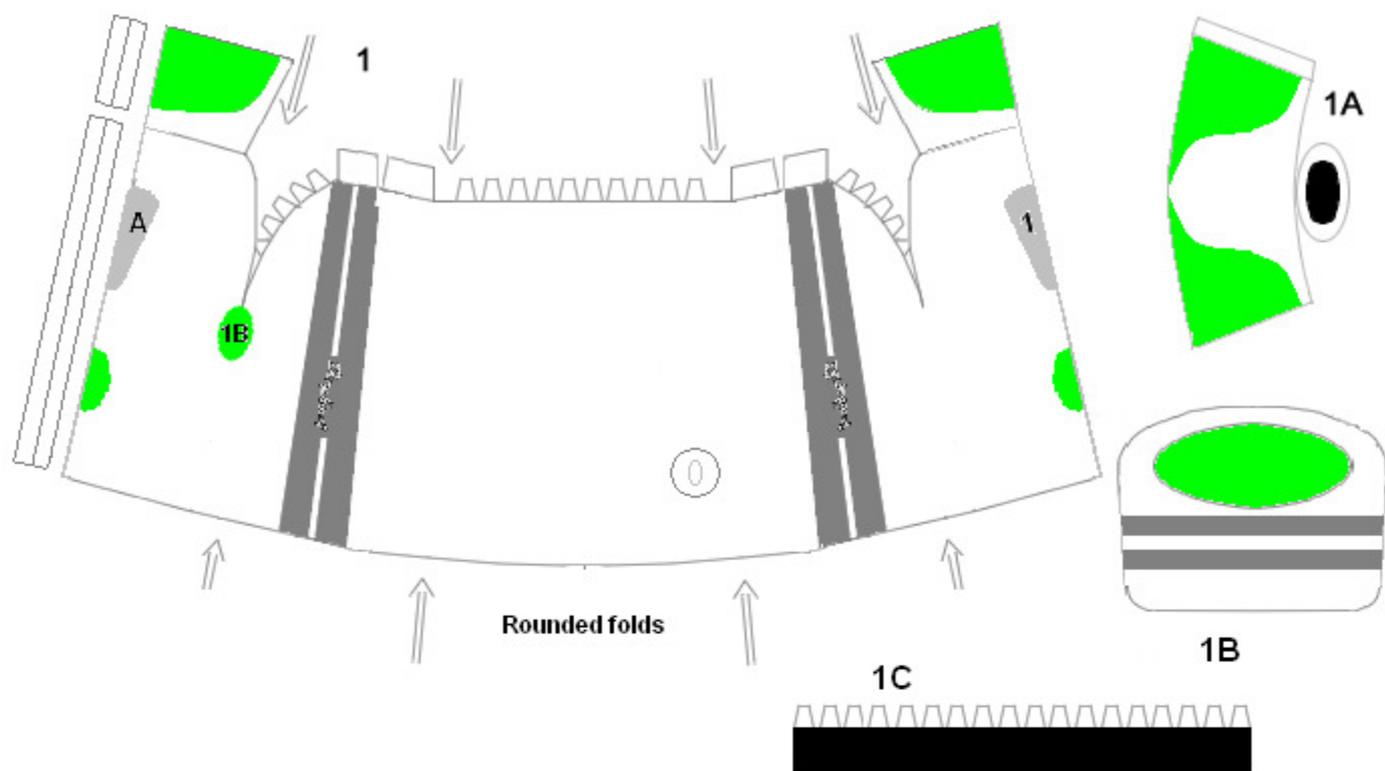


**Sheet 1**

Robin Dauphin 4

**Rear Wing 12**

Note: width of lower face is slightly less than that of upper, to give a slight dihedral.



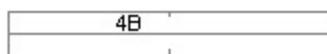
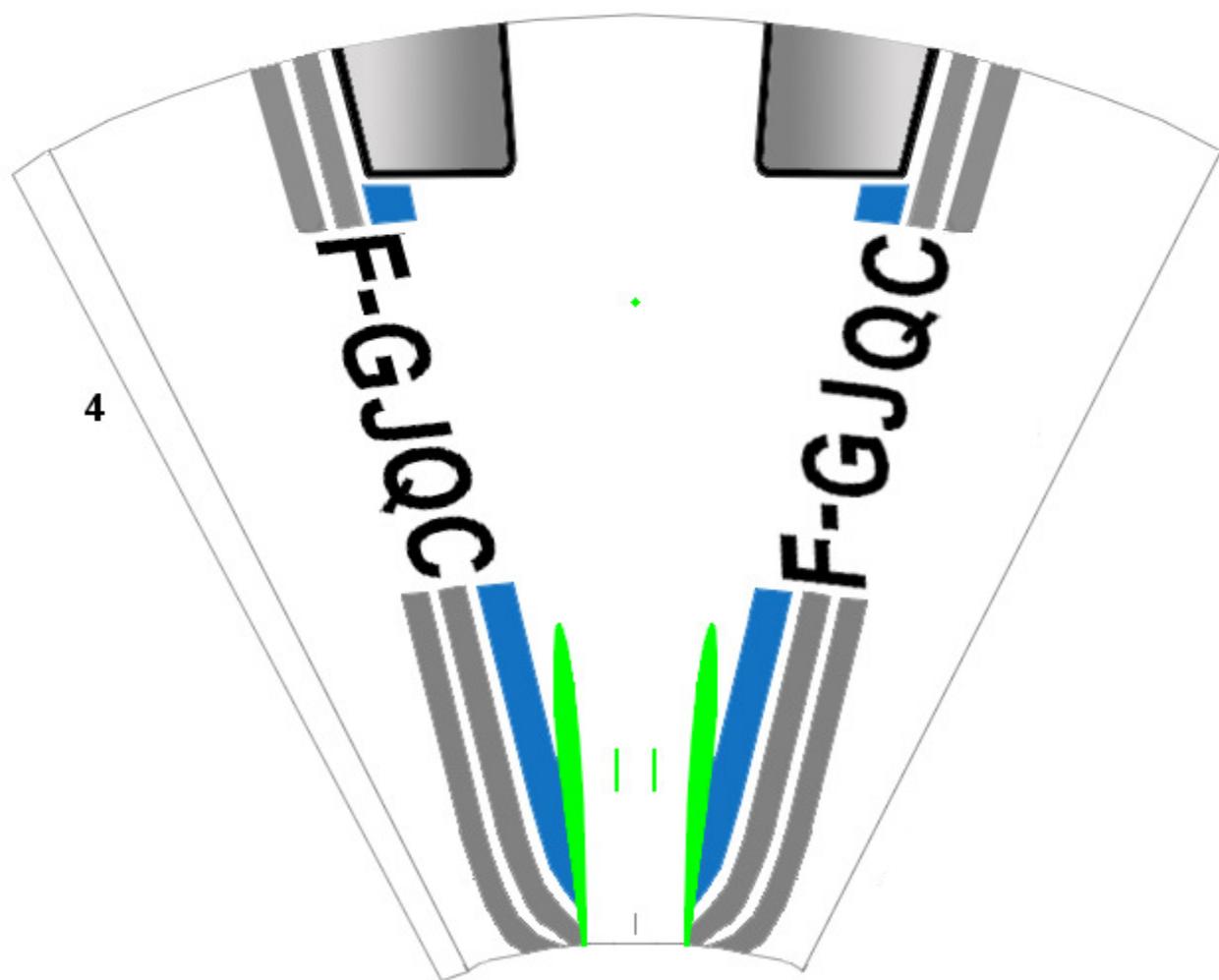
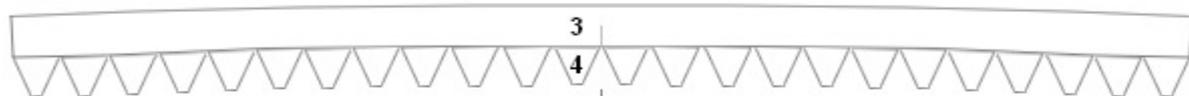
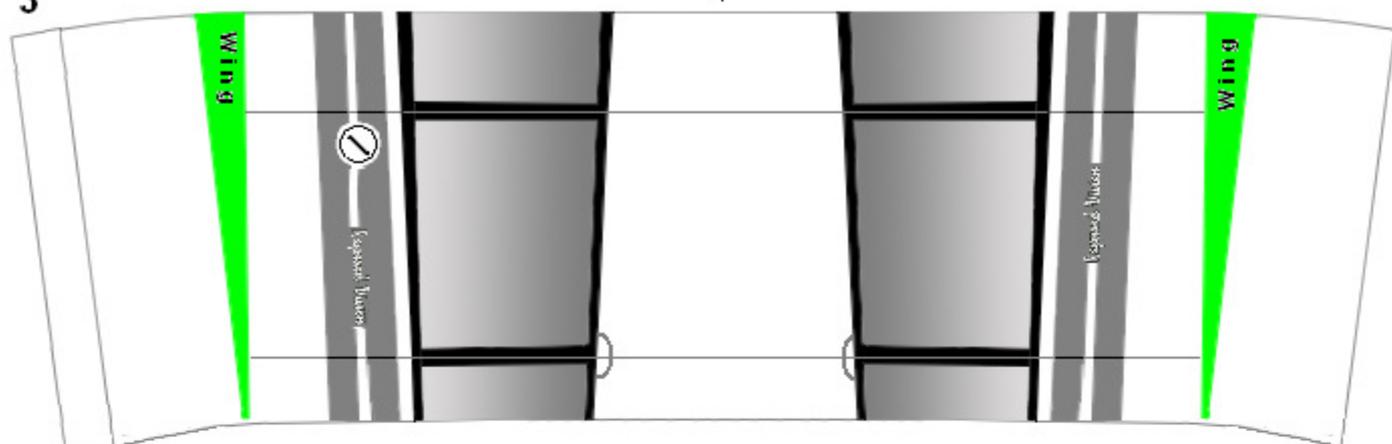
## Sheet 2

Robin Dauphin 4

@ Bob Schedler 2011



3



4B

**Sheet 3**

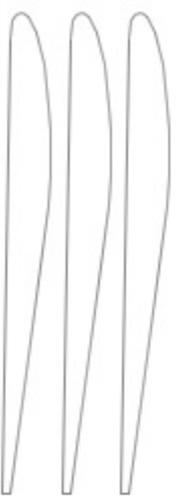
Robin Dauphin 4

@ Bob Schedler 2011

BOTTOM RIGHT

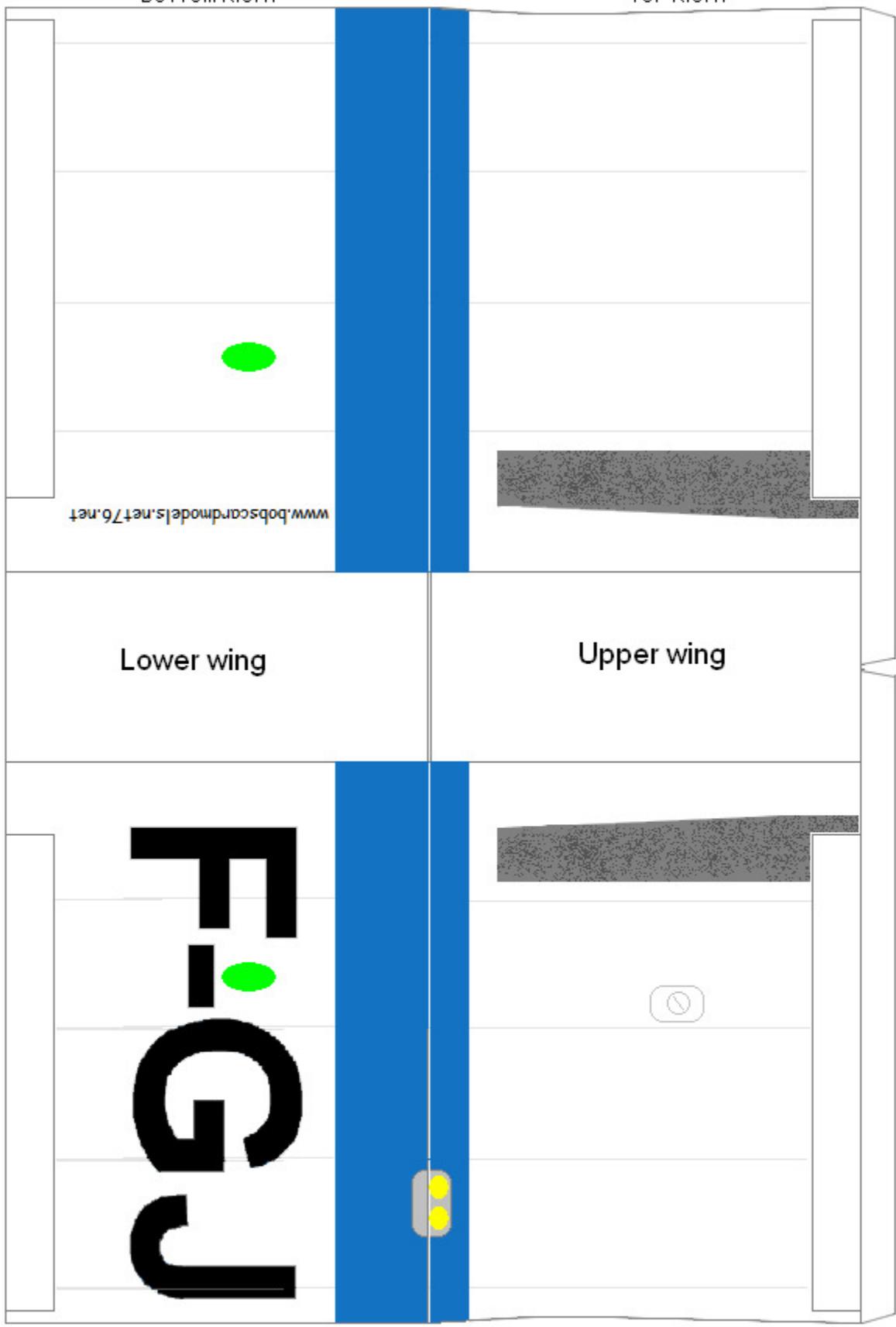
TOP RIGHT

\*  
85°



8

Central Wing Struts  
Make 3x thick



Lower wing

Upper wing

Position of wing struts

BOTTOM LEFT

TOP LEFT

\*  
85°

Leading Edge

Central Wing<sup>7</sup>

**Sheet 4**

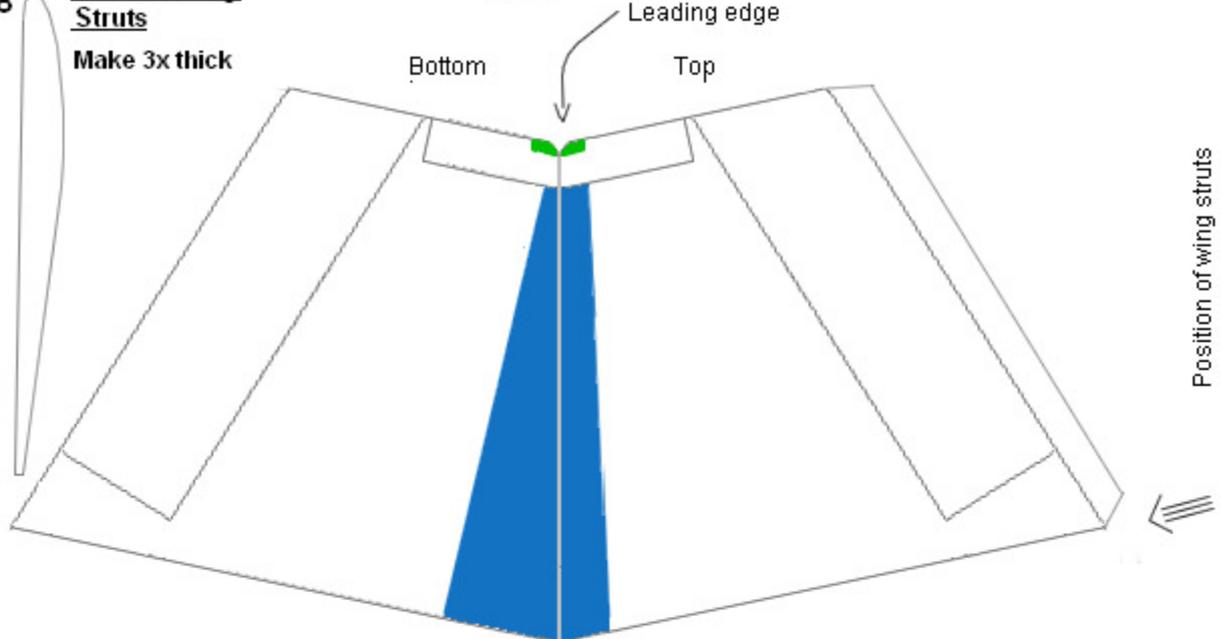
Robin Dauphin 4

@ Bob Schedler 2011



**Central Wing Struts**  
Make 3x thick

**RIGHT 9R**

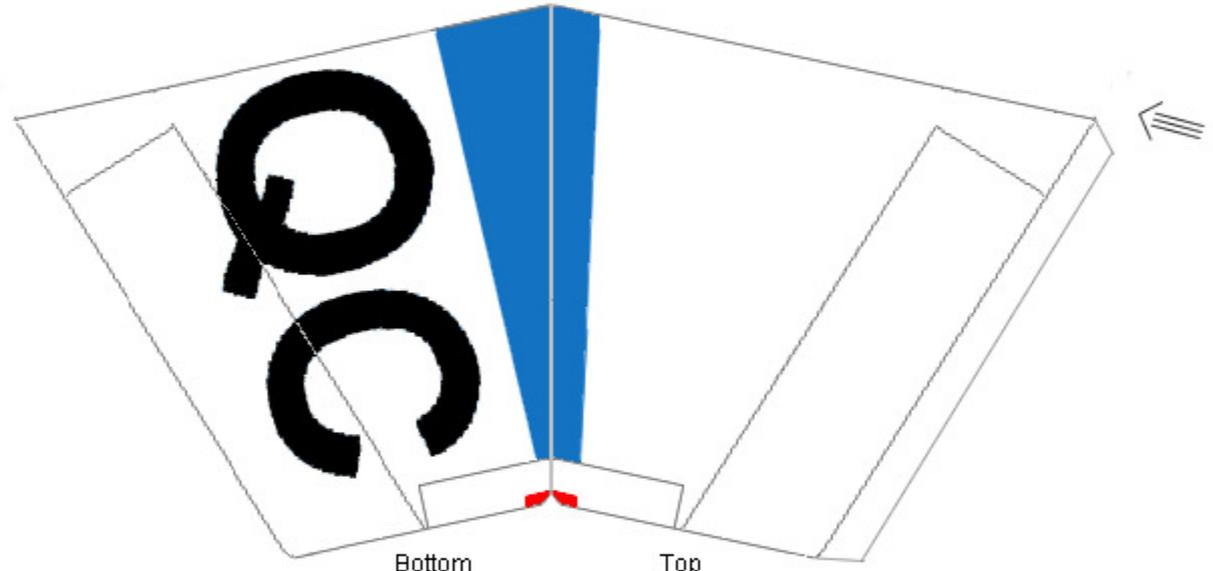


Leading edge

Bottom

Top

Position of wing struts



**LEFT 9L**

**Wing Tips**

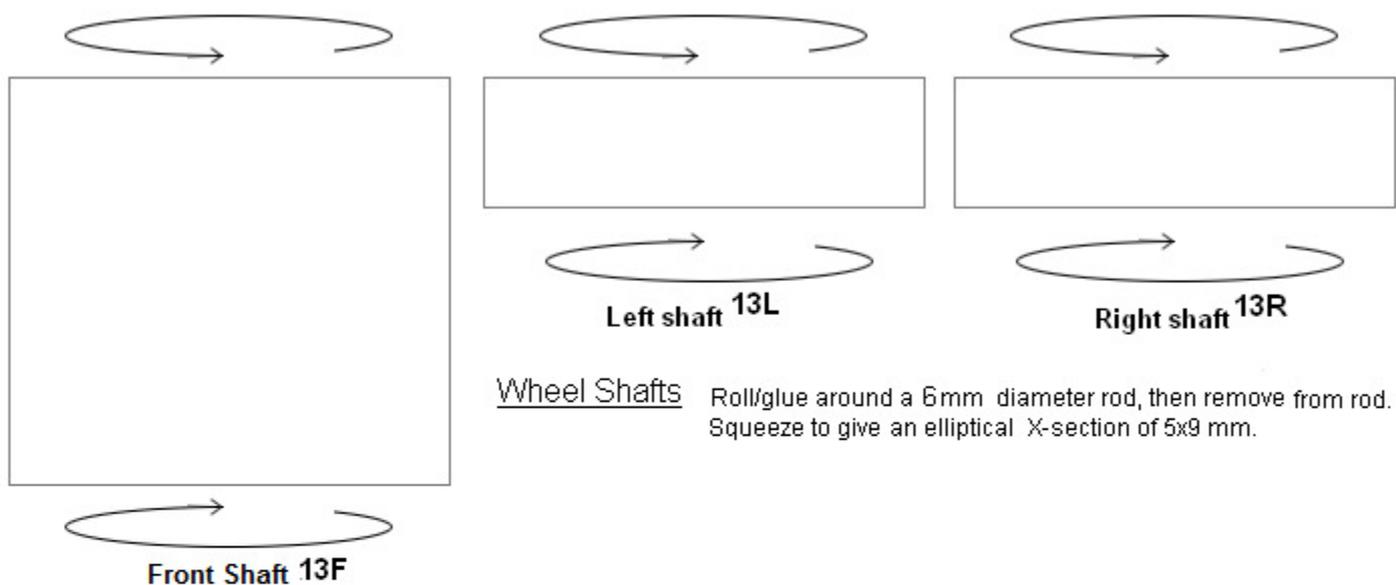
Bottom

Top

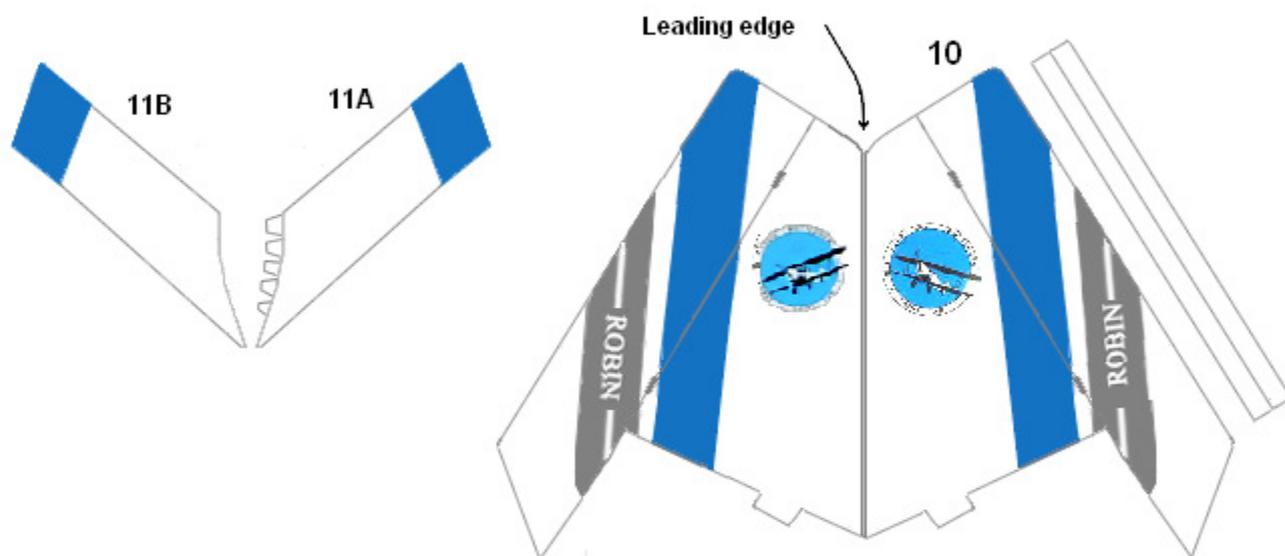
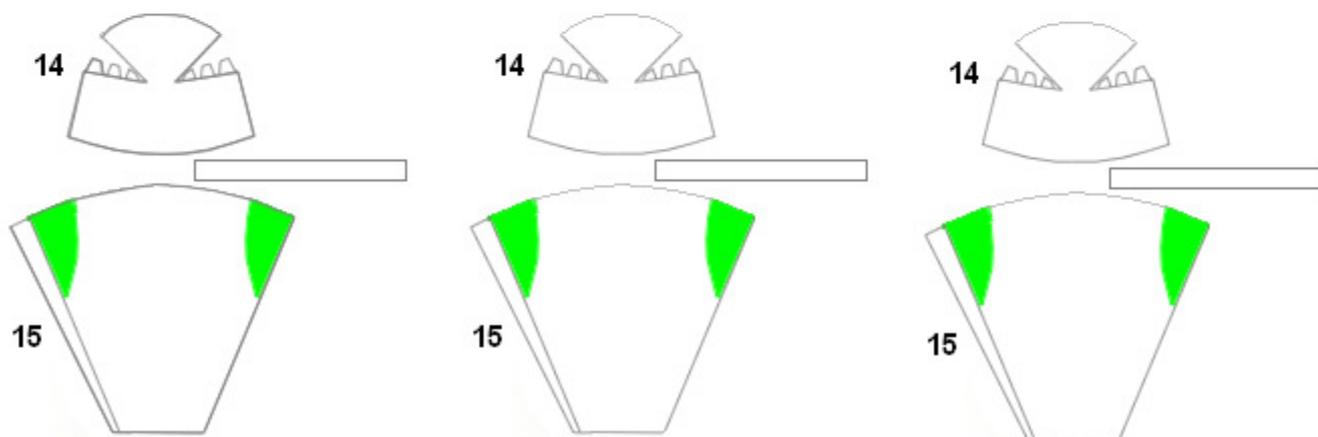
**Sheet 5**

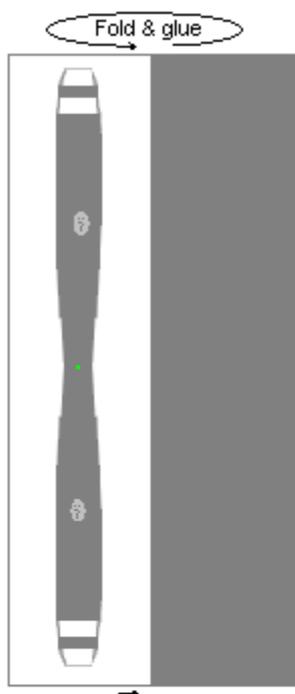
Robin Dauphin 4

@ Bob Schedler 2011



Wheel Shafts Roll/glue around a 6mm diameter rod, then remove from rod. Squeeze to give an elliptical X-section of 5x9 mm.

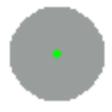




Propeller



Nose Cone



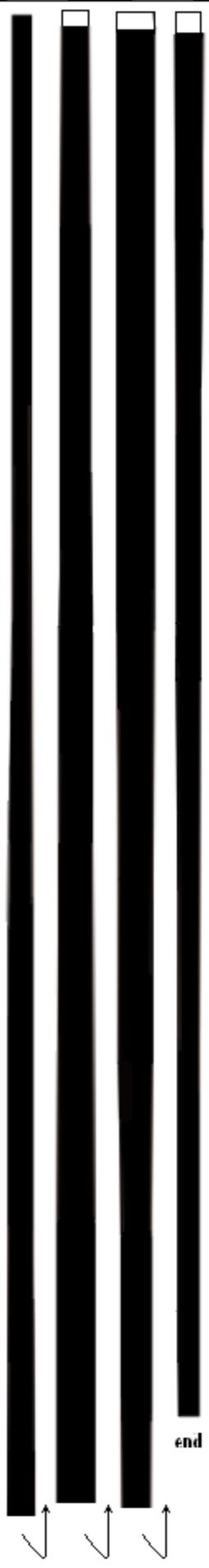
Back of Nose Cone



Hub Caps



Front Wheel



Main Wheel



Main Wheel

## Flashing

Front wing: Tips to main  
Top

Leading edge  
↓

Bottom



Left

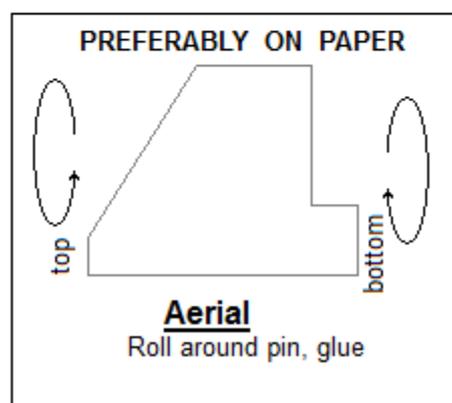
Right

Front wing: wing to fuselage



Left

Right



**Print on Paper!**

