

Garish lines set off this all-swept model with mono-pod engine mount. It's wrapped around a .099 engine and is glossed up with a plastic needle-nose spinner. Unique single wheel gets three points at rear.

DEVIL DART



**FLYING
MODELS**

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This designer of many fine Stunt models, likes to have a little fun between grueling contests, Ergo, a Devil Dart.

● If this design resembles a neon sign you've seen somewhere, it's because that's where the idea originated. Looking at the profile of the fuselage and booms alone, you will notice a striking resemblance to many arrow shaped signs seen blinking on and off throughout the country. Hmmm . . . everything else has been copied so why can't we copy a neon sign?

The design is sound and there are no tricks in building or flying the model. We cannot claim that this ship has taken years of development or that it has been flight-tested over a long period of time. The fact of the matter is, that after we got our idea from the neon sign at the local hamburger stand we sat down and designed and built the model in two nights. It has only 15 flights to date. Do not however, let this discourage you as it is reasonably conventional.

With a good .09 the ship is fast and will turn extra tight when you want. The original is capable of performing vertical eights in about 40° on 40-foot lines. It will turn the extra tight and fast winding loops that you have perhaps admired occasionally on your local flying field. Before we go further, let us give you some statistics on at-

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Larry looks over his handiwork. Triple nocks are not for stringing to bow, ship just has that arrow look for kicks. Tis said it's real flighty.

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taining this performance.

The original weighed only 7 ounces complete. Sig lightweight balsa was used along with a clear finish to keep weight down. A light wing loading is essential if you want your ship to perform these extra fast consecutive loops that continually grow tighter and tighter before your eyes. If your ship weighs in at under 8 ounces and it is built with reasonable care, you can expect the performance described above.

A good engine is of course essential. There are several good .09 engines currently available. A Torp .09 and Thermal Hopper fuel was used in the original with good results. To the modeller who simply wants consistent sport flying performance and feels that his finished model will weigh 9 ounces or more, we advise lengthening the nose by $\frac{1}{2}$ " in order to keep the C.G. located close to the point indicated.

Construction of the model is quite easy and conventional. The wing framework is built first. A flat board is helpful if you wish to pin it down. Block up sections where necessary. The center-section is sheeted with $\frac{1}{16}$ " balsa. Note that there is a reinforcing $\frac{1}{4}$ " x $\frac{1}{8}$ " spar in the center-section and on the bottom only. This serves also as a bellcrank support. Mount the bellcrank as indicated by inserting the $\frac{1}{16}$ " ply bellcrank mount and passing the mounting screw through the lower spars as well as the plywood. Complete the wing by adding tips, lead-outs, pushrod and outboard wing weight.

Cut out fuselage sides from $\frac{1}{16}$ " and cement in the motor mounts. Join the two sides with the firewall and cement the unit in place on the wing. Make your tank from tin stock or buy

a Perfect No. 6 tank and modify the fuel outlet and vents. The fuel draw tube should be located to draw fuel from a point $\frac{1}{2}$ way down and about $\frac{1}{4}$ " from the rear end of the tank. One vent is used. This vent runs through the bottom of the tank and ends as close to the top as possible. Install the tank in the position shown, cut through the center sheeting where necessary.

Bend the one wheel gear to shape and mount it to the $\frac{1}{16}$ " ply firewall. Drill the engine bearers to suit the engine used. Complete the fuselage by adding the remaining formers, top and bottom. Sand the entire wing and fuselage.

For convenience, we advise covering the wing at this point. Be sure the covering is securely stuck to the $\frac{1}{8}$ " ribs that serve as boom mounts.

The two $\frac{1}{8}$ " booms and horizontal tail may now be cut out. Cement the booms in place being sure to align them properly. Bolt the control horn to the elevator. We advise bending

the pushrod wire before cementing the stab in place. Then you may slide the stab forward or back to give equal amounts of up and down. Add the pushrod guide and you are ready to finish the model. Apply several coats of thinned down clear dope and trim to your liking. We preferred the arrow like trim shown in the photos.

Flying is straight forward. We used 40-foot .010" diameter lines with a small handle.

When using the one vent tank described, fill the tank by holding the nose straight down and the inside wing low. This allows the tank to "breathe" through the fuel draw tube while fuel is being pumped in through the one vent.

When the engine is set, have your helper hold the model pointed out slightly and release it as you would any conventional model. Feel the ship out through several safely high and wide maneuvers and then, depending on your experience, proceed to more advanced maneuvers.