■ If you have the urge to get out and try model rocketry but don't have the time or inclination to spend several hours assembling a kit, what you need is a very simple model rocket that can be put together quickly, one that is reliable, and has good performance.

If you are a beginner in model rocketry, chances are that you need a similar kind of model to help you learn about

the hobby from the beginning.

Such a model rocket exists, and it has been flying since 1959. It was originally thrown together in twelve minutes the night before a contest. Since all model rockets, by tradition, must have a name, there was an obvious handle for this quick-and-dirty model: "Dirty Bird III."

Thus was the Dirty Bird III born. And it has had a long and illustrious history. It won the drag race at the First Annual Model Rocket Championships. It has flown during demonstrations at the Air Force Academy and the annual Boy

Scout Jamboree.

The original, still flying, has logged nearly 200 flights in many parts of the country, under all sorts of weather conditions. Two other models, one built in late 1959 and the other in early 1960, have proved so rugged that there simply hasn't been any need to build more of them. They fly beautifully to about 300 feet with an NAR Type B engine (Rock-A-Chute B-6 or Estes Type B.8-4) and can be prepared for another flight in less than 30 seconds. It doesn't weathercock, doesn't horse around, it flies like a bird.



The following parts are required: 1 vinyl nose cone (Model Missiles #MM-001-14 or Estes #160-PNC-2), about 50 cents including nose insert; 1 paper body tube, 0.75" i.d. x 0.84" o.d. x 91/4" long (Model Missiles #MM-001-2 or Estes #160-BT-1), about 50 cents; 1 set of plastic fins (Estes #160-PF-1), 50 cents; 12 inches of 1/8" contest rubber; 1 piece of hard plastic tubing 5/32" i.d. x 9/32" o.d. x 2" long.

That's all you need. To assemble the

bird, glue plastic fin assembly to one end of body tube. Punch hole in side of body tube about 1" back from front end. Tie knot in one end of contest rubber and poke other end down through hole in body tube. Reach in and pull rubber through until knot comes up snug against body tube. Insert plastic base into vinyl nose cone, tie contest rubber to eyelet. Glue plastic tubing to side of body tube about half-way along it. Make sure to line plastic tube up with body. Your Dirty Bird is now complete. Average time for assembly: 12 minutes. You can paint it as you desire, or fly her un-painted. The model doesn't care, she'll fly fine either way. If you aren't in a hurry, paint it . . . it looks better.

Be sure to wait until glue holding plastic tubing to body tube has dried before painting or flying. If you are in such a hurry that you don't want to wait for this, tape plastic tube to body with a couple of wrap-arounds of Scotch Tape.

To fly the bird, borrow somebody's rod launcher or make your own by get-

## ROCKETS! Stine's "The Wonderful Dirty Bird"





If something breaks, a little glue is all that is needed. But there isn't much to break.

"Dirty Bird III" is made from commercially available parts, and you can put it together for less than \$2 if you buy all the parts, about 60 cents if you make some of the parts yourself. It can be assembled about as fast as you can work, because there is only one part that requires time for glue to dry. (If you use Scotch Tape to hold that part on, there is no waiting at all!)

the mail or scrounged from other kits. Although it isn't my practice to ballyhoo one manufacturer over another, all the parts can be obtained from a single source, if you desire: Estes Industries at 5505 Tejon, Denver 21, Colo. You can also get the nose cone and body tube from Model Missiles, Inc. at 4629 E.

All the parts may be ordered through Cedar, Denver.

"Dirty Bird II" (top) is not a sleek-looking model rocket, but it is easy to build, inexpensive, rugged and reliable in flight. The three DB-III's (above, left) by author G. Harry Stine, have been flying for more than a year. Five basic parts required for GHS' simple rocket (above, right) include plastic fin assembly which is available commercially pre-fabbed. Other "store-boughten" items: paper body tube and vinyl nose cone. Rubber band is 12inch length of 1/s-inch flat modelplane contest type. Small plastic tube serves as launching lug, can be found at most hardware, radio or hobby shops. All photos by Mr. Stine.

ting a piece of 1/8" x 36" music wire from the hobby store. You can stick about 3 inches of this in the ground so that rod points vertical, or you can get fancy by making a wooden base for the rod. You'll also need an electrical remote firing system to ignite the engine. If you can't beg or borrow one, you can make one from some lamp cord and a couple of radio clips for less than 50 cents. Follow directions that come with the engines.

The Dirty Bird flies best with Type B

engines, although it will perform with Type A engines if you don't want real performance. This is because the model is somewhat heavy, weighing over two ounces with engine installed.

After installing igniter in engine in accordance with manufacturer's instructions, wrap rubber band around front end of engine, another around middle of engine. Then slide engine up between the

(Continued on page 61)

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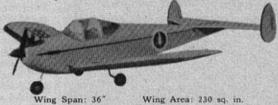
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#### Bird

(Continued from page 24)

four fins. Check to make sure nose cone will come off okay. Then put model on its launcher and proceed according to engine's instructions.

Note: NEVER fly this model without using a launcher of the type described. The model takes time to gain sufficient airspeed to make the fins effective in keeping it in a straight vertical path.

The recovery system of the Dirty Bird III is a simple nose blow-off set-up. The ejection charge in the engine does this. With the nose off and anchored to the body with a rubber band the model (unstable) will flutter back to the ground. You can reach out and catch it, it falls so slowly. If she lands on concrete, it may break one of the plastic fins. If this happens, the fin can be glued back with ordinary plastic model cement.

To fly the model again, simply replace the nose cone, take out the old motor, and insert a new powerplant. Time required: about 30 seconds.

Provided you don't get it hung in a tree, dropped in the drink, or run over by a truck, Dirty Bird III will fly as long as you keep putting in new engines. If the rubber cord breaks, tie another knot in it and reassemble model; if rubber gets brittle after much use, you may have to replace it. If the front end of the body gets banged up a little, you can straighten it with your fingers or saw off a bit with a razor saw to remove dammaged portion. If your kid brother runs off with it, build another one.

Okay, so it doesn't go out of sight. O.O.S. models take time and patience to put together. They are tricky to fly, and you can lose them on their first flights. But Dirty Bird III will stay with you, and you will be flying it for fun years from now!

I have had a lot of fun with my three Dirty Birds. When I just want to fly a bird and don't want to take the trouble to go out to the local model rocket range, I fly it in perfect safety right off my driveway.

Dirty Bird III, the slow-poke model that doesn't quit, is just the thing if you want to try model rocketry.

#### Chatter

(Continued from page 43)

at managing contests than they are flying in them-but that's too modestly put. Membership total around 30, with 15 reliable. Meeting programs vary.

"We have had a program of lectures on general subjects like engines, props, covering and the like, sprinkled with movies and slides. Under my erratic leadership," he goes on, "the executive

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