





A DAMON COMPANY

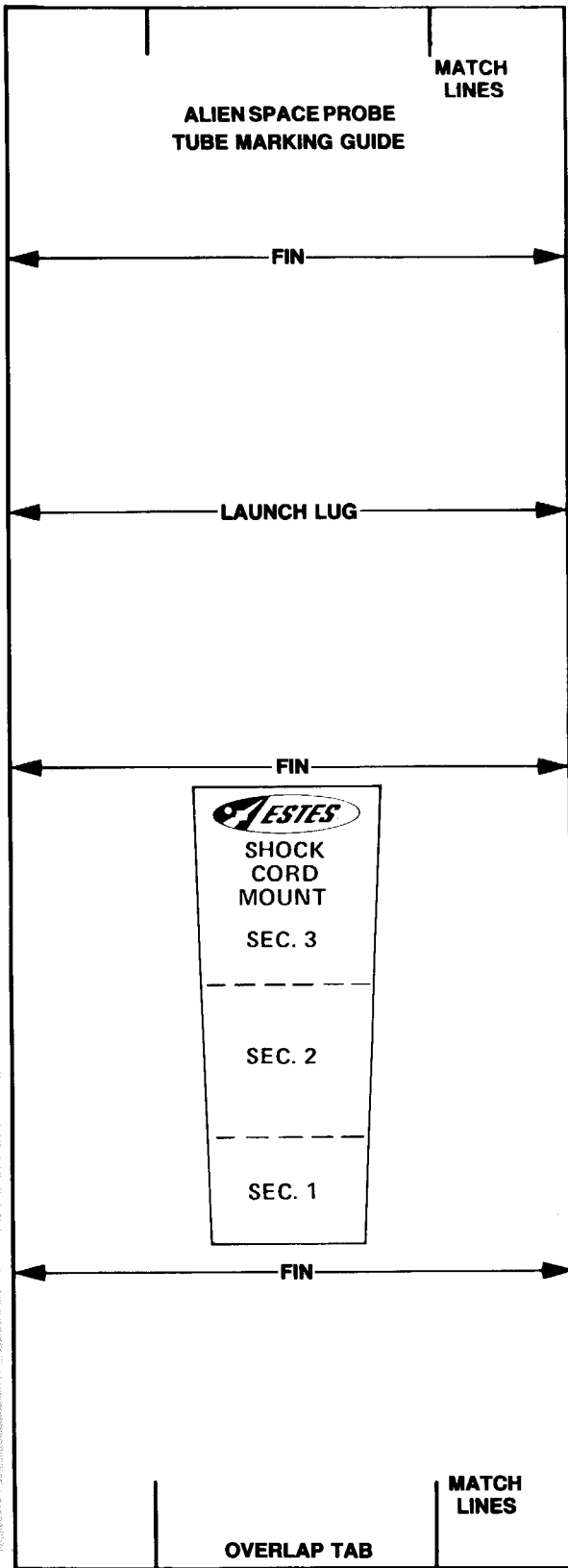
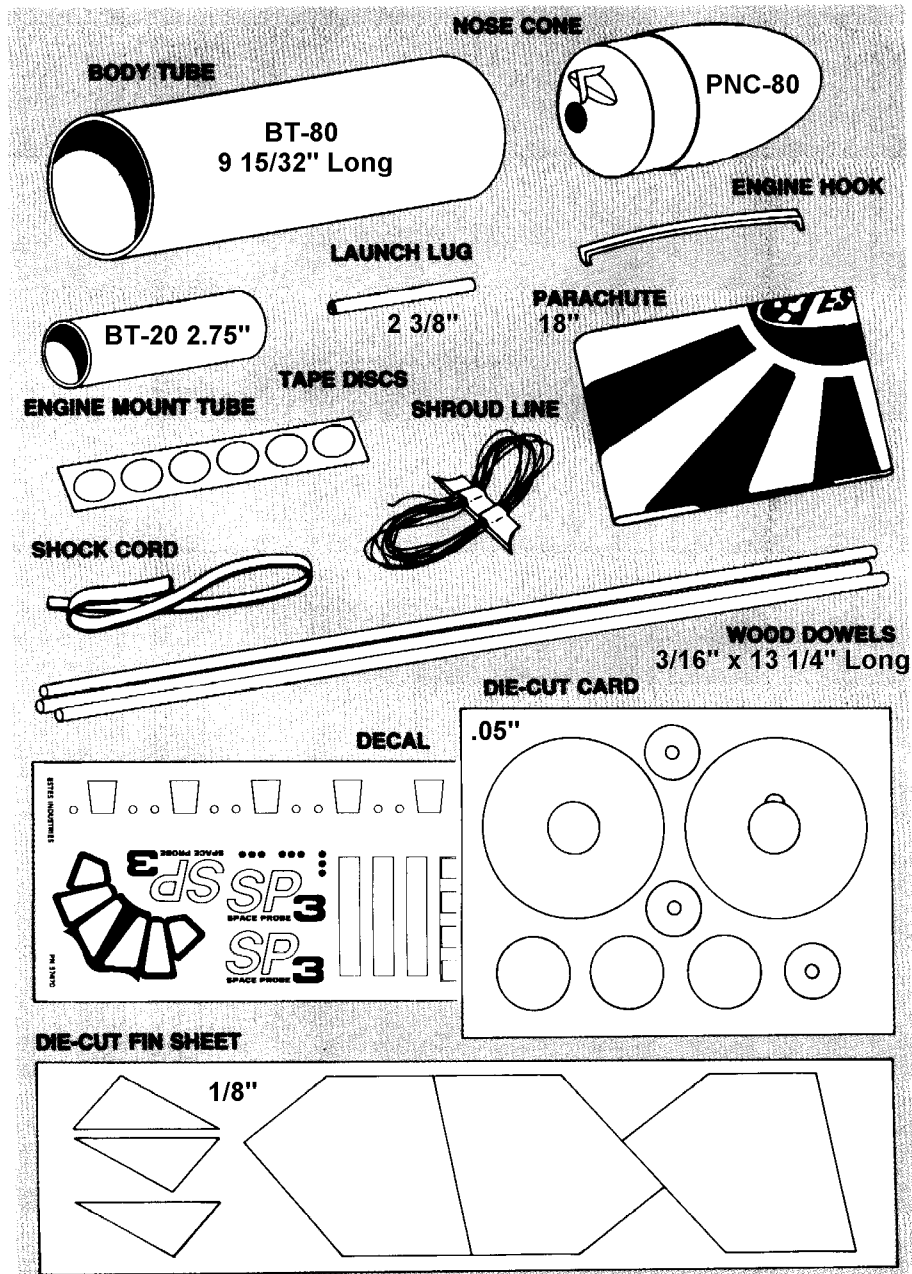
ALIEN SPACE PROBE™

FLYING MODEL ROCKET #2038

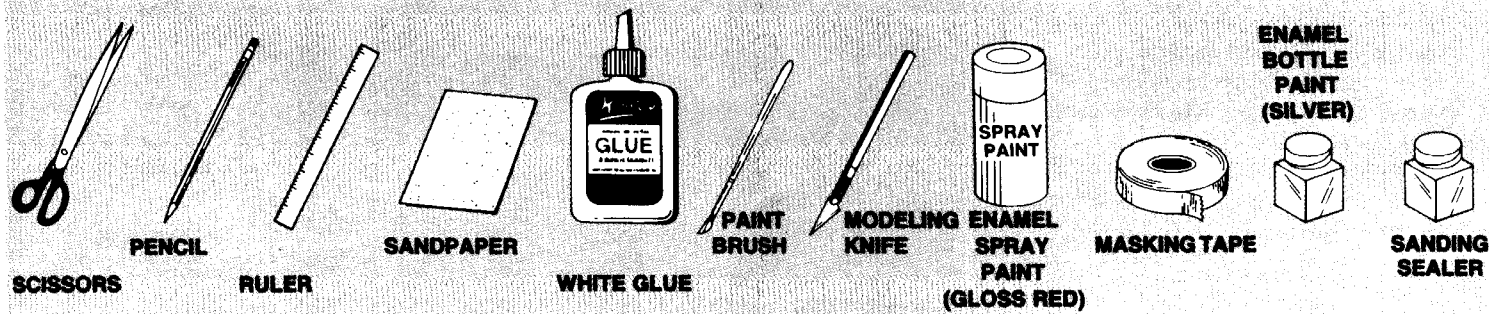
ESTES INDUSTRIES
1295 H Street
Penrose, CO 81240

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:

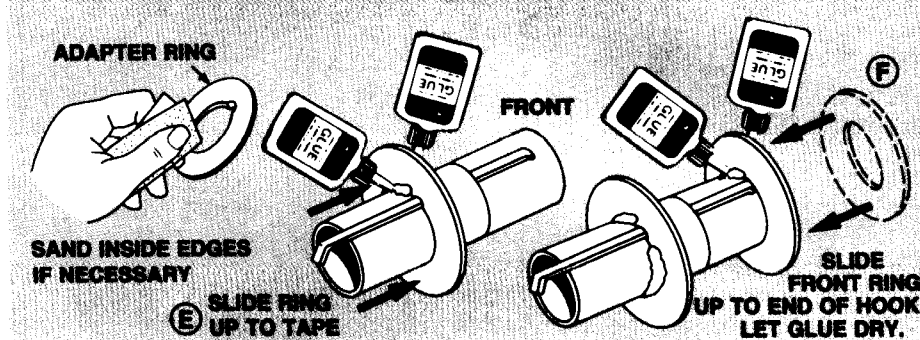
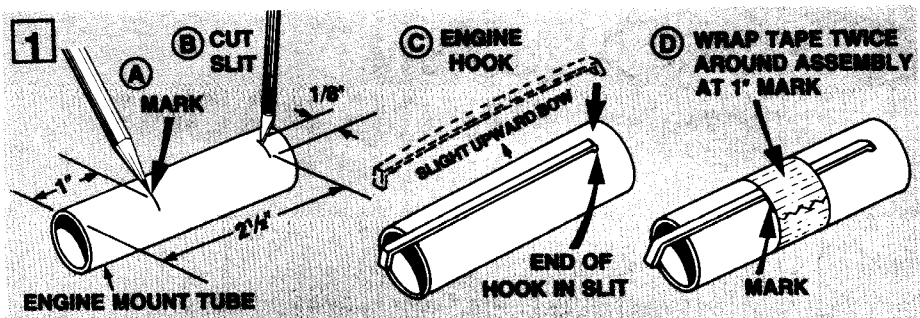


ASSEMBLY TIP

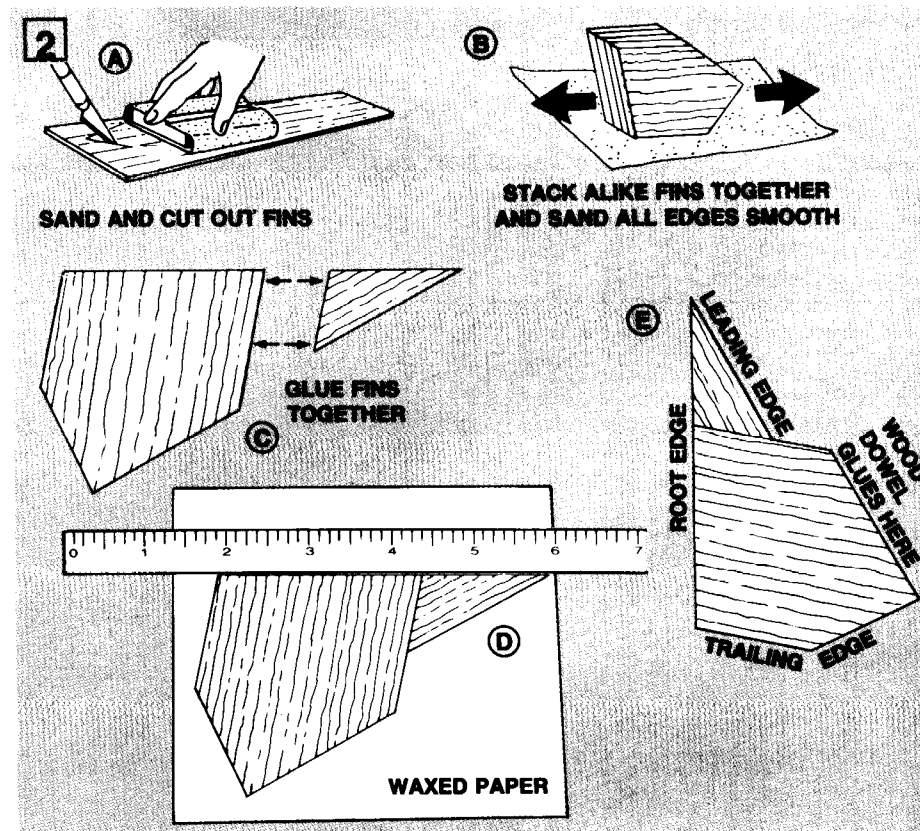
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

ROCKET ASSEMBLY

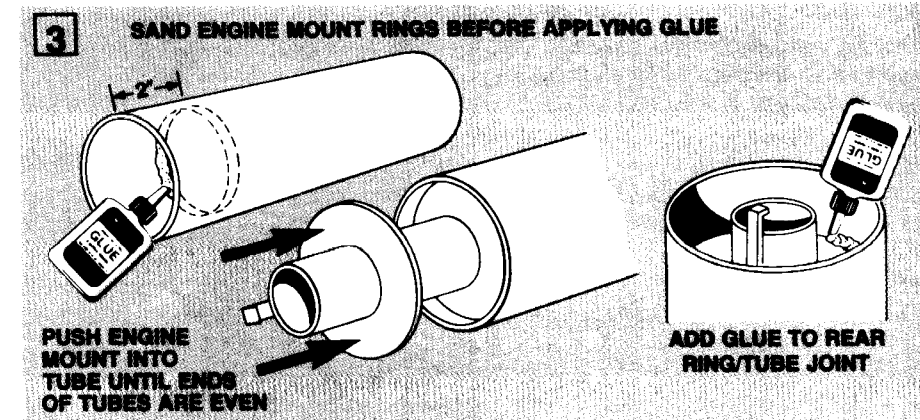
1.
 - A. Mark engine mount tube 1 inch and 2 1/2 inches from one end.
 - B. Cut 1/8 inch long slit at 2 1/2 inch mark.
 - C. Insert one end of engine hook into slit.
 - D. Wrap masking tape around assembly twice at 1 inch mark.
 - E. Remove adapter rings from die-cut card. Sand inside edges of adapter rings, if necessary for proper fit. Slide slotted adapter ring onto rear of tube and up to masking tape. Slot fits over engine hook. Glue both sides of ring/tube joint.
 - F. Slide remaining ring over front of tube and down to end of engine hook. Glue both sides of tube joint. Set assembly aside to dry.



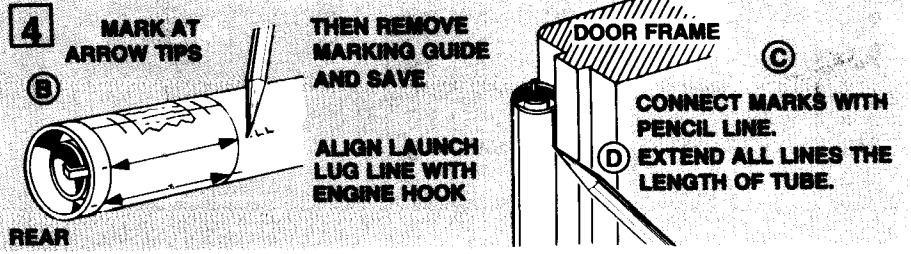
2.
 - A. Fine-sand die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
 - B. Stack fins together. Sand all edges smooth.
 - C. Assemble fin parts over a piece of waxed paper, on a flat surface. Apply glue to edge of part to be joined.
 - D. Press parts together. Use a ruler to make sure bottom edges of parts are straight. If not, adjust parts to make edge straight.
 - E. Wipe away excess glue and let dry. Assemble other fins in same manner.



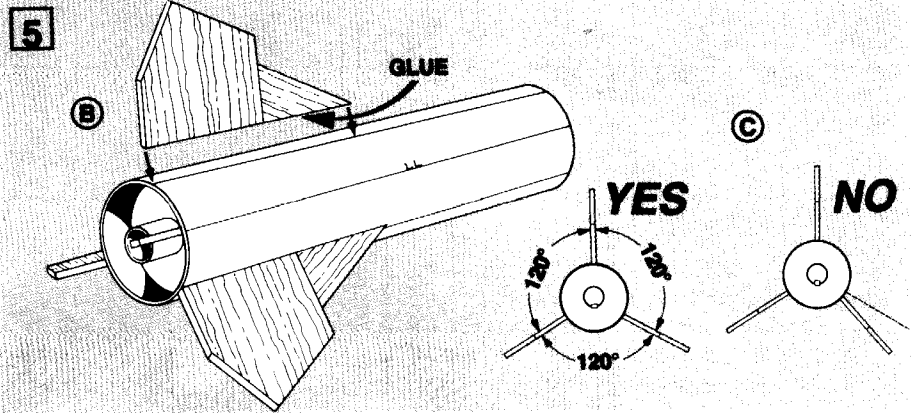
3.
 - A. Sand edges of engine mount rings for a smooth sliding fit into body tube.
 - B. Apply glue inside one end of body tube about 2 inches from end.
 - C. Push engine mount into tube until tube ends are even. Engine hook must extend from end of body tube.
 - D. Apply glue around the inside of the rear of the body tube where it touches the die-cut ring.



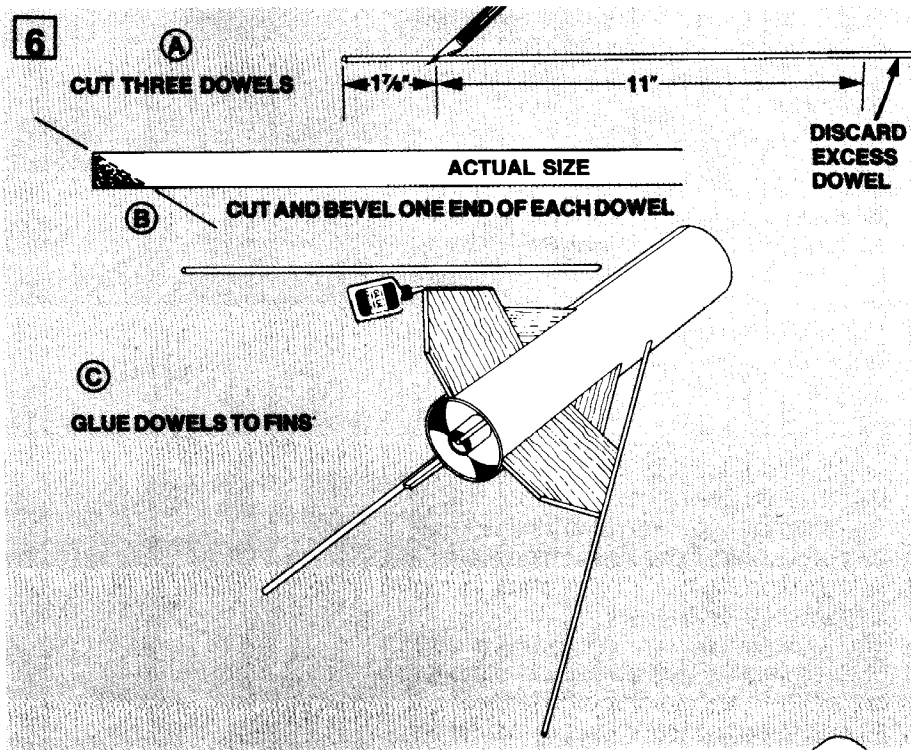
- 4.**
- Cut out body tube marking guide from front of instructions.
 - Wrap guide around the tube and tape. Mark tube at arrows. Remove guide.
 - Draw straight lines connecting each pair of marks.
 - Extend all lines the length of tube.



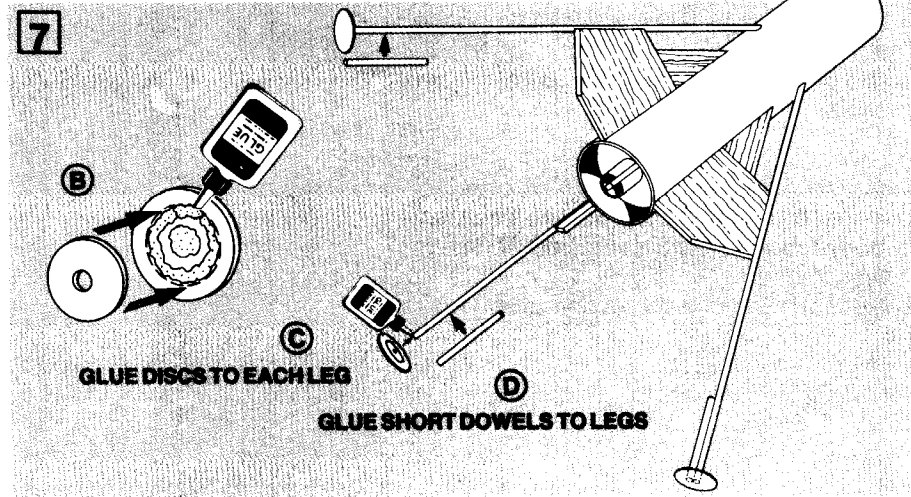
- 5.**
- Compare fins with pattern in step 2 to find front (leading) and gluing (root) edges.
 - Position and glue fins on alignment lines, each even with end of tube, one at a time. Let each dry several minutes before applying next one.
 - Adjust fins to project straight out from tube.
 - Do not set rocket on fins while glue is wet. **FINS MUST BE ATTACHED CORRECTLY FOR STABLE FLIGHT!**



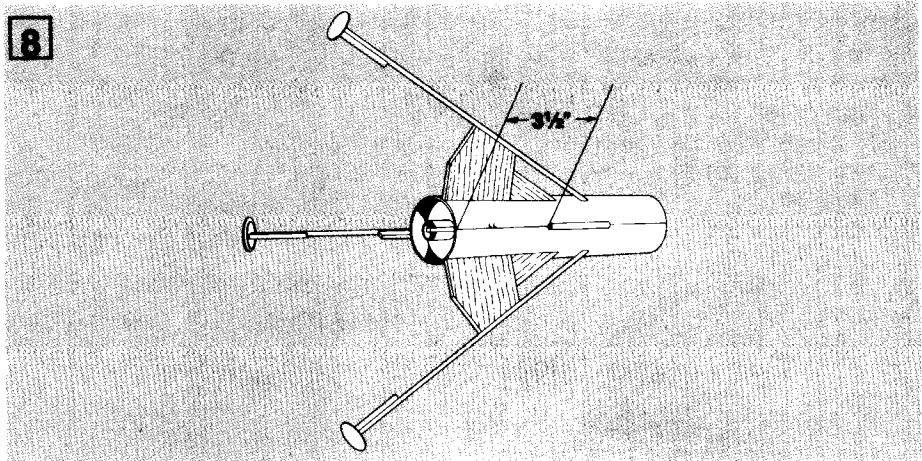
- 6.**
- Cut each of the three wood dowels to 11 inches and 1 7/8 inches long. The 1 7/8 inch pieces to be used in Step 7.
 - Cut and sand one end of each 11 inch long dowel as shown.
 - Apply glue to beveled end of each dowel and edge of each fin and position one dowel on each fin as shown. Apply masking tape if needed to hold dowel in place until glue sets.



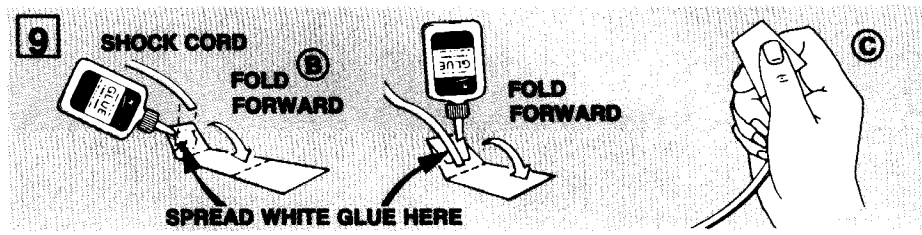
- 7.**
- Remove the six remaining discs from die-cut card.
 - Assemble disc sets as shown.
 - Apply one disc set to each leg or dowel as shown.
 - Glue 1 7/8 inch dowel to each leg as shown.



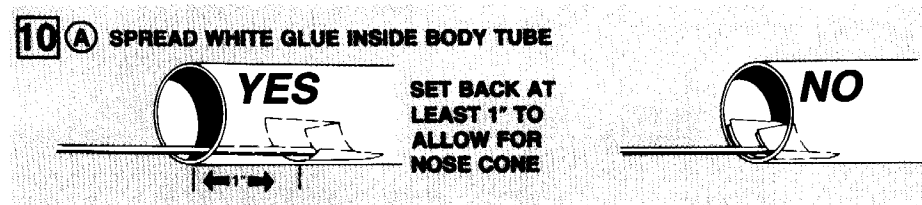
- 8.**
- A. Glue launch lug straight on launch lug line with its rear edge 3½ inches from rear of tube.
 - B. Make sure launch lug runs straight along the tube.



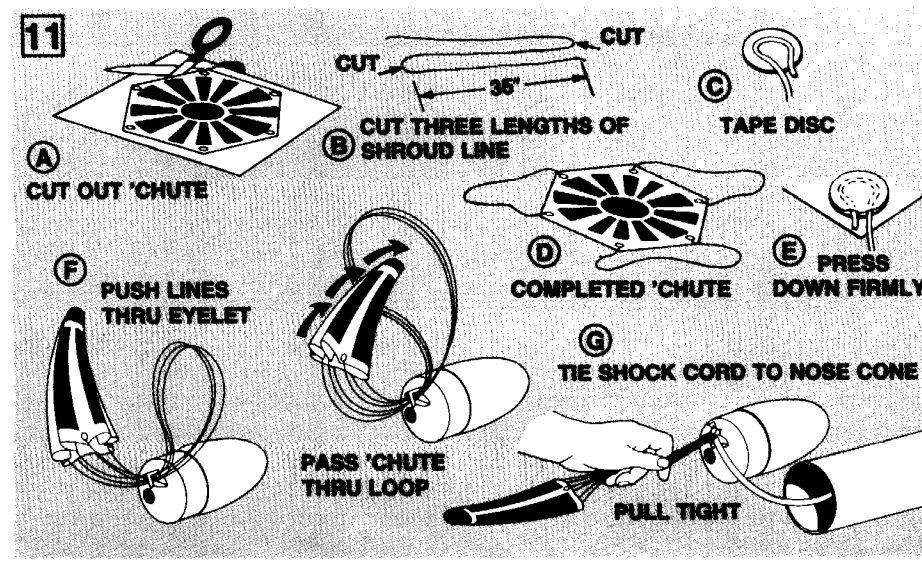
- 9.**
- A. Cut shock cord mount from body tube marking guide.
 - B. Crease on dotted lines by folding. Spread glue on section 1 and lay end of shock cord into glue. Fold over and apply glue to back of first section and exposed part of section 2. Lay shock cord as shown and fold mount over again.
 - C. Clamp unit together with fingers until glue sets.



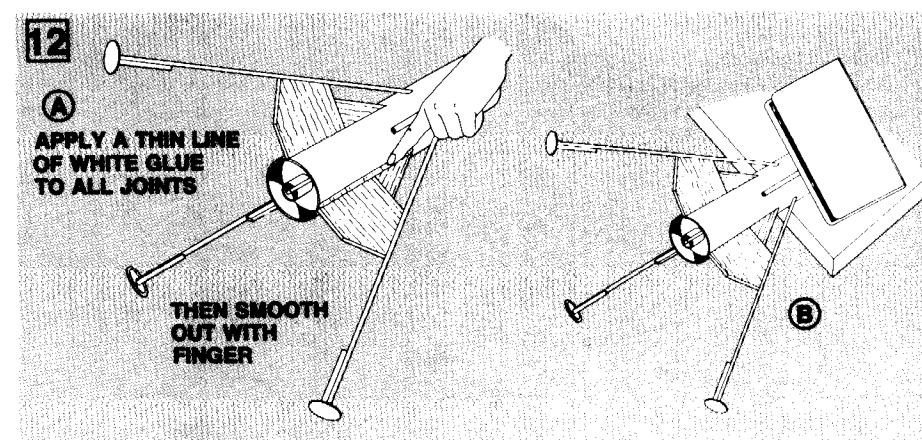
- 10.**
- A. Apply glue to inside of front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount.
 - B. Press mount firmly into glue as shown.
 - C. Hold until glue sets.



- 11.**
- A. Cut out parachute on edge lines.
 - B. Cut three 35 inch lengths of shroud line.
 - C. Form small loops with shroud line ends and press onto sticky side of tape discs.
 - D. Attach tape discs with line ends to top of parachute as shown.
 - E. Firmly press tape discs into place until both tape discs and parachute material are molded around shroud line loops.
 - F. Pass shroud line loops through eyelet on nose cone. Pass parachute through loop ends and pull lines against the nose cone.
 - G. Tie free end of shock cord to nose cone eyelet.

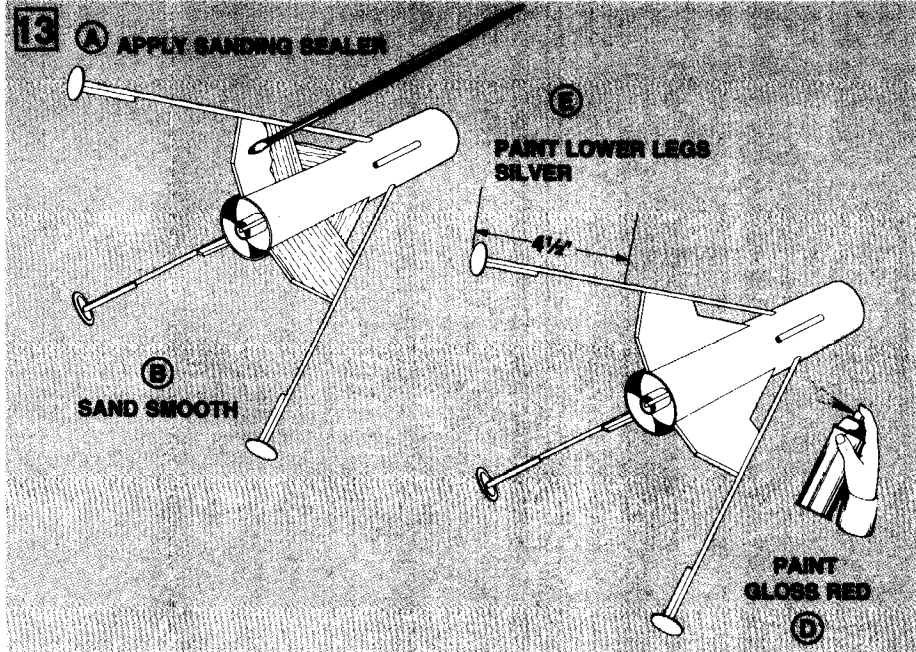


- 12.**
- A. Apply a thin line of white glue to all joints.
 - B. Support rocket as shown until glue dries.



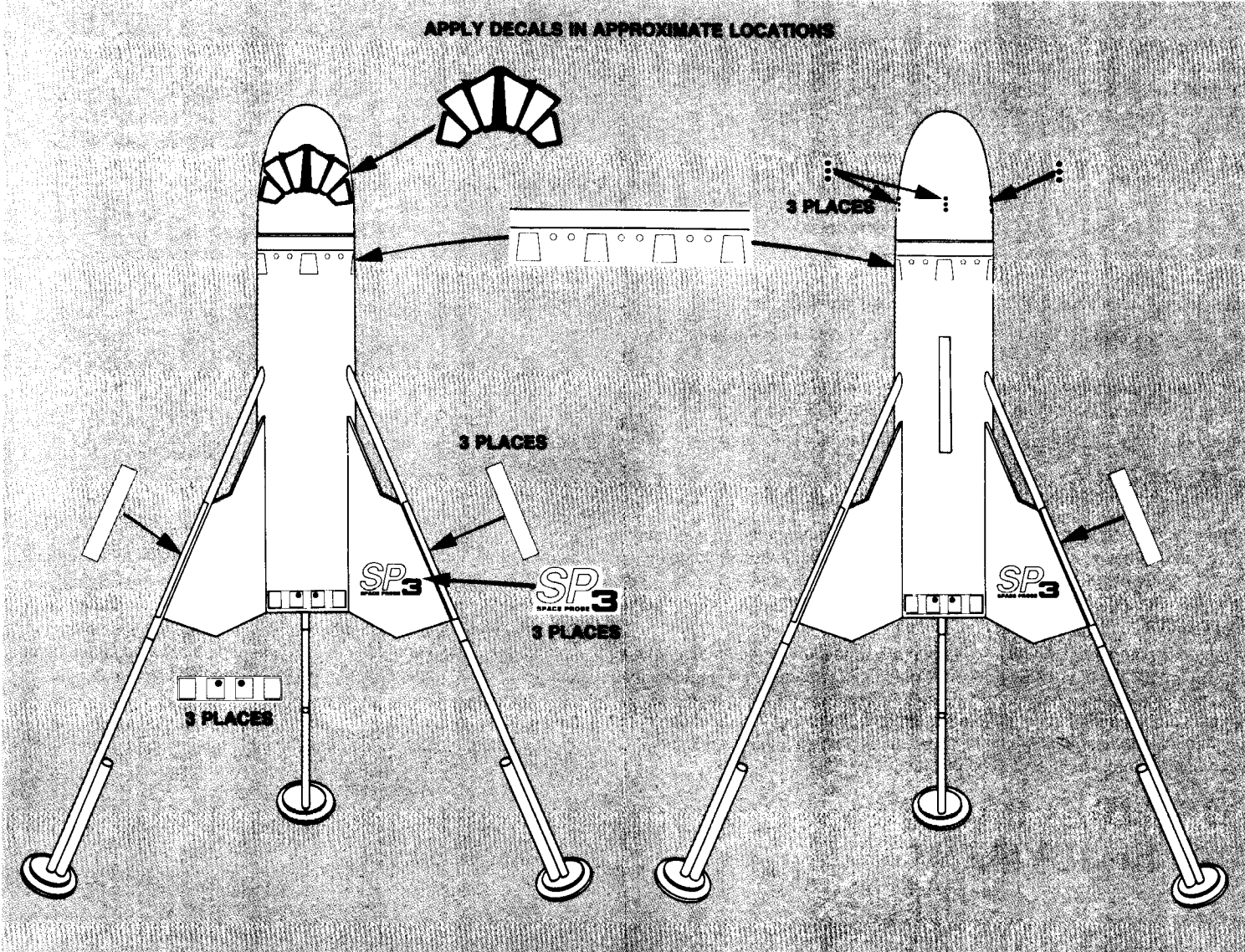
13.

- A. Apply sanding sealer to all wood parts with small brush.
- B. When sealer is dry, lightly sand all sealed surfaces.
- C. Repeat sealing and sanding until wood grain is filled and smooth.
- D. When sanding sealer and glue are completely dry, paint model with gloss red enamel spray paint.
- E. When paint is thoroughly dry, paint lower 4½ inches of legs gloss silver.

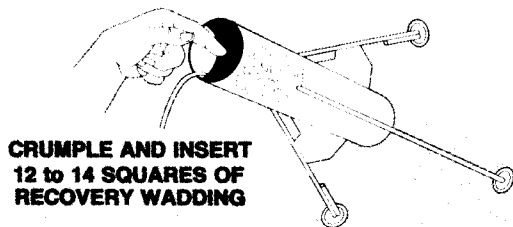


FINISHING YOUR ROCKET

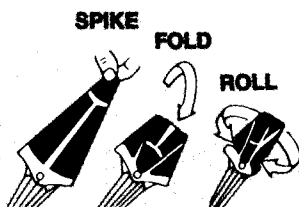
Apply decals in the positions shown. Cut decals apart, trimming excess clear as close to details as possible. Dip one decal in lukewarm water for 20 seconds and hold until it uncurls. Slip decal off backing sheet and onto model. Move decal into exact position. Carefully blot away excess water. Smooth out any wrinkles or air bubbles with a soft cloth.



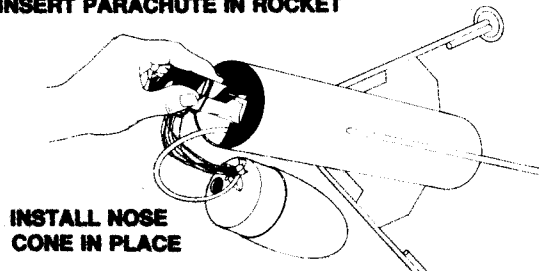
ROCKET PREFLIGHT



**CRUMPLE AND INSERT
12 to 14 SQUARES OF
RECOVERY WADDING**

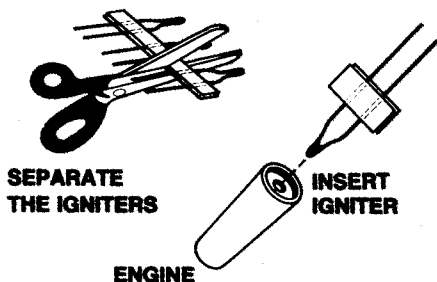


**WRAP LINES LOOSELY AROUND 'CHUTE
INSERT PARACHUTE IN ROCKET**



**INSTALL NOSE
CONE IN PLACE**

PREPARE ENGINE

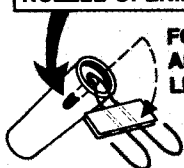


**SEPARATE
THE IGNITERS**

**INSERT
IGNITER**

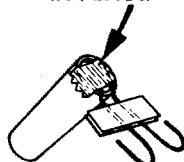
ENGINE

**IGNITER TIP MUST TOUCH
PROPELLANT DEEP INSIDE
NOZZLE OPENING**



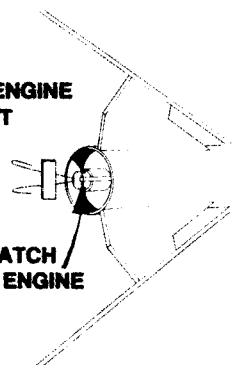
**FOLD OVER
AND BEND
LEADS**

**APPLY AND
FIRMLY PRESS
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: B4-2, B6-2, C5-3, or C6-3

To become familiar with your rocket's flight pattern, use a B4-2 engine for your first flight.

Use only Estes products with this set.

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.

Don't leave parachute packed more than a minute or so before launch during cold weather [colder than 40° Fahrenheit (4° Celsius)].

Parachute may be dusted with talcum powder to avoid sticking.

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.

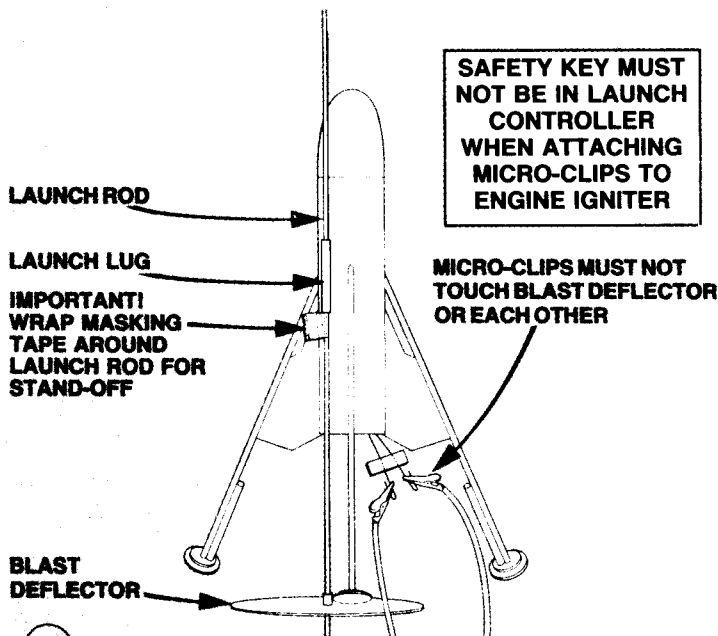
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter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

FOR YOUR SAFETY AND ENJOYMENT

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

*National Association of Rocketry

COUNTDOWN AND LAUNCH

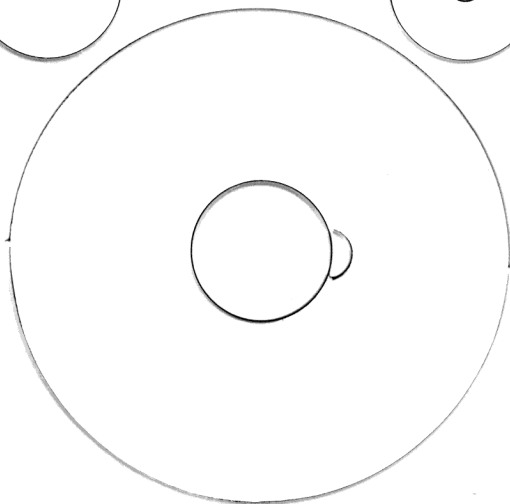
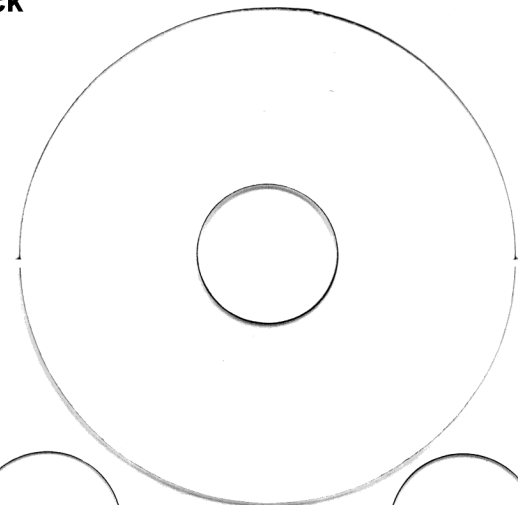
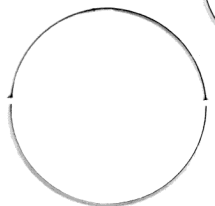
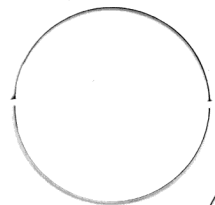
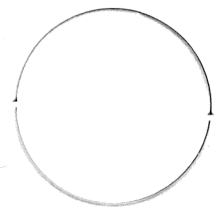


- 10** BE CERTAIN SAFETY KEY IS NOT IN LAUNCH CONTROLLER.
- 9** Remove safety cap and slide launch lug over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.
- 8** Attach micro-clips to the igniter wires. Arrange the clips so they do not touch each other 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

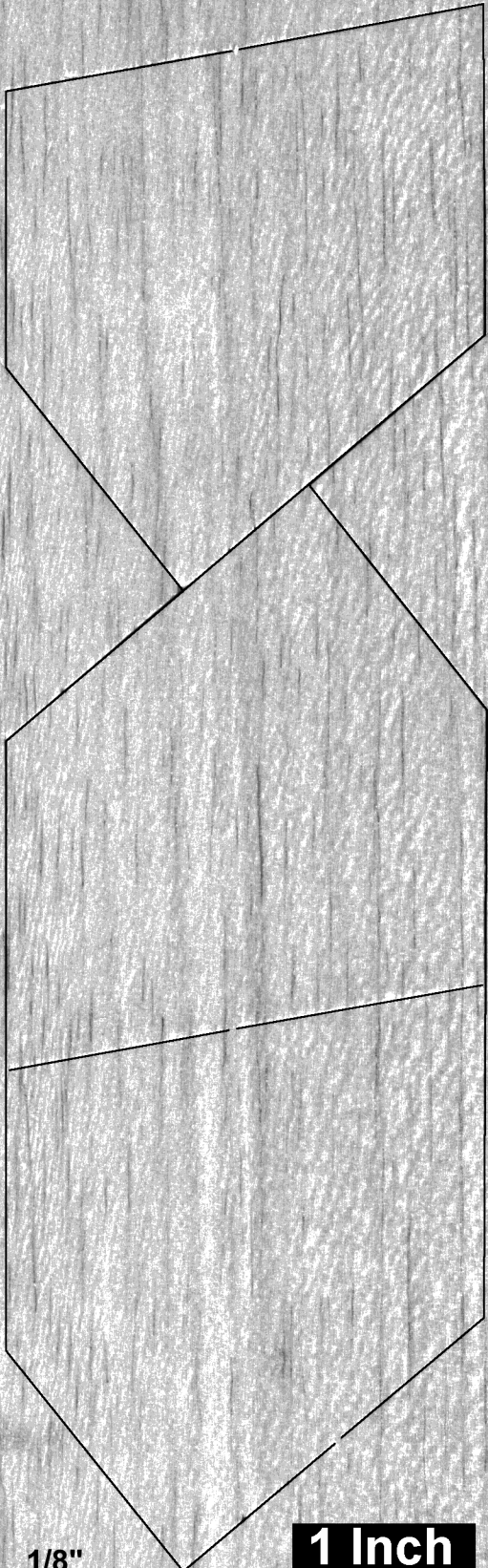
LAUNCH!!! PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES.

**REMOVE SAFETY KEY FROM LAUNCH CONTROLLER.
REPLACE SAFETY KEY AND SAFETY CAP ON LAUNCH ROD.**

.05" (1/20") Thick

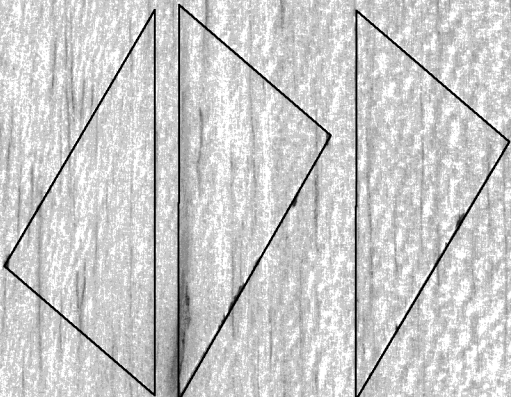


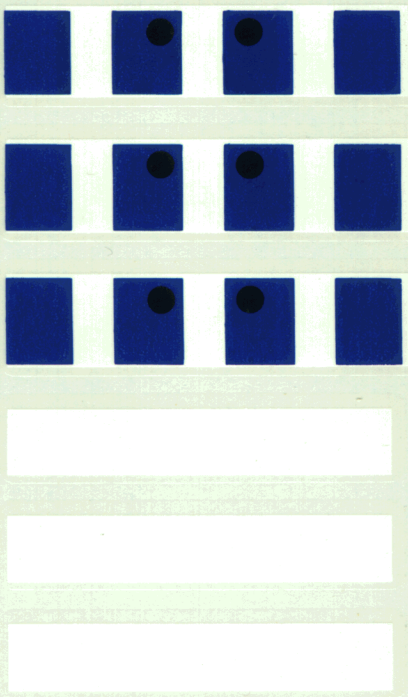
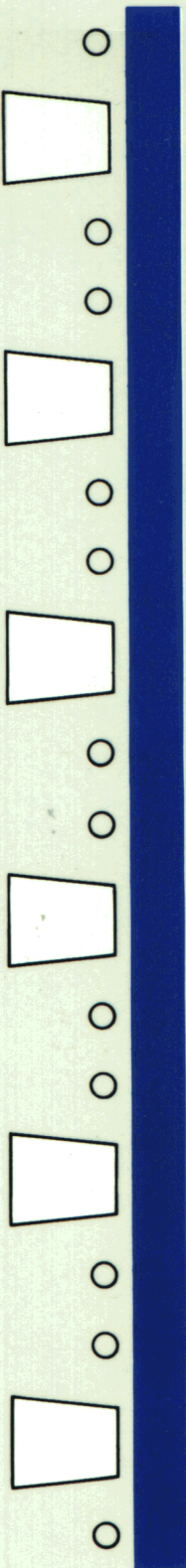
1 Inch



1/8"
Balsa

1 Inch





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SP3 SPACE PROBE
SP3 SPACE PROBE

SP3
 SPACE PROBE



ALIEN SPACE PROBE™



FLYING MODEL ROCKET

SKILL LEVEL 3

EXCITING
FLIGHTS
TO
325
FEET!



LANDING CRAFT USED TO EXPLORE PLANETS, MOONS & ASTEROIDS

- 3/16 Inch Diameter Legs
- 18 Inch Parachute Recovery System
- Quick-Release Engine Mount
- Plastic Nose Cone
- Die-Cut Balsa Fins

Length: 17.75 in. (45.1 cm)

Dia: 2.4 in. (61 mm)

Weight: 3.17 oz. (90.2 g)

Recommended Engines:
B6-2 (Fire Figs., B6-E, C6-E,
or C6-B)

ESSES

ESSES

#2038

