

MICRON™

FLYING MODEL ROCKET



A Division of Matheson

SKILL LEVEL 1

For the Beginning Modeler.

- SUPER PERFORMER
- Streamer
- Engine Hook
- Balsa Fins

Length: 8.25 in. (21 cm)

Dia.: .736 in. (18.7 mm)

Weight: 50 oz. (14.2 g)

Recommended Engines:

1/2A3-2T (First Flight),

A3-4T, or A10-3T

This is a model kit requiring assembly. Glue and finishing supplies, launch system and engines for flight are not included.

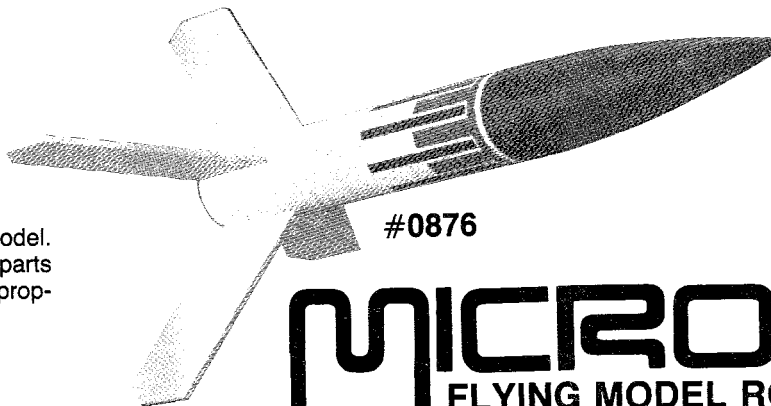


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MICRON™

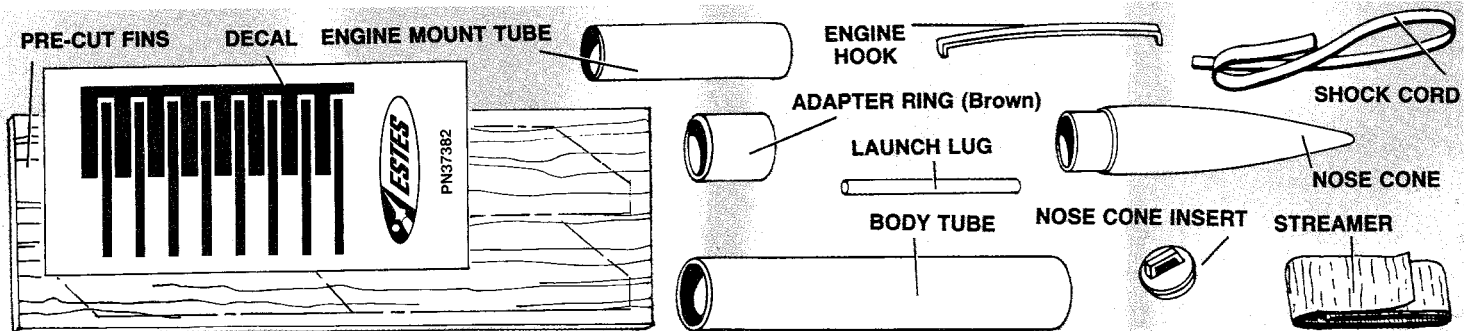
FLYING MODEL ROCKET

ASSEMBLY TIP

Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

PARTS AND SUPPLIES

Locate the parts shown below and lay them out on the table in front of you.



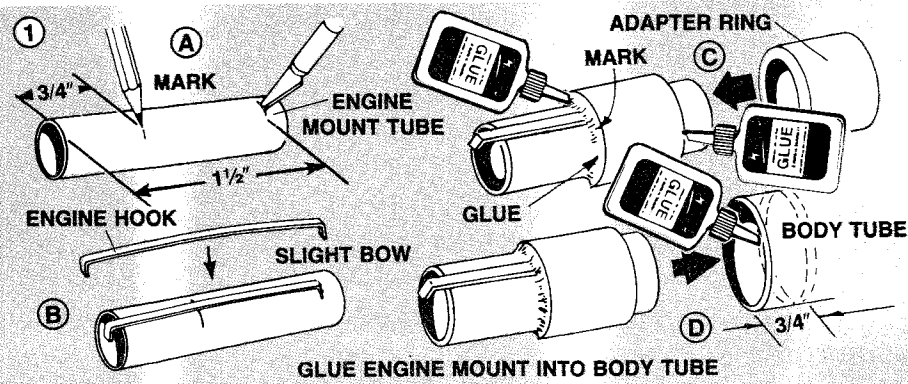
In addition to the parts included in the kit you will also need:



ROCKET ASSEMBLY

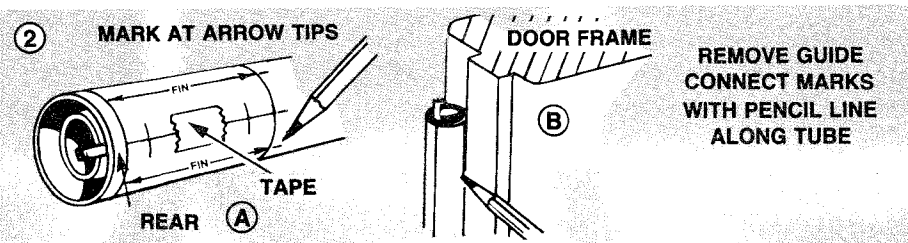
1.

- A. Mark engine mount tube $\frac{3}{4}$ inch and $1\frac{1}{2}$ inches from one end and then cut $\frac{1}{8}$ inch long slit at $1\frac{1}{2}$ inch mark.
- B. Insert one end of engine hook into slit.
- C. Slide adapter ring onto tube as shown to the $\frac{3}{4}$ inch mark and then glue both ends of ring to tube.
- D. Apply a line of glue around inside of one end of body tube as shown. Push engine mount into tube until tube ends are even.



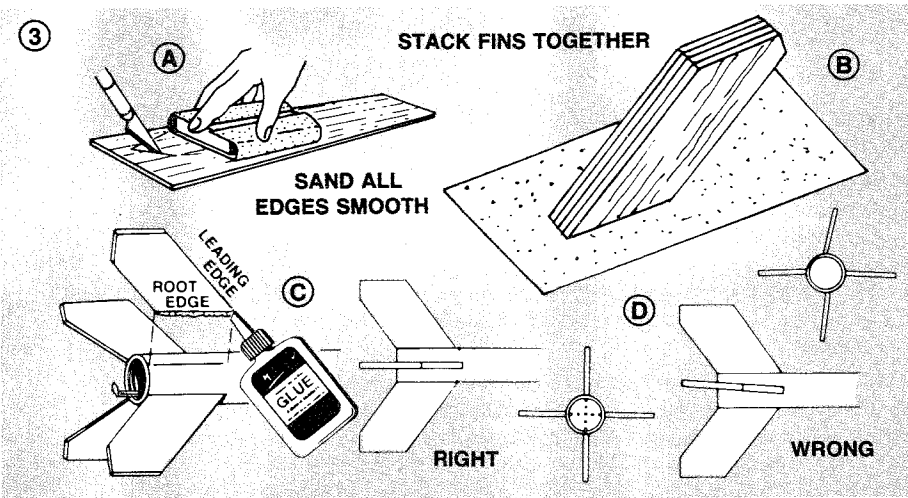
2.

- A. Cut out tube marking guide from back of this sheet. Do NOT cut out shock cord mount. Wrap guide around the tube and tape. Mark tube at arrows. Remove guide and save.
- B. Draw straight lines connecting each pair of marks the length of the tube.



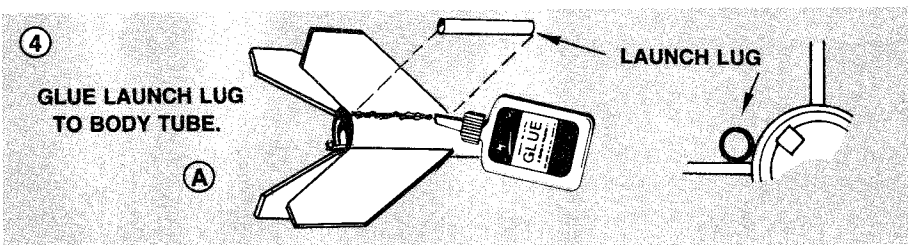
3.

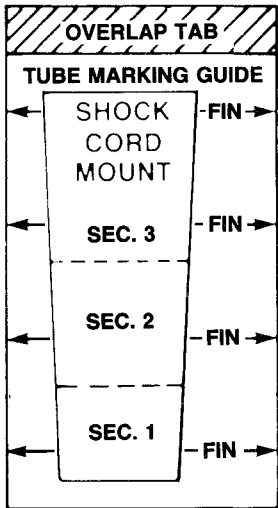
- A. Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
- B. Stack fins together. Sand all edges smooth.
- C. Apply a small amount of glue to root edge of a fin. Glue fin on alignment lines. Repeat for other fins. Let each fin dry several minutes before applying the next fin.
- D. Looking at the rocket from the rear, the fins should be in the positions shown with the trailing edge of each fin even with the end of the tube.



4.

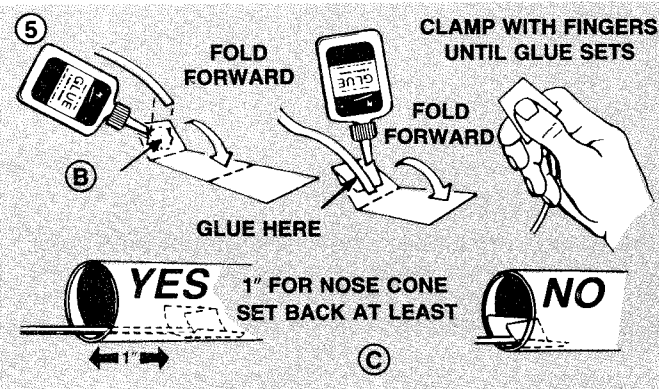
- A. Glue launch lug to fin-body tube joint as shown.





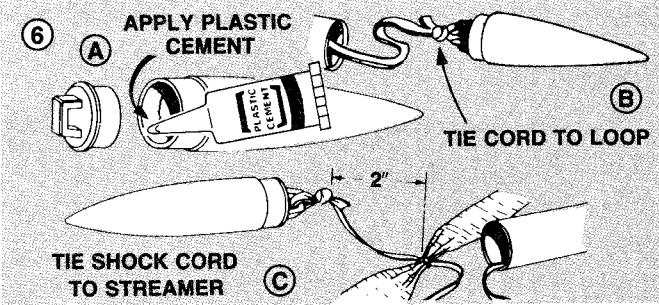
5.

- Cut shock cord mount from tube marking guide.
- Crease on dotted lines by folding. Spread glue on section 1 and lay end of shock cord into glue. Fold over and apply glue to back of first section and exposed part of section 2. Lay shock cord as shown and fold mount over again.
- Apply glue to inside front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount. Press mount firmly into glue as shown. Hold until glue sets.



6.

- Assemble nose cone and nose cone insert with plastic cement.
- When dry, tie free end of shock cord to nose loop with double knot.
- Use a double knot to tie the shock cord around the plastic streamer about 2" from the nose cone.



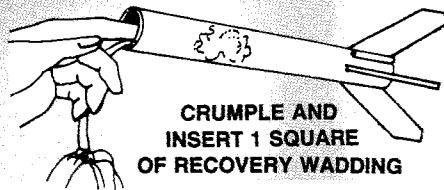
CUT OUT
TUBE MARKING
GUIDE FOR STEP 2
THEN CUT OUT
SHOCK CORD
MOUNT FOR STEP 5

FINISHING YOUR ROCKET

Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. When sanding sealer and glue are completely dry, paint model with spray enamel. Follow instructions on spray can for best results. Let paint dry overnight.

To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. Refer to photograph on front page and/or on front of panel for decal placement. Slip decal off backing sheet and onto model. Blot away excess water. For best results, let decals dry overnight and apply a coat of clear spray paint to protect decals.

ROCKET PREFLIGHT



FOLD STREAMER IN HALF 6 TIMES



ROLL STREAMER TIGHTLY



NOTE: If nose cone fits too loosely wrap tape around the shoulder until a snug but not tight fit is achieved.

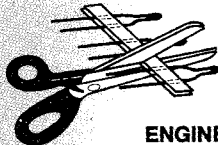


INSERT SHOCK CORD, STREAMER, AND NOSE CONE INTO ROCKET

NOTE: If streamer fits too tightly into body, remove and re-roll. A too-tight fit could cause an ejection malfunction during flight.

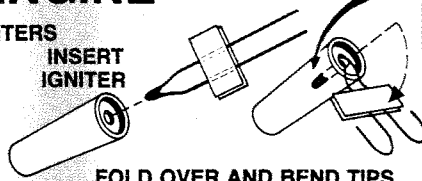
PREPARE ENGINE

SEPARATE THE IGNITERS



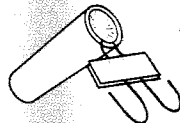
ENGINE

INSERT IGNITER



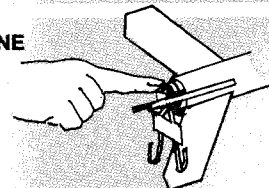
FOLD OVER AND BEND TIPS

IGNITER TIP MUST TOUCH PROPELLANT DEEP INSIDE NOZZLE OPENING



APPLY AND FIRMLY PRESS TAPE DISC OR MASKING TAPE IN PLACE

INSTALL ENGINE IN ROCKET



HOOK MUST LATCH OVER END OF ENGINE

LAUNCH SUPPLIES

To launch your rocket you will need the following items:

—Estes Electrical Launch System and Launch Pad

—Estes Recovery Wadding No. 2274

—Recommended Estes Engines: 1/2A3-2T, A3-4T, or A10-3T.

Use 1/2 A3-2T for first flight to become familiar with your rocket's flight pattern. Use only Estes products to launch this rocket.

FLYING YOUR ROCKET

Choose a large field away from power lines, tall trees, and low flying aircraft. Try to find a field at least 250 feet square. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great.

Launch area must be free of dry weeds and brown grass.

Launch only during calm weather with little or no wind and good visibility.

MISFIRES

Failure of the model rocket engine to ignite is nearly always caused by incorrect igniter installation. An Estes igniter will function properly even if the coated tip is chipped. However, if the coated tip is not in direct contact with the engine propellant, it will only heat and not ignite the engine.

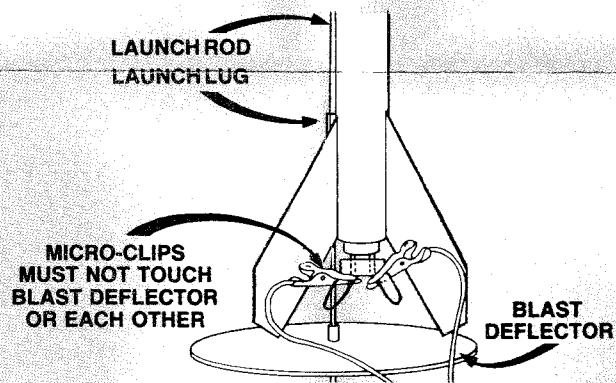
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter leads firmly to base of engine as illustrated above. Repeat the countdown and launch procedure.

FOR YOUR SAFETY AND ENJOYMENT

Always follow the NAR-HIA* MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities.

*National Association of Rocketry-The Hobby Industry of America

COUNTDOWN AND LAUNCH



- ⑩ REMOVE SAFETY KEY to disarm the launch controller.
- ⑨ Remove safety cap and slide launch lugs over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.
- ⑧ Attach micro-clips to the igniter wires. Arrange the clips so they do not touch each other or the metal blast deflector. Attach clips as close to protective tape on igniter as possible.
- ⑦ Move back from your rocket as far as launch wire will permit (at least 15 feet).
- ⑥ INSERT SAFETY KEY to arm the launch controller.

Give audible Countdown 5...4...3...2...1

LAUNCH!!! PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES

Remove safety key—Replace cap on rod.

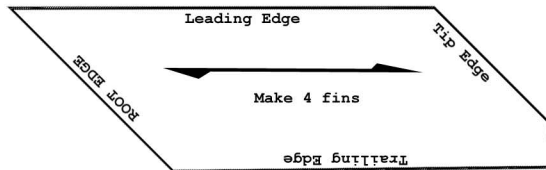
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Estes #876 Micron

Full-Size Fin Pattern and General Instructions

PARTS LIST

Nose Cone	BNC-20AZ
Body Tube	BT-20DJ
Motor Tube	BT-5T
Engine Block	CR-45
Centering Rings	CR-520
Engine Hook	BMSEH-175
Streamer	18" x 1.5" Mylar or Crepe Paper
Launch Lug	LL-18-125

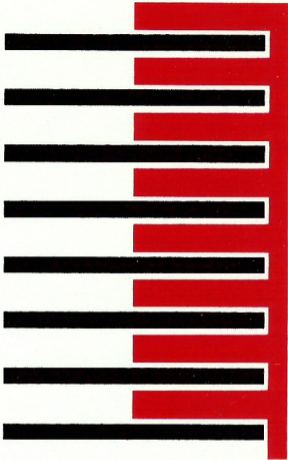


General Instructions

Trailing edges of fins are flush with bottom of body tube.

Bottom of launch lug is flush with bottom of body tube.

Cut a slot in motor tube 1/8" from top to accept motor hook. Insert motor hook and slide one CR-520 down over motor tube until it contacts hook, and glue in place. Slip CR-45 ring into motor tube and push down until it makes contact with motor hook. Glue in place. Sand a flat spot on the inside diameter of the other CR-520 to accept the motor hook. Slide this ring up from the bottom of the motor tube 3/4", trapping the motor hook in the flat spot, and making sure the hook is aligned with the tube center line. Glue this assembly into the main body tube, with the bottom of the motor tube flush with the bottom of the body tube.



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