

# Estes Industries Rocket Plan No. 15

## SPUTNIK - TOO!

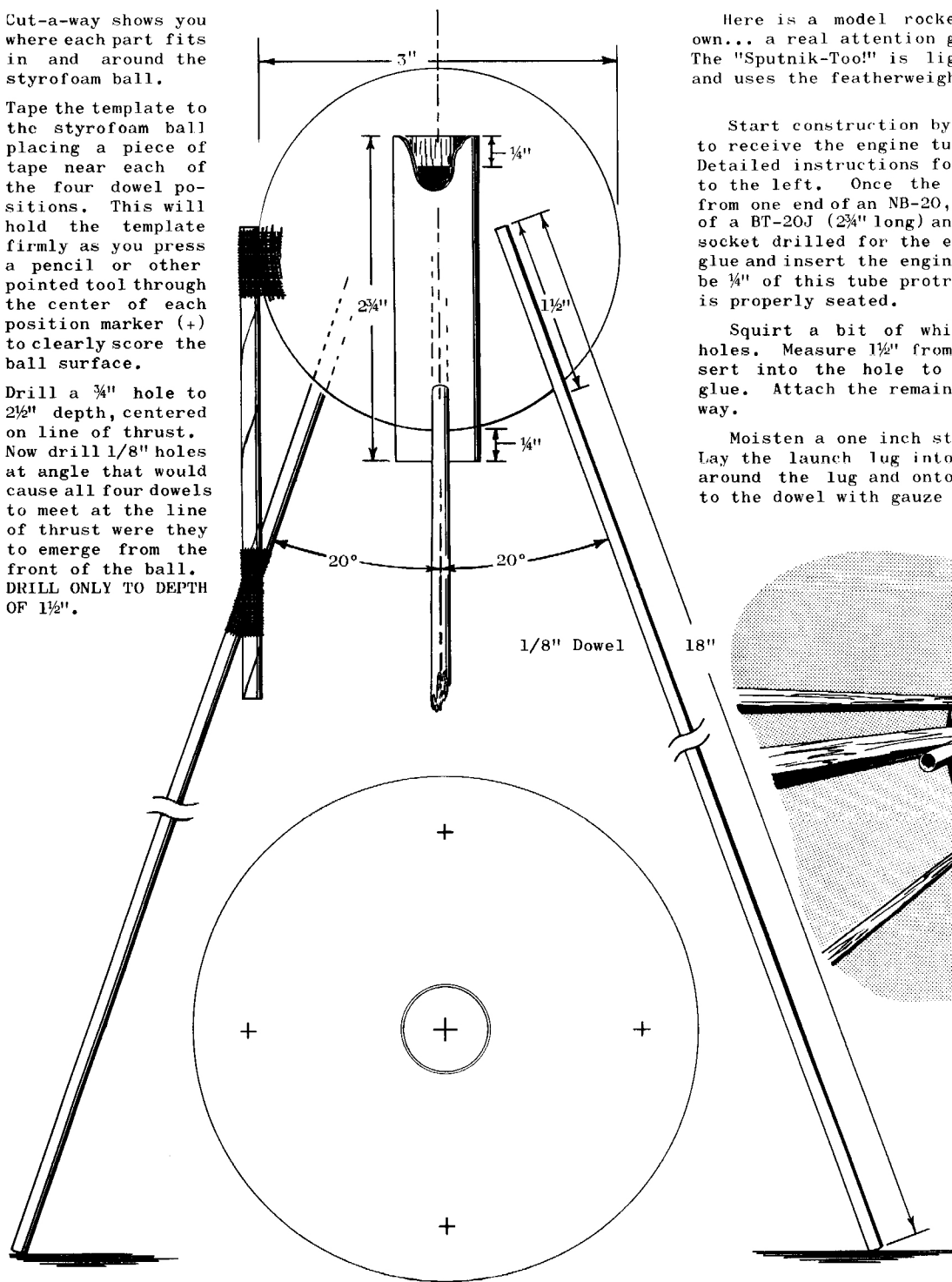
AN ODDBALL...

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Cut-a-way shows you where each part fits in and around the styrofoam ball.

Tape the template to the styrofoam ball placing a piece of tape near each of the four dowel positions. This will hold the template firmly as you press a pencil or other pointed tool through the center of each position marker (+) to clearly score the ball surface.

Drill a  $\frac{3}{8}$ " hole to  $2\frac{1}{2}$ " depth, centered on line of thrust. Now drill  $1/8$ " holes at angle that would cause all four dowels to meet at the line of thrust were they to emerge from the front of the ball. DRILL ONLY TO DEPTH OF  $1\frac{1}{2}$ ".

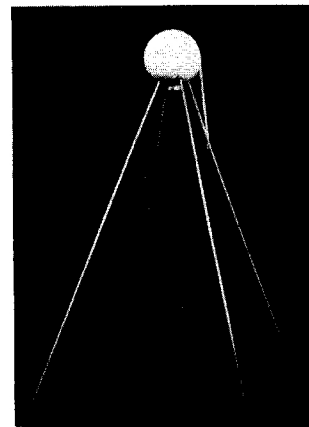
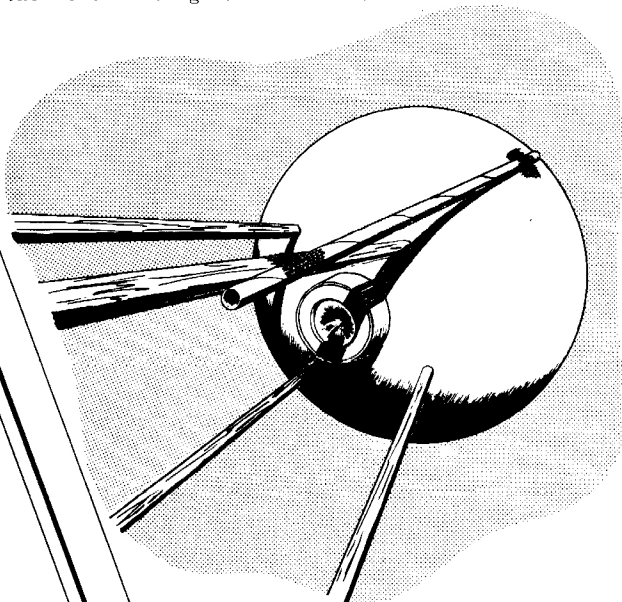


Here is a model rocket with a character all it's own... a real attention getter where ever it appears! The "Sputnik-Too!" is light in weight, easy to build and uses the featherweight recovery principle.

Start construction by preparing the styrofoam ball to receive the engine tube and dowel stabilizers. Detailed instructions for use of the template are seen to the left. Once the ball is ready, cut a  $1/4$ " slice from one end of an NB-20, glue this slice into one end of a BT-20J ( $2\frac{3}{4}$ " long) and stand aside to dry. Smear socket drilled for the engine tube with a film of white glue and insert the engine tube assembly. There should be  $1/4$ " of this tube protruding from the ball when tube is properly seated.

Squirt a bit of white glue into one of the  $1/8$ " holes. Measure  $1\frac{1}{2}$ " from one end of the dowel and insert into the hole to this point. Wipe off excess glue. Attach the remaining three dowels in this same way.

Moisten a one inch strip of gauze with white glue. Lay the launch lug into position and form the gauze around the lug and onto the ball. Secure the other to the dowel with gauze as shown.



- 1 Styrofoam ball, 3" O.D.
- 4 Dowel, 18" x  $1/8$ " Dia.
- 1 Body tube  $2\frac{3}{4}$ " long
- 1 Nose block piece
- 1 Launching Lug, 5" long

- Part # SB-3
- " " WD-1
- " " BT-20J
- " " NB-20
- " " LL-1C

NOTE: Rather than use the 5" launching lug, you may desire to mount a short lug on the ball and another lug on the dowel. If so, use another dowel to line them up.