

DUNE™

FLYING MODEL ROCKETRY OUTFIT

SKILL LEVEL 1 - Suggested For Beginners



Featuring Easy-To-Assemble

THE GUILD HEIGHLINER

Flying Model Rocket

PLUS:

- COMPLETE LAUNCH CONTROL SYSTEM WITH FUTURISTIC LAUNCH CONTROLLER AND STURDY LAUNCH PAD
- TWO HIGH PERFORMANCE ROCKET ENGINES, SOLAR IGNITERS AND PARACHUTE RECOVERY WADDING

This kit requires assembly. Glue, paint, finishing supplies, and batteries - Not included.

8 or 12 volt lantern battery required for operation.

Recommended for ages 10 to adult. Adult supervision suggested for those under 12 years of age when flying model rockets.



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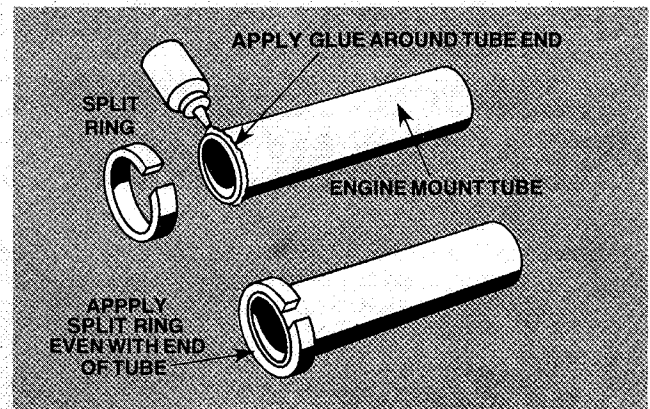
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ROCKET ASSEMBLY

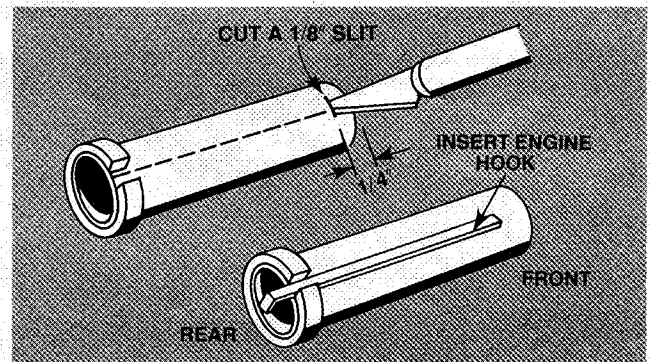
1

- Apply glue around outside of engine mount tube at one end.
- Position split ring over glue so end of the ring is even with end of the tube.
- Press ring snugly around the tube.



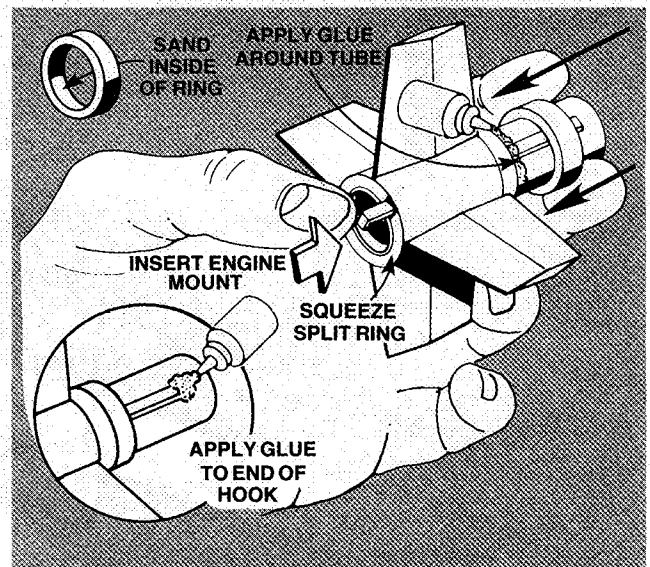
2

- Cut a 1/8" long slit in tube as shown.
- Push one end of engine hook into slit and position so it runs through gap in ring.



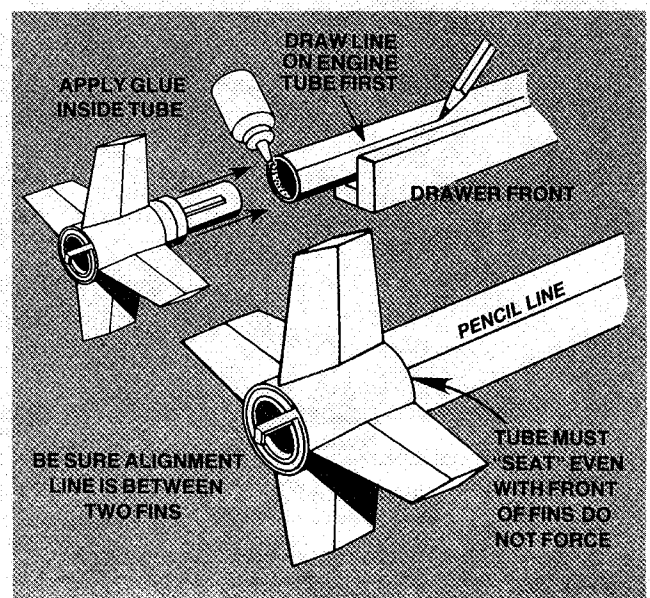
3

- Slide assembly from step 2 into plastic fin unit from rear. The split adapter ring should fit completely into fin unit.
- Sand inside of adapter ring until it slides smoothly over tube and hook.
- Apply glue around engine tube 1/4" ahead of fin unit as shown. Slide ring onto engine tube, over hook, and back tightly against fin unit. Do not pause while installing ring or glue may "grab" with ring in wrong place.
- Apply a drop of glue to front of hook in slit.



4

- Draw a straight line along entire length of the body tube as shown.
- Spread glue around inside of either end of body tube. Glue should cover an area extending 1/2" into tube.
- Line up body tube and fin unit so tube alignment line is between two fins. Insert front of the fin unit into tube end with the glue.
- The body tube should "seat" evenly and tightly against fins on fin unit as shown.



DUNE™ THE GUILD HEIGHLINER

ESTES
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PENROSE, CO 81240 USA



KIT NO. 1438

Skill Level 1

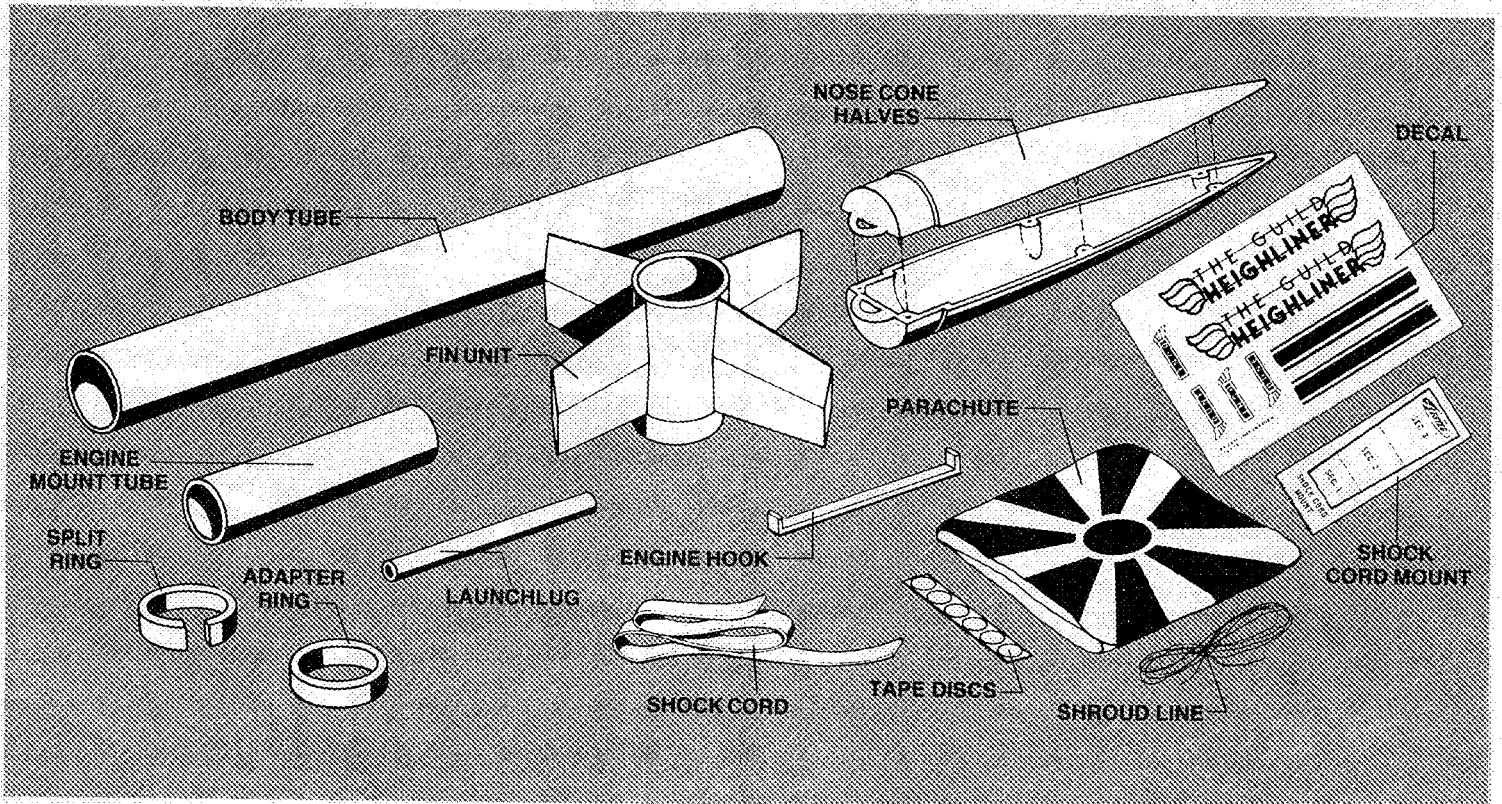
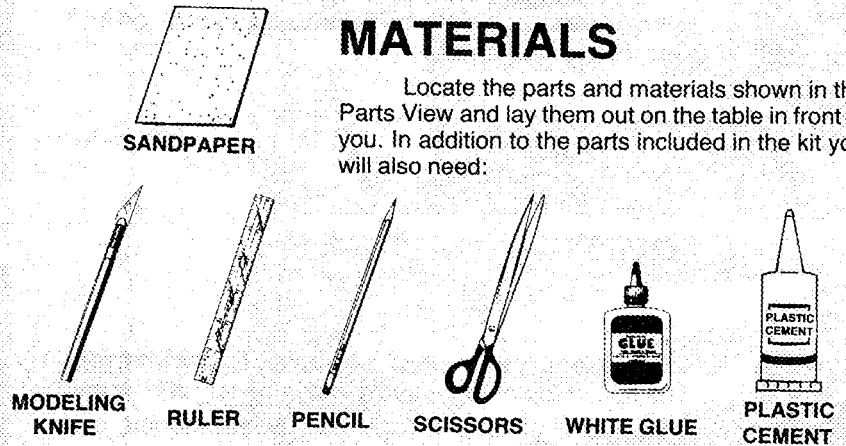
This kit recommended
for Beginning Rocketeers.

ASSEMBLY TIP

Read all instructions before beginning work on your model. Make sure you have all parts and materials. When you are thoroughly familiar with the assembly procedure, begin construction. Check off each step as you complete it. In each step, test-fit the parts together before applying any glue. If some part doesn't fit properly, sand lightly as required for precision assembly.

MATERIALS

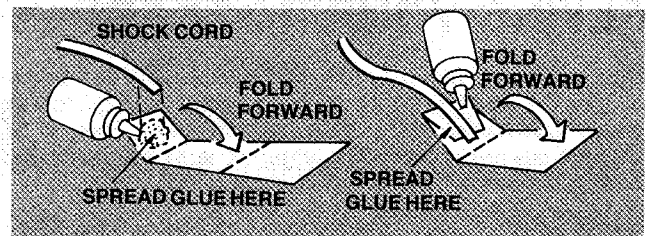
Locate the parts and materials shown in the Parts View and lay them out on the table in front of you. In addition to the parts included in the kit you will also need:



Note: Additional items required to fly the Guild Heighliner are: engines, launch control system, masking tape, and flame resistant wadding. Recommended engine sizes are: A8-3 (First Flight), A8-5, B4-4, B6-4, B8-5, C6-5 and C6-7.

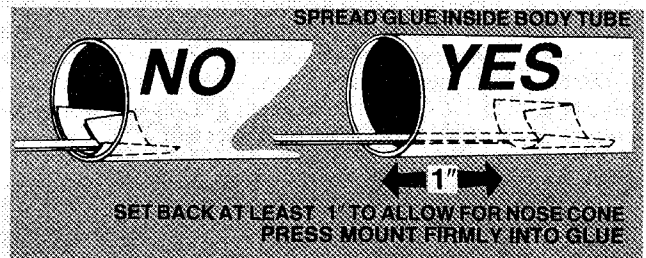
5

- A. Cut out the shock cord mount.
- 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.



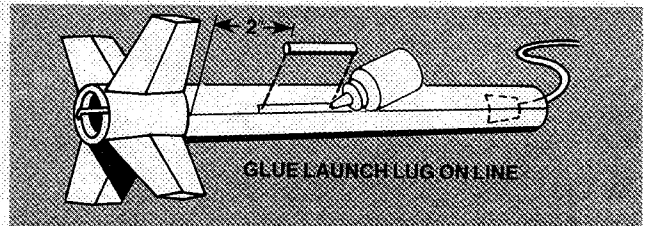
6

- A. Apply glue to inside of front of body tube to cover an area 1" to 2" from end. The glued area should be same size as shock cord mount.
- B. Press mount firmly into glue as shown.
- C. Hold until the glue sets.



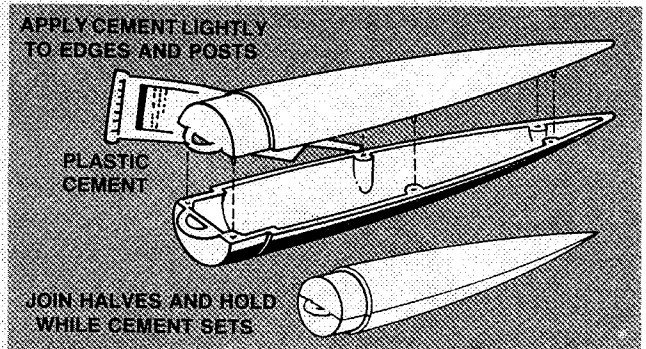
7

- A. Glue launch lug to body tube 2" from front of fin unit.
- B. Sight along tube to be sure launch lug is straight on body.
- C. After glue is dry, erase pencil line still showing on tube.



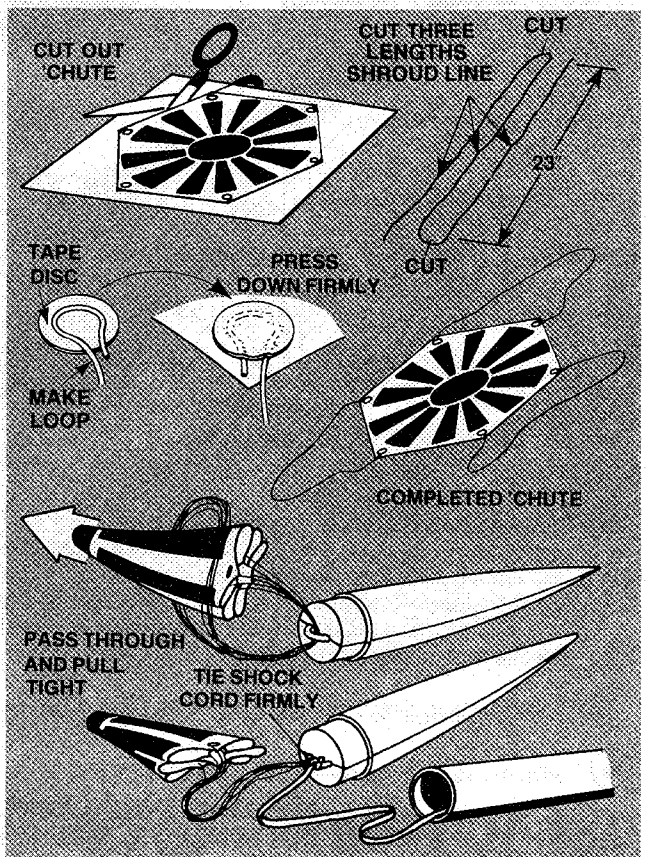
8

- A. Cement nose cone halves together using plastic model cement. Make sure alignment pins on inside of cone fit completely into their matching holes.



9

- A. Cut out parachute on edge lines.
- B. Cut three 23" lengths of shroud line.
- C. Attach line ends to top of parachute with tape discs as shown. Form a small loop inside tape disc on sticky side. Place tape disc on top of parachute.
- D. Firmly press tape disc into place until both tape disc and parachute material are molded around shroud line loop. Repeat for other shroud line ends and tape discs.
- E. Pass shroud line loops through loop on nose cone. Pass parachute through loop ends and pull lines tight against the nose cone.
- F. Tie free end of shock cord to nose cone loop.



FINISHING YOUR ROCKET

To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. 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.

FLYING YOUR ROCKET

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

Wind is the biggest problem for model rocketeers. If you want to get your model back, launch in light wind or, when possible, in calm weather. Never launch near a thunderstorm. Remember, too, that plastic parachutes become stiff in cold weather and will not open easily. If launching below 40°Fahrenheit (about 4° Celsius), use extra care in preparing your model rocket recovery system.

LAUNCHING COMPONENTS

Be sure to follow the HIAA-NAR* Model Rocket Safety Code when carrying out your model rocket activities.

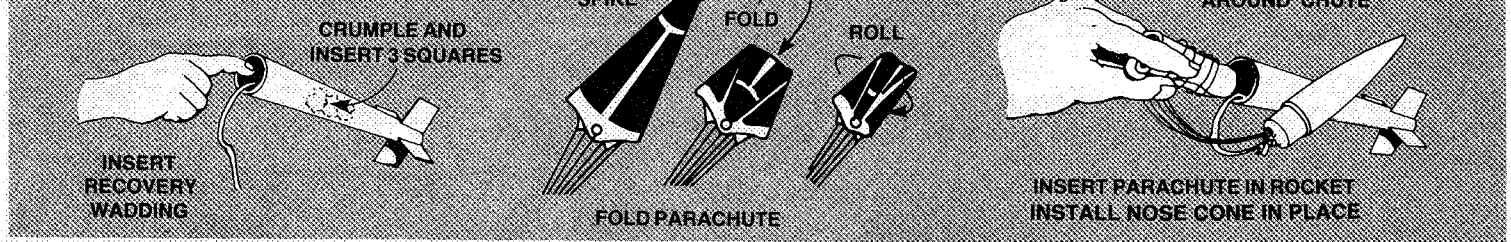
*HIAA—Hobby Industry Association of America
*NAR—National Association of Rocketry

To launch your rocket you will need the following items:

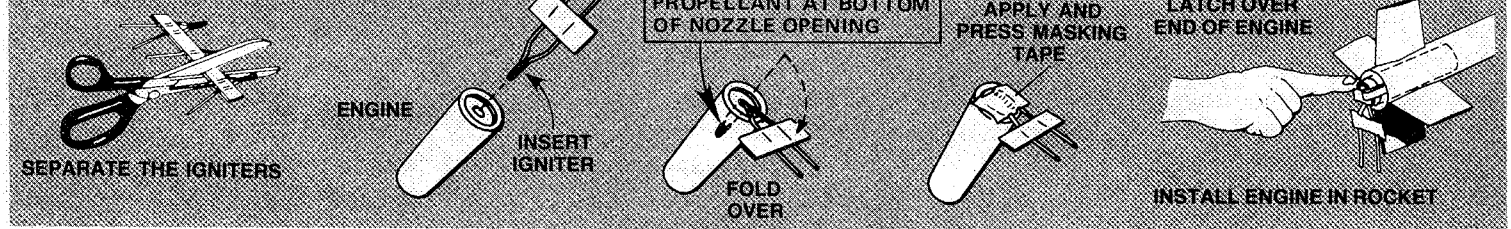
- An Estes model rocket launching system
- Parachute recovery wadding (Estes Cat. No. 2274)
- Recommended Engines: A8-3, (1st flight), A8-5, B4-4, B6-4, B8-5, C6-5 and C6-7.

Use an A8-3 engine for your first flight.

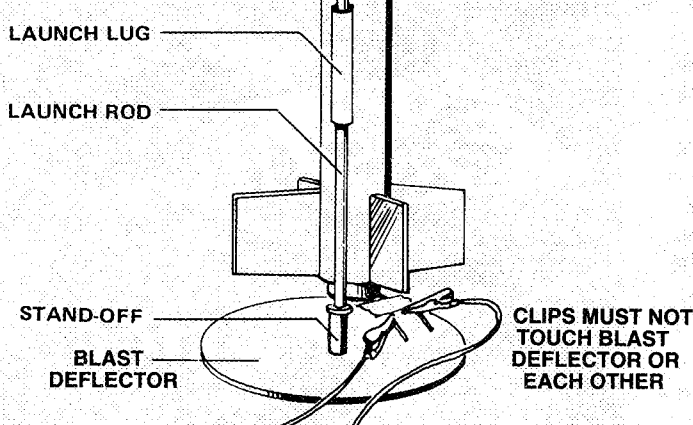
ROCKET PREFLIGHT



PREPARE ENGINE

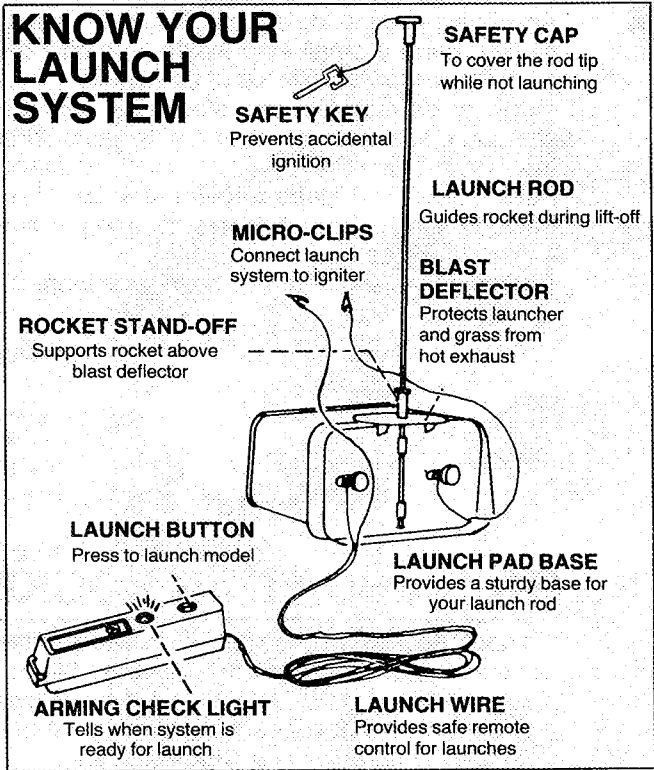


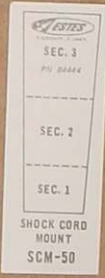
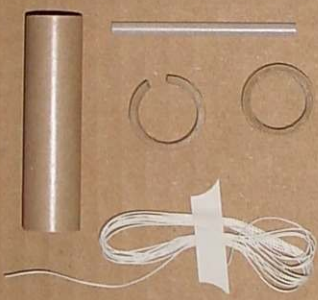
LAUNCH PROCEDURE



Failure of the rocket engine to function properly is nearly always caused by a failure to install the igniter correctly. This failure permits the igniter to heat and burn into two pieces without igniting the engine.

- ① Disarm the launch panel—REMOVE SAFETY KEY!
- ② Slide the launch rod through rocket launch lug and place rocket on launch pad. Make sure the rocket slides freely on the launch rod. Clean the micro-clips and attach them 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.
- ③ Move back from your rocket as far as launch wire will permit.
- ④ Arm the launch panel—INSERT SAFETY KEY!
- ⑤ **LAUNCH!!** PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES





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