

How to Build A Universal One Wheeler

A Gas Model That Will be a Consistent Winner in Any Contest. It Recently Won a Contest at Miller Field, Staten Island, N.Y., by Making a Flight of Seven Minutes With a Thirty Second Engine Run. It Has a Very Flat Glide



Unusual in design but a plane that climbs fast and has great soaring qualities. A wing section of the latest design is used

SOMETHING new in gas model aviation—a one-wheeler gas model that will accommodate most any motor on the market. To date the ship has been flown with a Trojan, Husky, Cyclone, Gwinn-Aero and Brown "B," "C," and "D"; giving most gratifying results with all of them. The ship can be flown in both the large and small N.A.A. events at contests. On occasions it has flown over five minutes without covering more than 200 feet distance from the take-off spot. Its outstanding flight characteristic is the extreme stability. Due to a low center of gravity and a low center of lateral area, the climb is a tight, vertical spiral. The glide is very flat and slow due to the high lift, stable airfoil. A great deal of airfoils were tested on this ship till the present airfoil was chosen. The ship rides thermals with remarkable facility as has been proven at various times. An associate model builder who constructed the same job, and used a Husky for power, attained flights of over eight minutes. The ship weighed $1\frac{1}{2}$ pounds at the time. If a small motor is used, it is recommended that the builder use lighter wood which will cut down on the wing loading.

Construction Fuselage

The fuselage is built of $\frac{3}{16}$ " square balsa strips. From the nose back to section X-X the fuselage has an oblong cross-section, and that part of the body is built in the orthodox manner. While building it allow the side longerons to extend the full length of the fuselage. Note that the outside motor mounts are integral with the side longerons. Make all the

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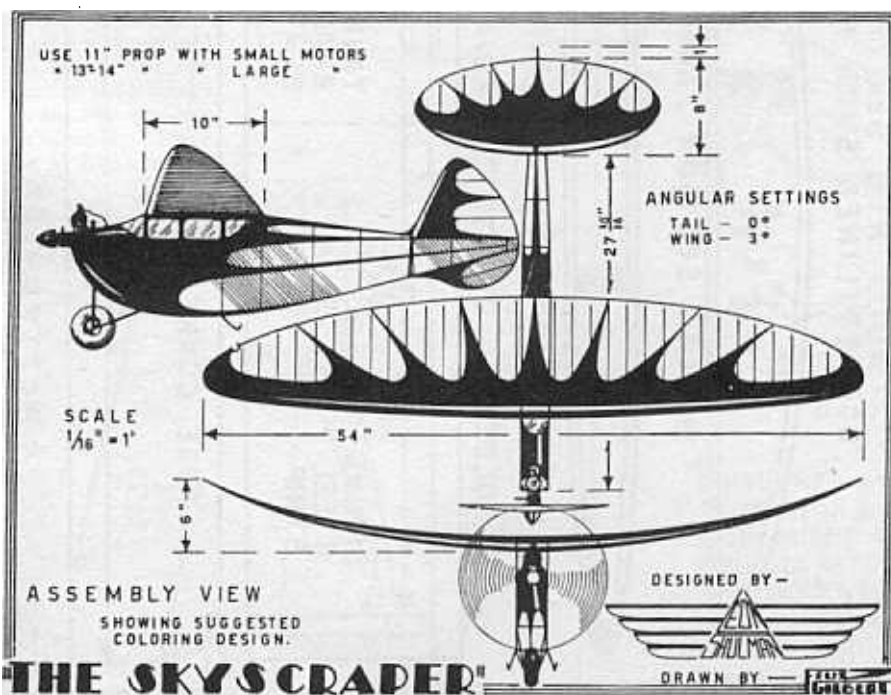


The author with the completed plane. Note the compact but efficient design

joints running into the motor mount especially accurate and strong, as this part of the body must absorb a great deal of strain. The two sides are completely joined from X-X forward before the rear of the body is built up. Then the two side longerons are joined at the back.

The front of a new top and bottom longeron is now glued in place, and then joined to the respective rear positions as indicated on the plans. The rest of the braces are now set in place; so that when finished, the sections from Y-Y to Z-Z will be diamond shaped, and from Z-Z to the back they will be triangular. The nose block of soft balsa is glued to the body and then carved to conform to the outline of the nose. It should be rounded as much as possible. The cowl formers are shown in full size on the bottom right of plate one. Landing gear and skid details are shown clearly on plate one with everything labeled. Note that the skid is one complete piece.

The landing gear is one piece. The axle is a straight piece of wire, bound with iron wire and soldered to the wire struts. Battery box details are shown on plate two. The coil box is built around the coil. Note the hooks near the side longerons to hold the wing rubber bands. The circuit diagram is shown on plate two. The upper timer is the self-timer, while the lower one is the one on the motor.



Tail

All tail construction is covered completely on the plans. The rib sections are shown on plate two and should be used as a guide in con-