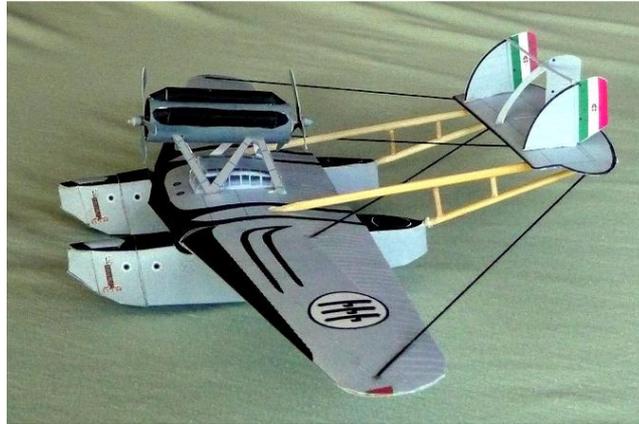


# Bob's Card Models

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



## Savoia-Marchetti S.55 1:72

The Savoia-Marchetti S.55 was a double-hulled flying boat produced in Italy beginning in 1924. Shortly after its introduction it began setting records for speed, payload, altitude and range.

The S.55 featured many innovative design features. All the passengers or cargo were placed in the twin hulls, but the pilot and crew captained the plane from a cockpit the thicker section of the wing between the two hulls. The S.55 had two inline counter-rotating propellers achieved by mounting the twin engines back to back. The engines were canted sharply at an upward angle. Two wire-braced booms connected the triple-finned tail structure to the twin hulls and wing.

Many variants were manufactured.

### Acknowledgements

Many thanks to Bryan Ribbans of [www.seawings.co.uk](http://www.seawings.co.uk) for the numerous sketches, photos and diagrams, and to Wikipedia for the specifications.

### General characteristics (Wikipedia)

Crew	5-6
Length	16.75 m
Wingspan	24.00 m
Height	5.00 m
Wing area	93.0 m <sup>2</sup>
Empty	5.750 kg
Loaded, max. takeoff	8.260 kg
Powerplant	2 x Isotta-Fraschini Asso 750V 656 kW (880 hp) each

### Performance

Max speed	279 km/h
Range	3.500 km
Service ceiling	5.000 m

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## **Building Instructions**

Print all sheets on card between 160 and 230g per square metre, except Instructions and Sheet 6 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!**

Tabs are marked with a red dot .....

Dotted , should be folded upwards (valley)

Full line, should be folded downwards (mountain)

Grey, not folded.

### **Fuselage**

- 1 Cut out parts **1** to **5**, as per instructions on Sheet 1 (NOTE: there are TWO hulls) Glue/close parts **3**, **4**, and **5**. Glue **1** onto **3**. Finally, glue on **2**.  
TIP: Cut the parts to oversize, including the arrows showing the position of the rounded folds, folds, then cut the part to size.
- 2 In the front of the fuselage, at least 8g counterweight should be glued into EACH hull.

### **Wings**

- 3 Cut out both wings **6L** and **6R**, fold and glue.
- 4 Cut out the 2 strips **8L** and **8R**, which join the wing tips to the central portion. Fold each in half, then insert/glue halfway in each wing tip. Insert a strut **A** into each wing, more or less flush with the ends.
- 5 Cut out and fold central wing portion, **7**. Glue on the strut **B**, so that its rear end line up with the slits in the tab (between the tabs marked with an **x**), and glue/close. **IMPORTANT NOTE: Glue on upside down, as the upper side is that with the cockpit position.**
- 6 Join/glue the central part to the wing tips.
- 7 Cut out, fold, glue the cockpit **9** onto the position marked..

### **Tailplane**

- 8 Cut out and assemble parts **10 – 13**. TIP: Before closing/gluing rear wing **10**, push the tabs of the 3 fins through the slits in the wing, and glue, THEN close/glue the rear wing.
- 9 Fix the Tailplane unit to the main wing and rear of hull using 2-3mm diameter barbecue sticks ..... cut 2 to a length of 13cm each, and 2 to length of 9cm each. The 2 9cm sticks are fixed in the top rear of each hull, the 2 13cm sticks into the green-marked small rings on the top of the wings. Glue in position so that the upper 2 sticks are parallel to the surface, when the plane is set on a table. Glue the tailplane on the rear end of the 2 stick pairs. Sheet 6 shows the configuration of the barbecue sticks and tooth picks.
- 10 Join the top of the fins **11**, **12**, **13** with the connector **13A**.

### **Engine**

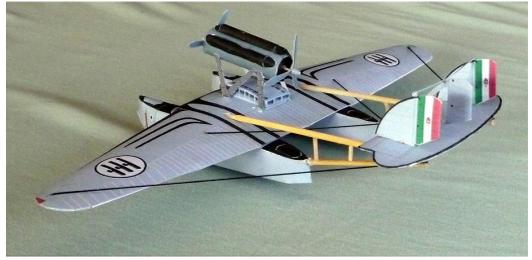
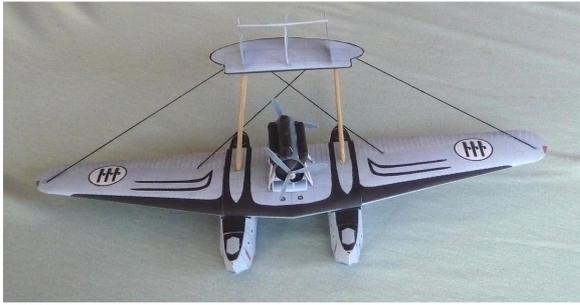
- 11 Cut out and assemble propellers **14**, nose cones **15**, engine cowling **16**.
- 12 Cut out the 2 Engine support strut units **17**, fit UNGLUED in their respective positions left and right of the cockpit.
- 13 Cut out and assemble the 3 Cylinder Head Cowlings **18**, and glue in position on the engine cowling **16**.
- 14 Glue the whole engine unit onto the support strut units **17**. Glue in place on the Midwing in the green slits marked.
- 15 Cut out, glue tab, insert in each end of engine cowling, the inserts **19**.
- 16 Assemble the Propeller and Nose Cones **14** and **15**.

### **“Rigging”**

- 15 Use black elastic thread: thread through the front wings in the positions marked, and around the rear of the booms.

### **Stand**

- 16 Optional: Cut out, assemble and glue from Sheet 7.

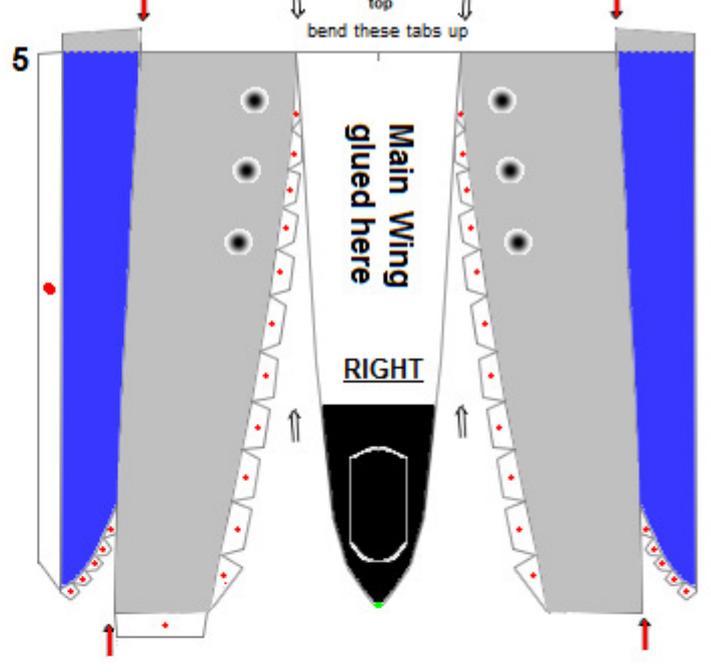
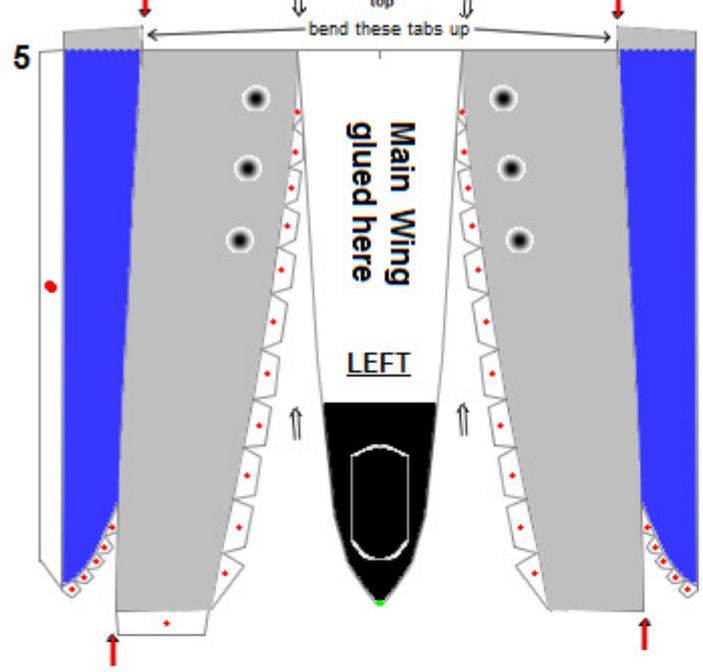
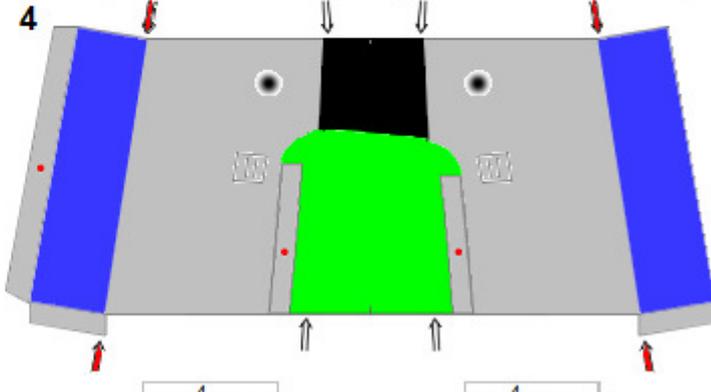
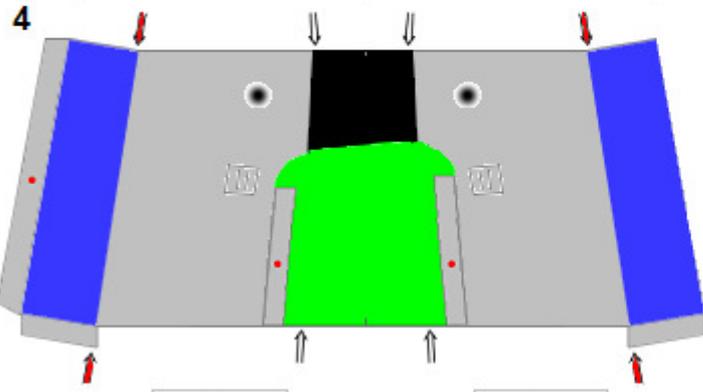
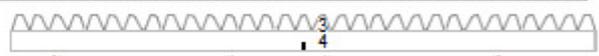
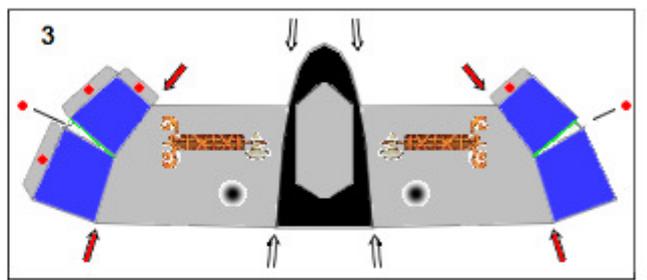
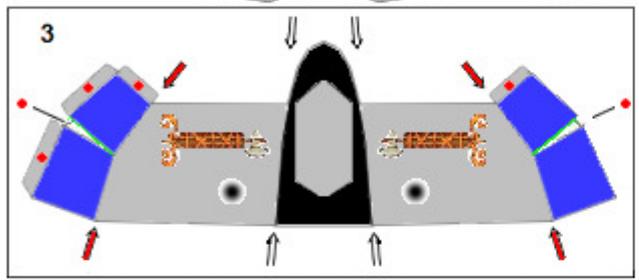
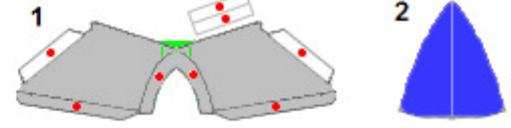
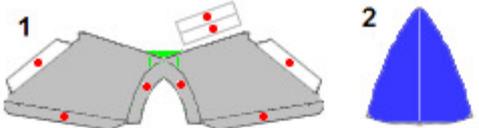


**LEFT**

After gluing 1 to 2, cut out green areas

**RIGHT**

After gluing 1 to 2, cut out green areas



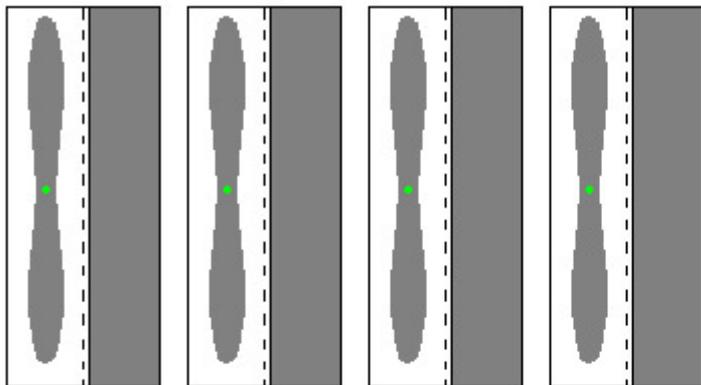
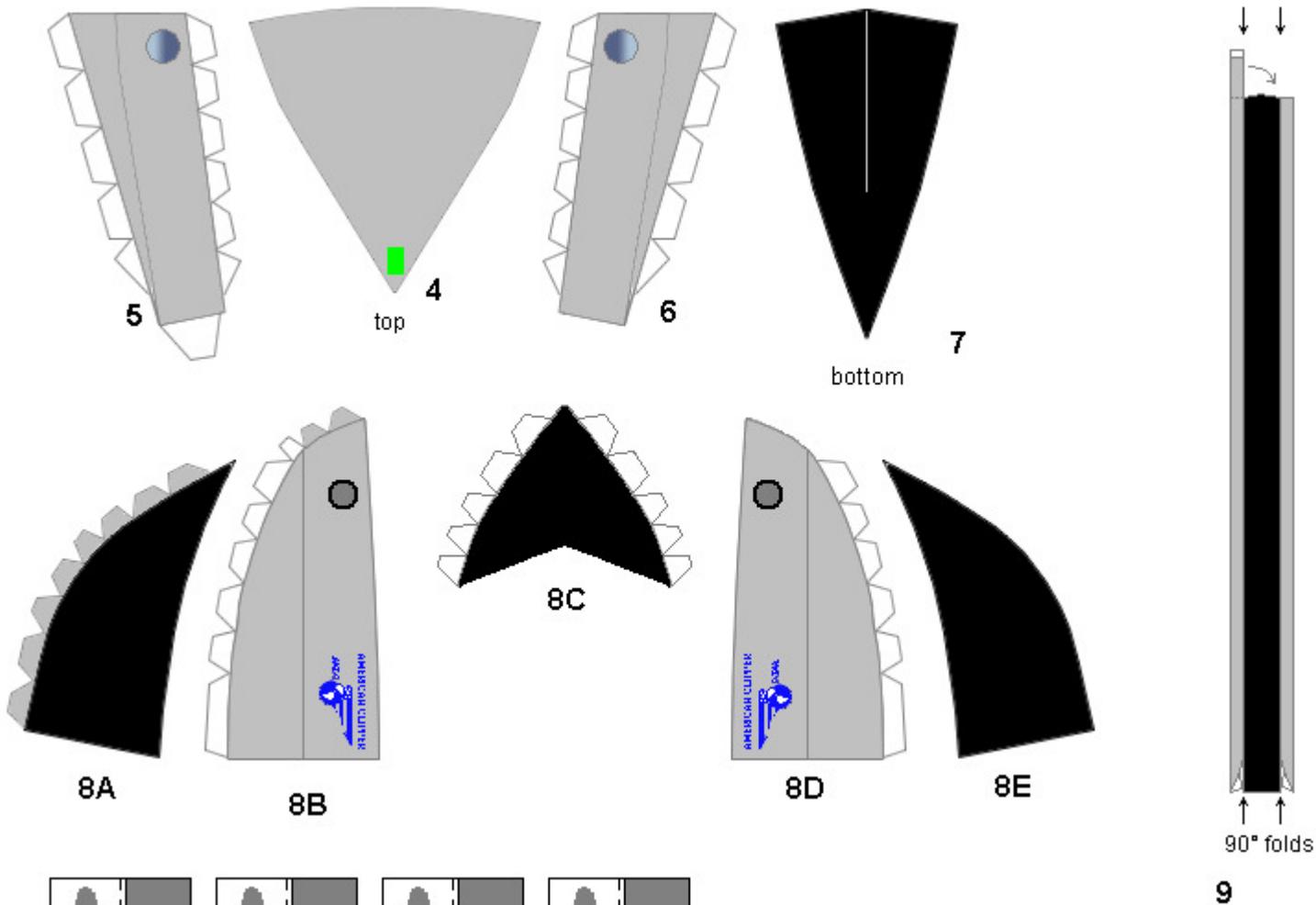
**Folds**

↘ Rounded (diameter ± 3mm)

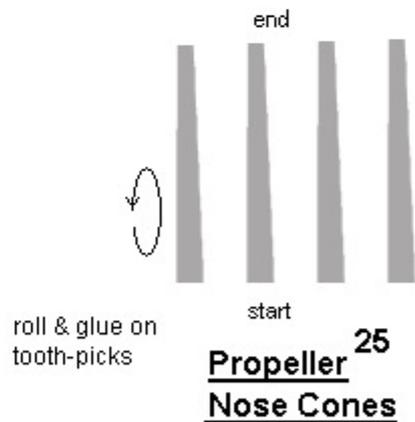
↘ Sharp

**Sheet 1**

Savoia-Marchetti



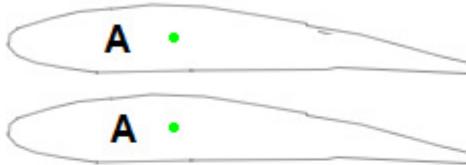
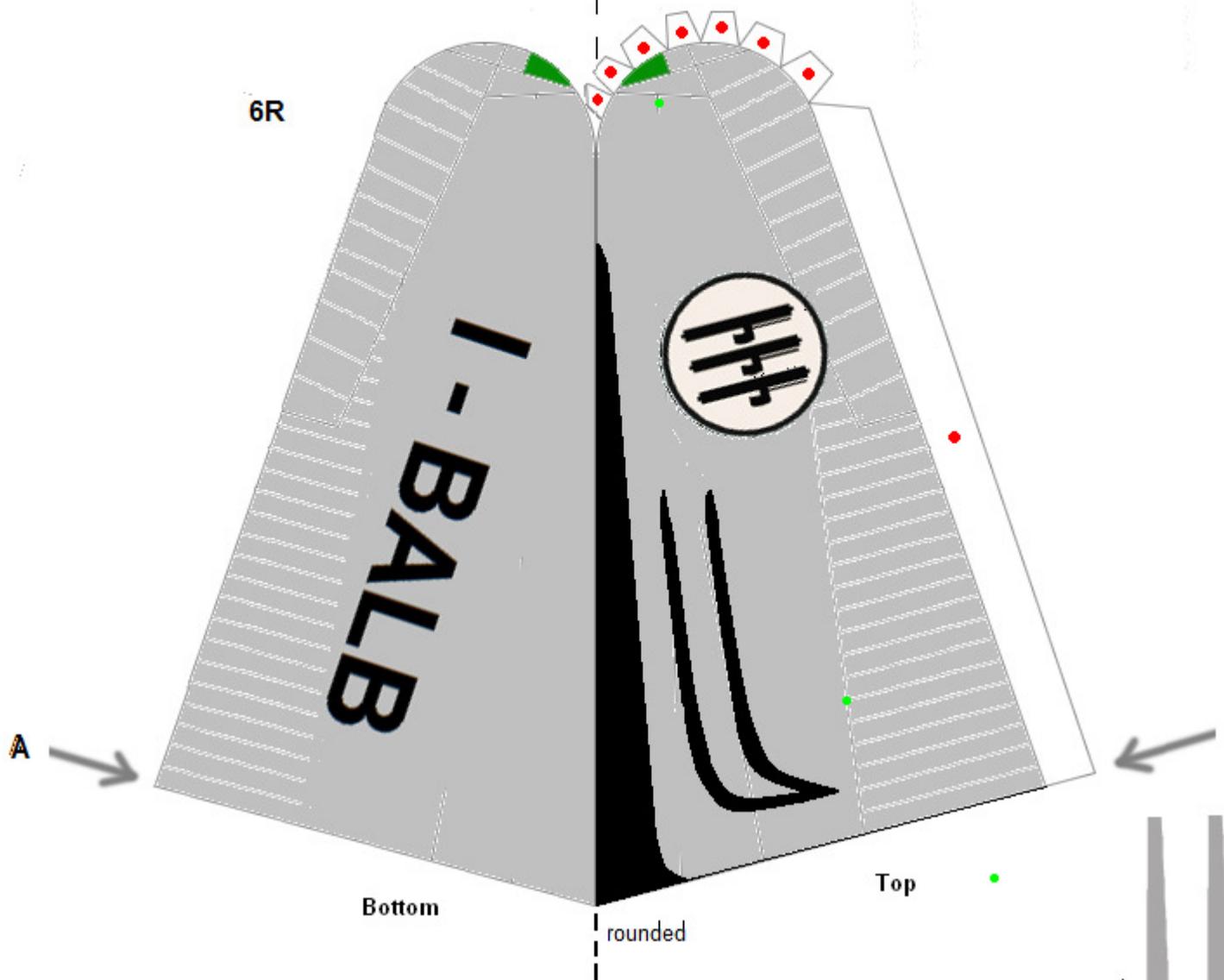
**Propellers<sup>24</sup>**



**RIGHT**

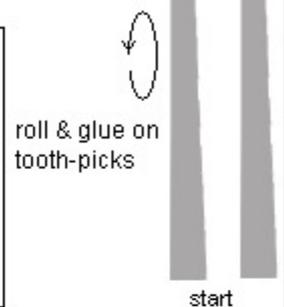
Leading edge,  
rounded

6R

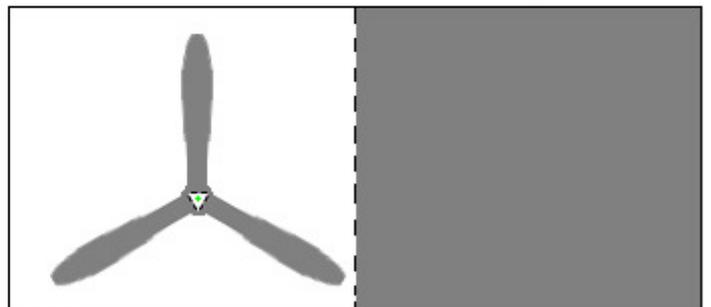


**Make struts 3x thick**

Pierce the centres of struts A, to facilitate insertion in the wings with a tooth-pick.



**Propeller 15  
Nose Cones**

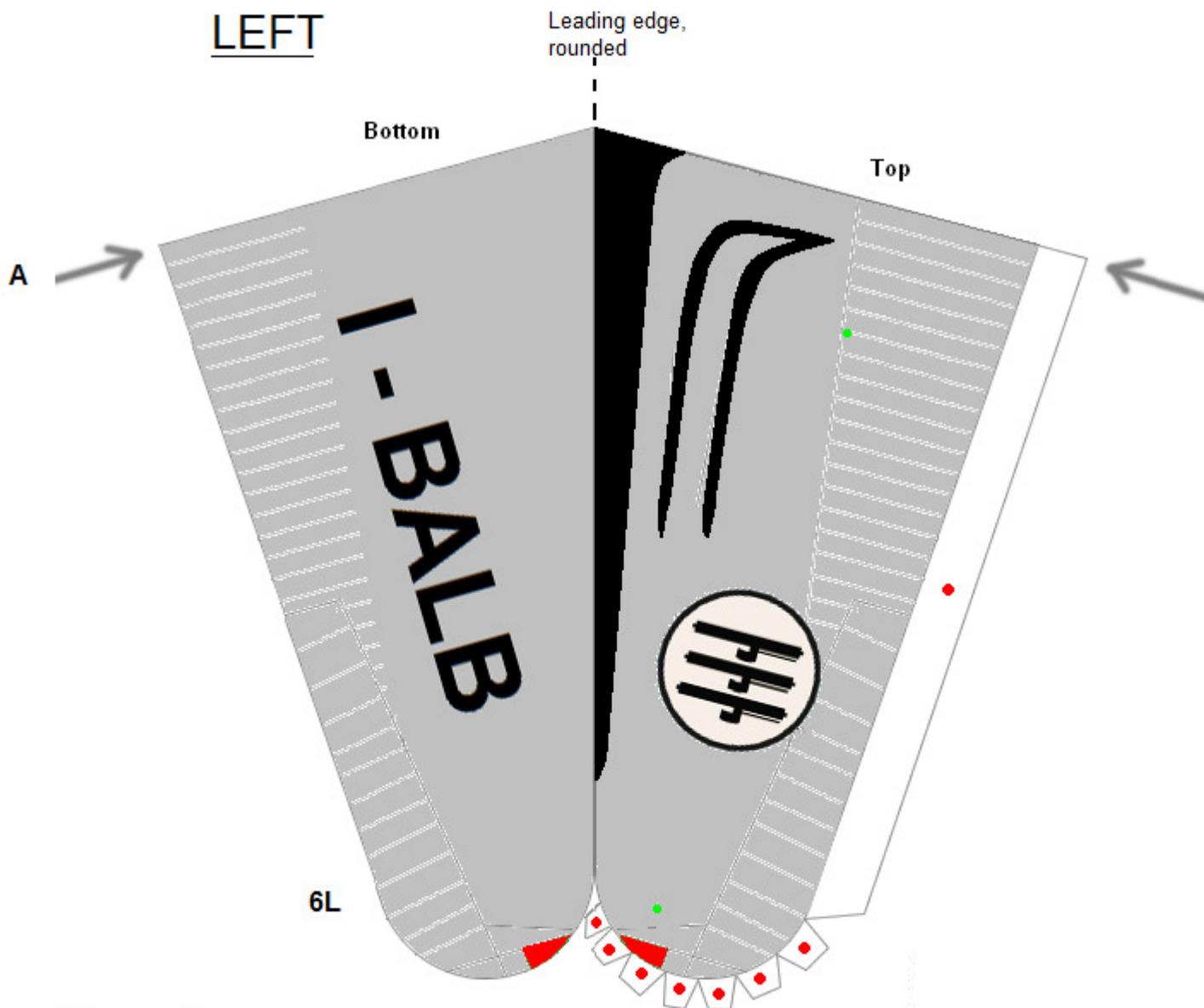
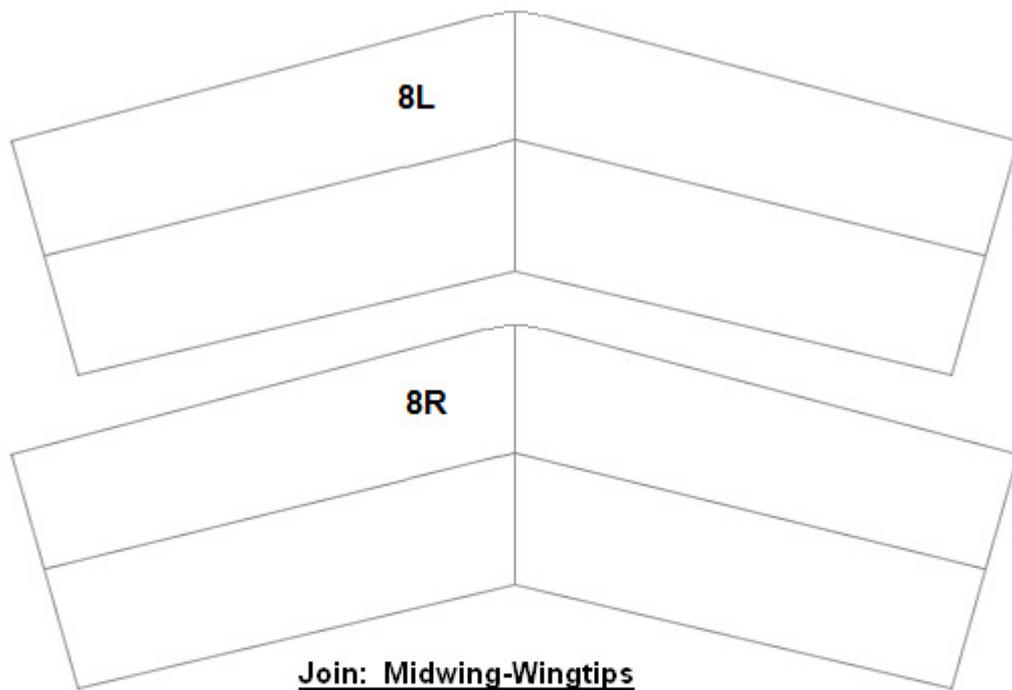


**Propellers 14**

**Sheet 2**

Savoia-Marchetti

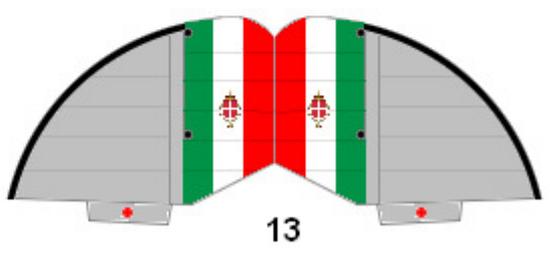
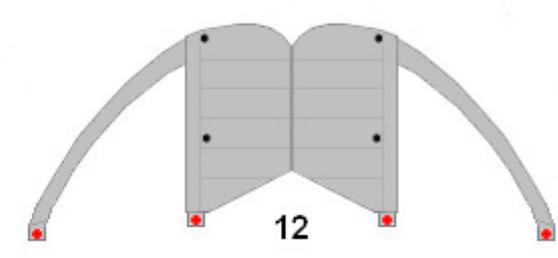
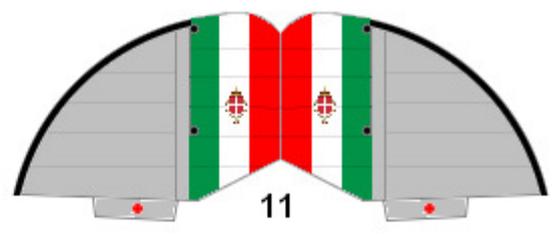
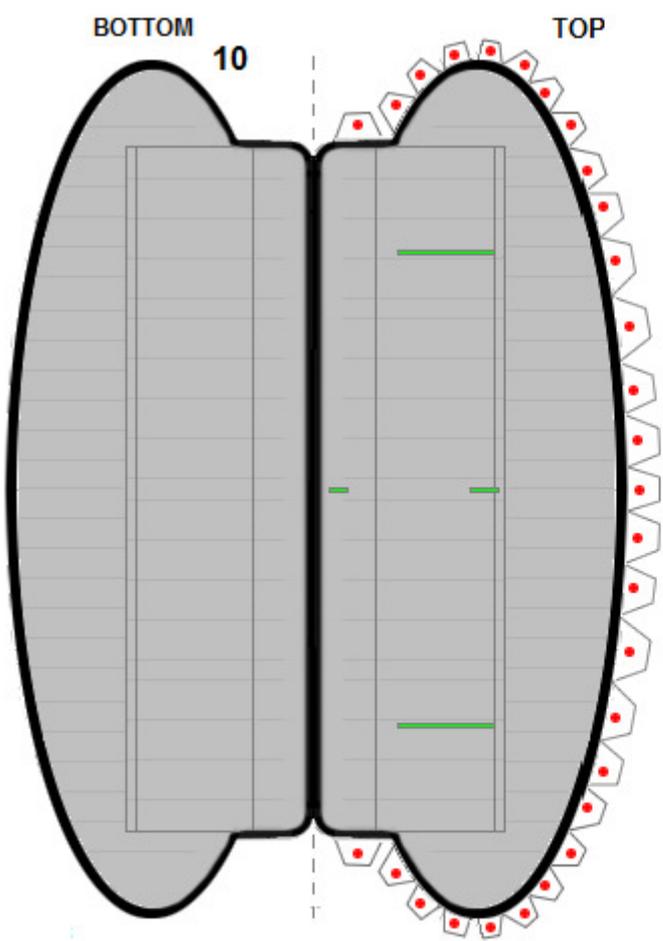
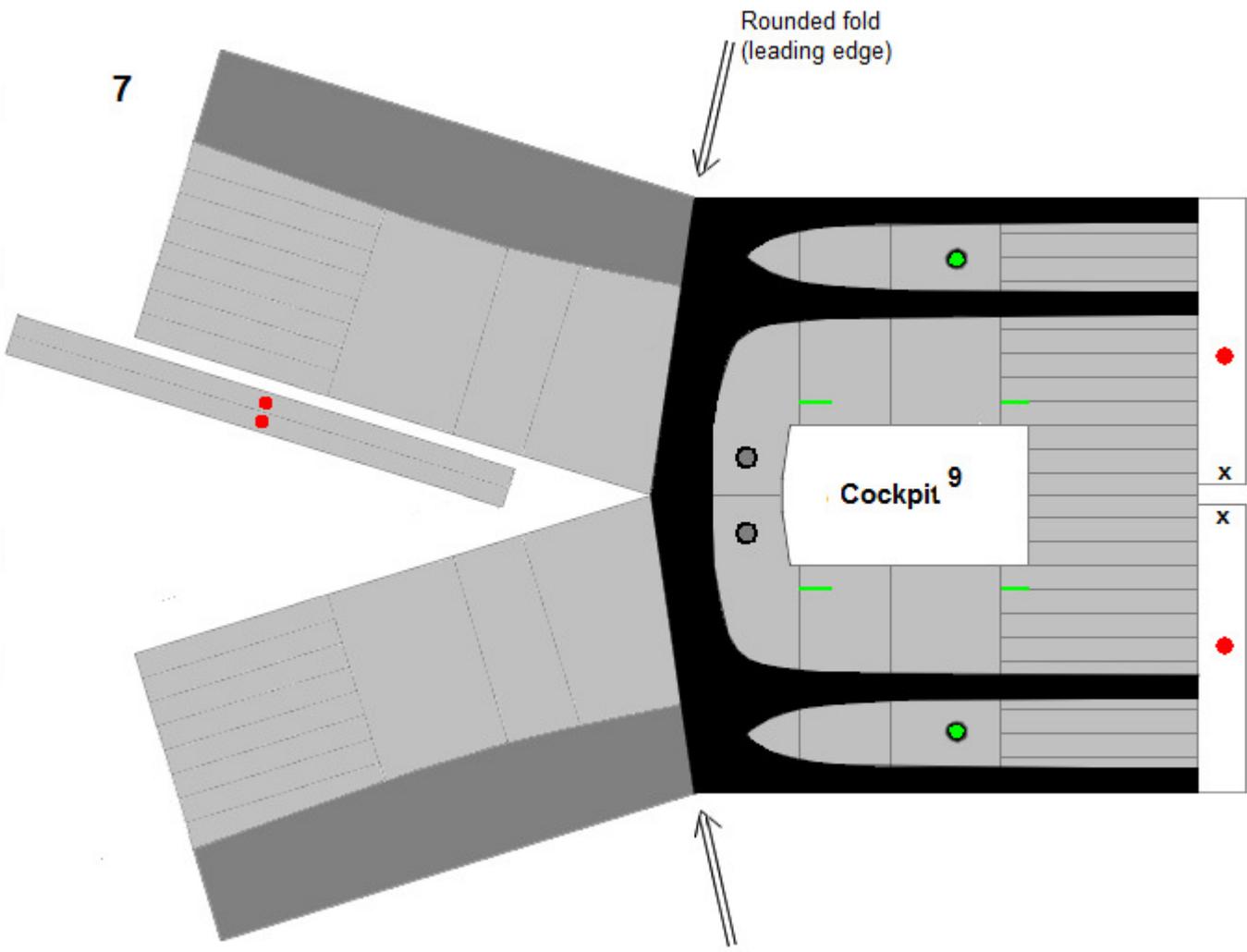
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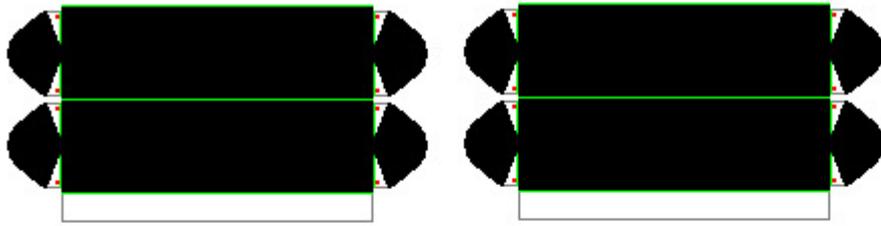
**Sheet 3**

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Fins 11-12-13  
Connector



**Cylinder Head Cowlings 18**

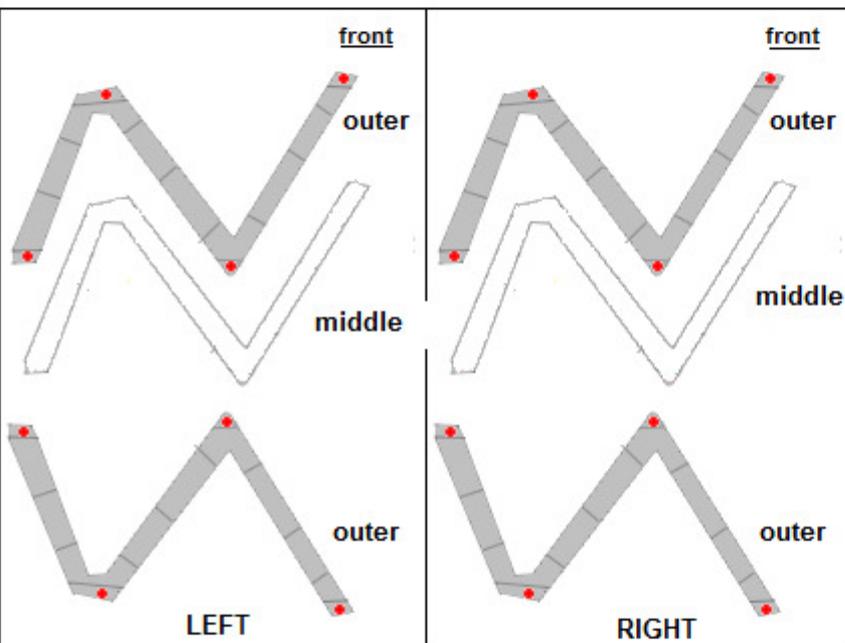
Cut out each, roll/glue. When dry, cut each lengthwise along the 2 green lines, forming 4 parts (discard one). Glue in 3 profiles into each part. Glue whole unit onto the engine cowling 16.

**Engine Inserts<sup>19</sup>**



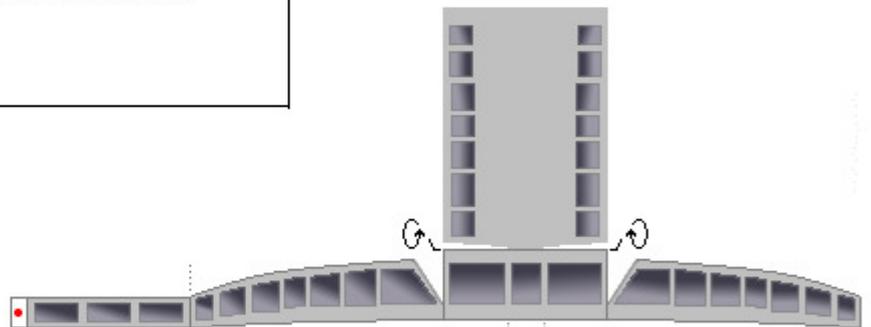
Make 2x thick

**Profiles 18B**



**2 Engine Support Struts 17**

Make 3x thick, by gluing together each of the 3 parts.



**Cockpit<sup>9</sup>**

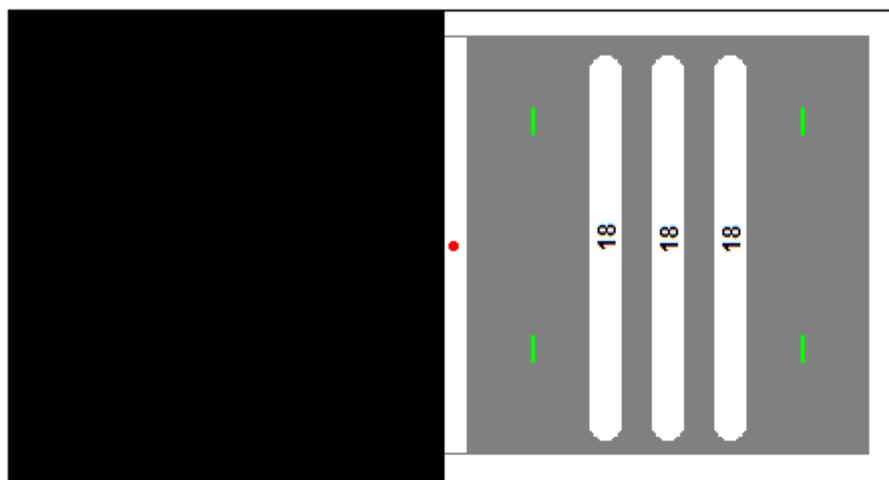


**Sheet 5**

Savoia-Marchetti



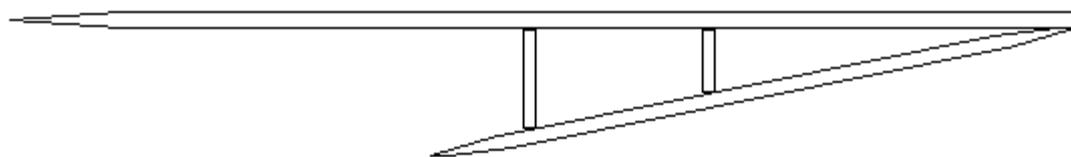
front



rear

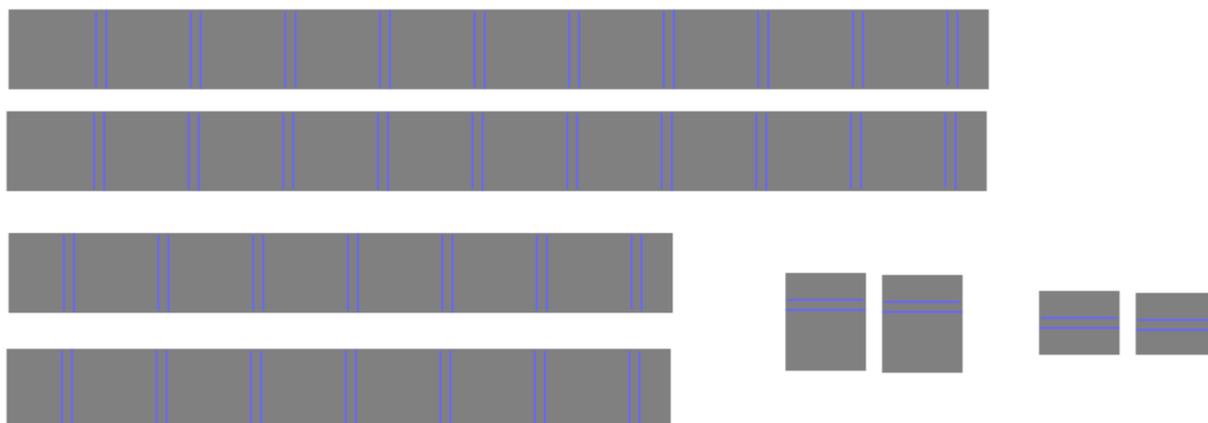
### Engine Cowling 16

Cut out, roll close/glue with black on inside



Plan of the 2 booms, constructed from barbecue and cocktail sticks.

If so desired, for authenticity, each of the parts can be rolled/glued with the grey-painted paper below, before assembly.

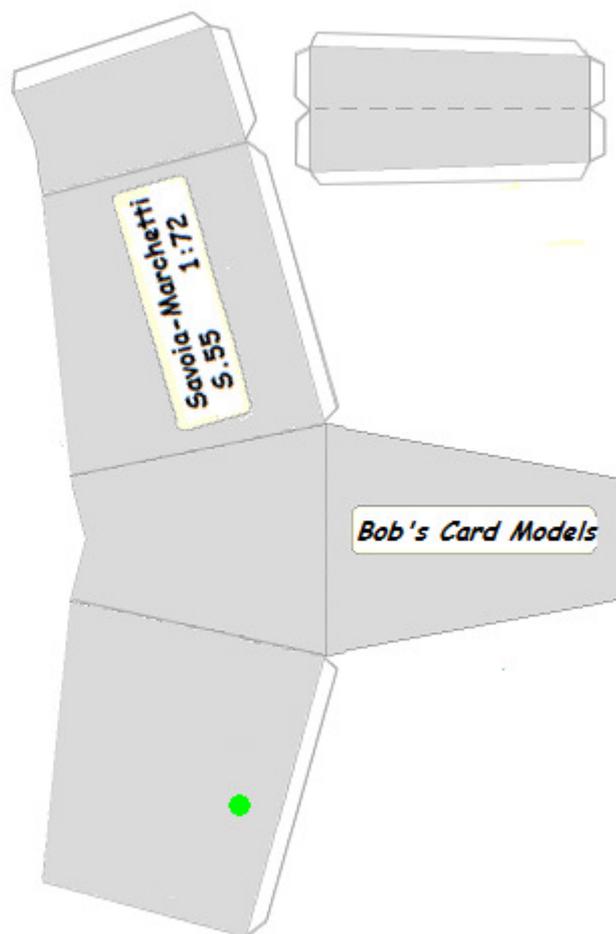
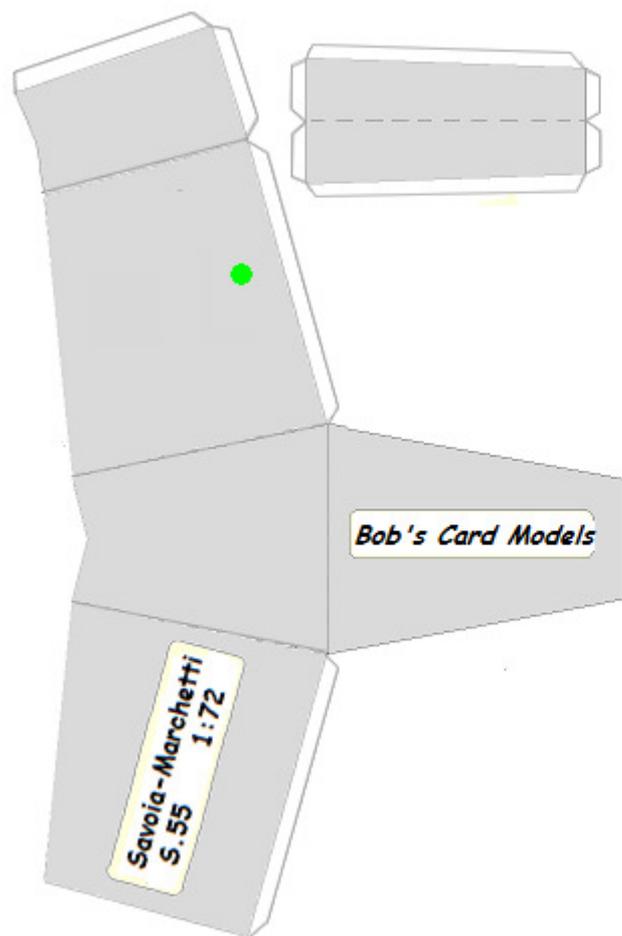


**PRINT ON PAPER !**

**Sheet 6**

Savoia-Marchetti

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Roll around ca. 3mm rod.  
Insert and glue ends in holes  
cut out.