



# hercules

STELLAR

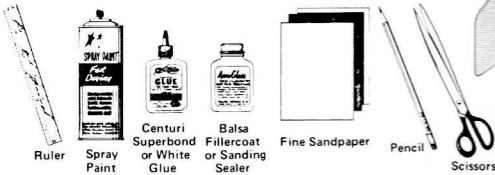
STRATO-DEMONSTRATION ROCKET!

Catalog No. KD-13

The HERCULES is an impressive sport model with single-engine reliability! It's large size causes it to lift off more slowly and grandly than standard smaller rockets! It's size and large colorful chute make it an ideal model for demonstrations! The simulated pull-away lugs and engine coolant vanes add an unusual bit of detail to this easy-to-build bird! Follow instructions and you'll have countless successful flights! Use only B4-4 engines for first test flights.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems! Always use the recommended engines and recovery wadding. Check with local authorities for possible restrictions before launching model rockets in your community.

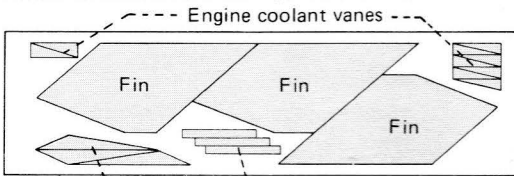
**TOOLS:** In addition to the parts supplied, you will need the following tools to assemble and finish this kit. **DO NOT** use model airplane glue for building flying model rockets.



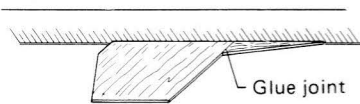
## ASSEMBLY INSTRUCTIONS

READ BEFORE STARTING ASSEMBLY!

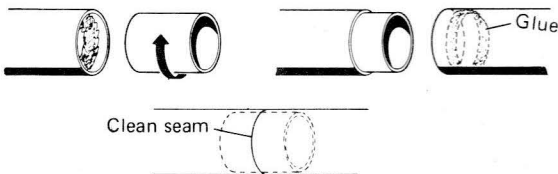
- 1 Carefully push the die-cut pieces from their sheet. Start at one point on each fin and work gently around.



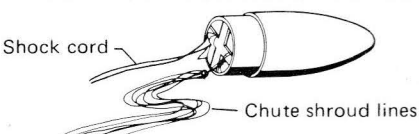
- 2 Glue each leading section to its fin, along a straight edge. If necessary, sand joint edges to obtain a perfect fit. Wax paper is ideal for this purpose as it protects table tops and glued pieces don't stick to wax paper.



- 3 Run a generous bead of glue around the inside end of one body tube. Insert the coupler about halfway, with a turning motion. Repeat with the other body tube to complete joining tubes.

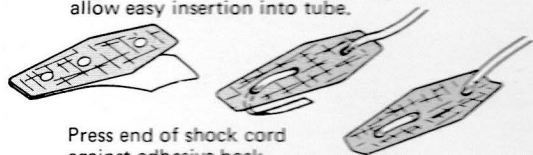


- 4 Carefully scrape or sand plastic flashing, if any, from the nose cone. Tie the assembled chute's shroud lines and one end of the shock cord firmly around crossbars in the nose cone base.



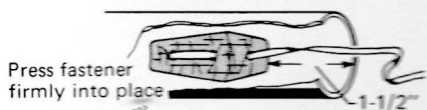
- 5** Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary.

Slightly crease the fastener lengthwise to allow easy insertion into tube.



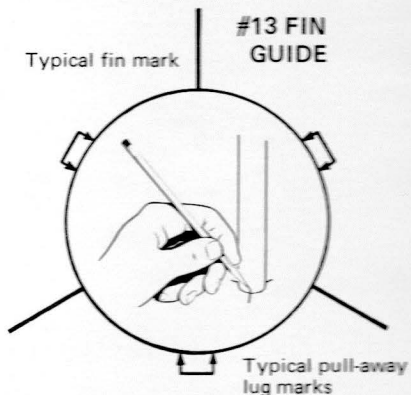
Press end of shock cord against adhesive back of fastener

- 6** Insert the fastener 1-1/2" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. **NOTE:** All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



Press fastener firmly into place

- 7** Stand body upright on fin guide and mark all positions.

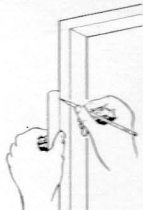


Typical fin mark

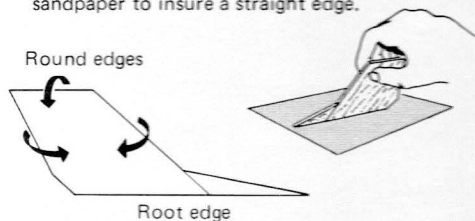
#13 FIN GUIDE

Typical pull-away lug marks

- 8** Find a convenient channel or groove, such as a door jamb, partially open drawer, or molding. Extend the marks about 6" along the tube.



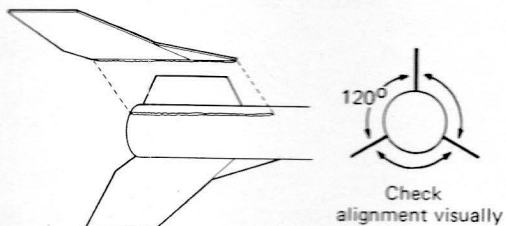
- 9** With fine sandpaper, round all edges except the root edge. Run the root edge over sandpaper to insure a straight edge.



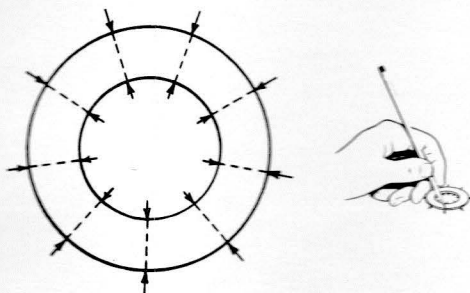
Round edges

Root edge

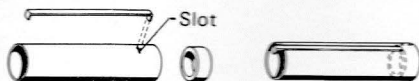
- 10** Apply a bead of glue to one fin's root edge and press onto body along approximate drawn line. Remove, allow a minute to become tacky, and re-apply. Repeat with remaining fins. Check alignment visually, and stand the rocket upside down to dry.



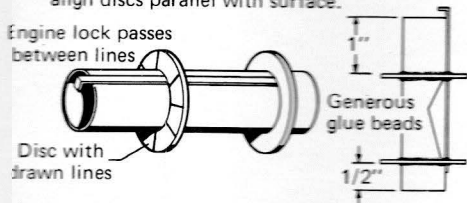
- 11** Lay one centering disc over the pattern below. Connect each pair of arrows with a pencil line, to make coolant vane guide lines.



- 12** Place one end of the engine lock in the pre-cut slot of the 3" engine tube. Apply a bead of glue around the inside of that end. Insert the thrust ring until it butts against the engine lock.



- 13** Slide the two paper centering discs exactly to the positions shown. Apply a bead of glue on each side of each ring-tube joint, all around. Stand assembly on flat surface and align discs parallel with surface.

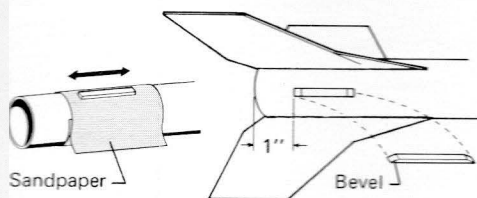


Engine lock passes between lines

Disc with drawn lines

Generous glue beads

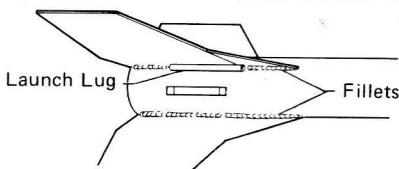
- 14** Run each pull-way lug over fine sandpaper wrapped around the rocket, to obtain a curved side. Sand each end to a beveled angle and glue in place along drawn guide lines.



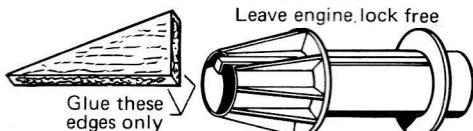
Sandpaper

Bevel

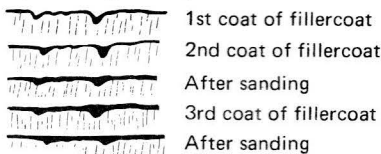
**15** Apply beads of glue along all fin and pull-way lug joints. Smooth into neat reinforcing fillets with your finger. Don't allow glue to run! Check fin alignment again. Glue launch lug against one fin.



**16** Apply glue to the coolant vanes as shown. Position on the engine mount against the lines drawn on the disc. Repeat with the remaining vanes, taking care not to cover the engine lock. Align vanes neatly and set aside to dry. (Will not be glued in place until the entire rocket is painted.)



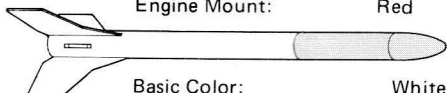
**17** To provide a smooth, realistic finish: Coat all balsa surfaces with balsa fillercoat or sanding sealer. Allow to dry thoroughly and sand tightly. Repeat the filling and sanding steps until a smooth surface, completely free of grainline, is obtained.



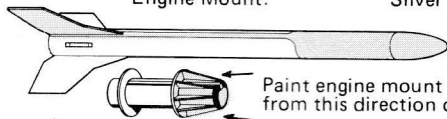
**18** When painting plastic parts, never use dope or lacquer! First, spray with an enamel primer. Spray painting your model with a fast-drying enamel will produce the best results . . . IF IT IS DONE PROPERLY!!! DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first and then a finish coat. Let each coat dry before applying the next.

#### SUGGESTED COLOR SCHEMES:

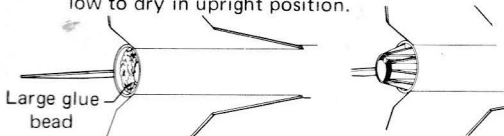
**EASY:** Basic Color: White  
Upper Tube and Cone: Red  
Engine Mount: Red



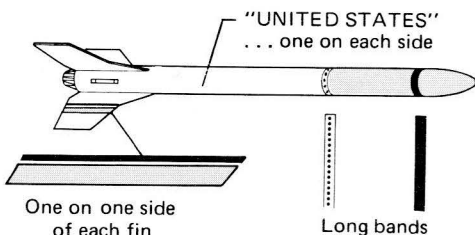
**CHALLENGING:** Basic Color: White  
Upper section and one fin: Bright Blue  
Engine Mount: Silver



**19** Lightly sand edges of engine mount centering discs to remove paint. Apply beads of glue around discs and inside body tube. Be generous, so assembly will withstand engine thrusting. Insert with a smooth, turning motion, recessing unit slightly. Allow to dry in upright position.



**20** Apply the decals according to the instructions printed on the decal backing paper. Cut apart and apply one at a time. Allow rocket to dry, upright, at least one hour before flying.



#### ENGINES:

Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Stellar engines.

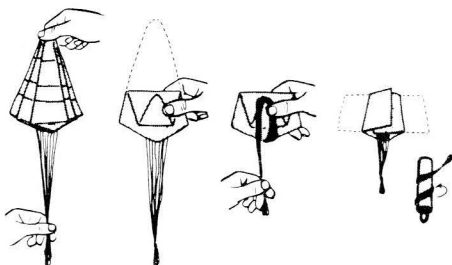
The HERCULES can be launched with the following engines:

B4-4 MEDIUM ALTITUDE – for first test flights and smaller launch areas.

C6-5 HIGH ALTITUDE – for high flights and larger launch areas.

#### FLIGHT PREPARATION

1. Inspect shock cord and fastener for firm bond.
2. Insert Flameproof Parachute Wadding according to its directions.
3. Tuck in shock cord.
4. Roll chute tightly as shown, and insert.
5. Socket nose cone in place.



Carefully prepare and check all parts of your rocket before each flight.

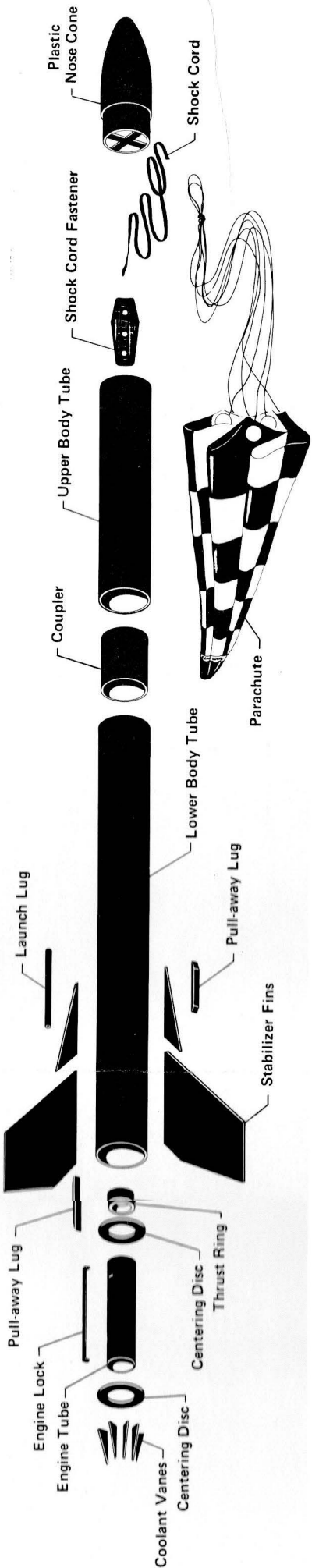
Launch the HERCULES from any standard model rocket launcher having a 1/8" diameter x 36" long steel launch rod.

Do not leave the rocket sitting in the sun for long periods as this may soften the adhesives.

Referring to the specific instructions which accompany Stellar launchers and firing panels, mount the rocket on the launcher and prepare for ignition. Avoid eye injury by capping the exposed tip of the launch rod when not actually launching! Follow instructions and the Safety Code and have many happy hours with Model Rocketry!

Expanded Engine





# hercules

STRATO-DEMONSTRATION ROCKET!

Catalog No. KD-13

STELLAR

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This rocket is designed to be launched only from standard remote-controlled electrical launch systems! Always use the recommended engines and recovery wadding. Check with local authorities for possible restrictions before launching model rockets in your community.

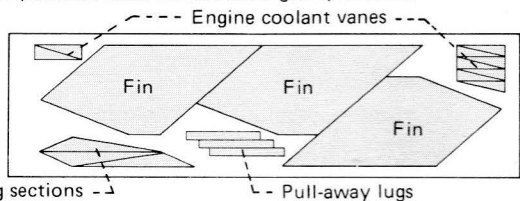
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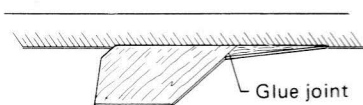
## ASSEMBLY INSTRUCTIONS

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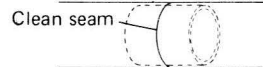
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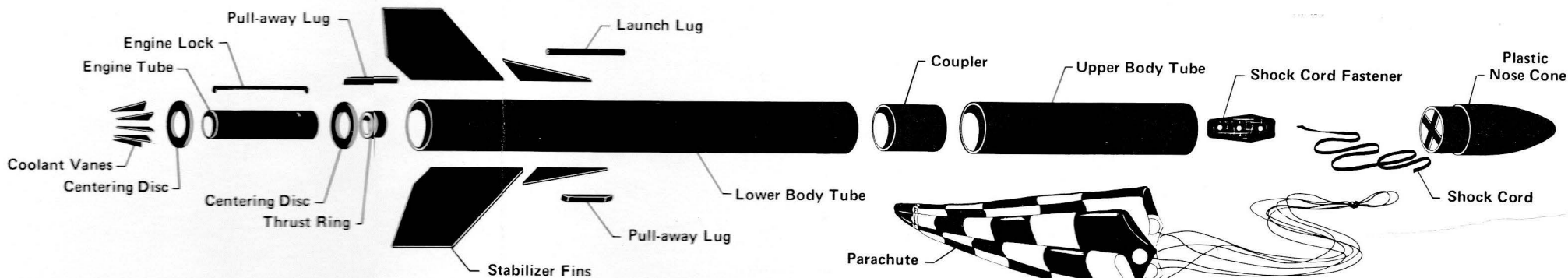
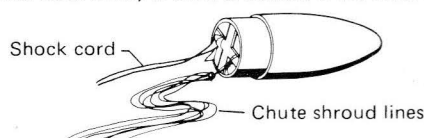
**2** Glue each leading section to its fin, along a straight edge. If necessary, sand joint edges to obtain a perfect fit. Wax paper is ideal for this purpose as it protects table tops and glued pieces don't stick to wax paper.



**3** Run a generous bead of glue around the inside end of one body tube. Insert the coupler about halfway, with a turning motion. Repeat with the other body tube to complete joining tubes.



**4** Carefully scrape or sand plastic flashing, if any, from the nose cone. Tie the assembled chute's shroud lines and one end of the shock cord firmly around crossbars in the nose cone base.

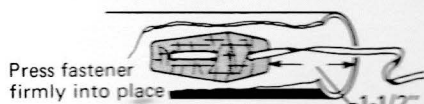


**5** Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary. Slightly crease the fastener lengthwise to allow easy insertion into tube.

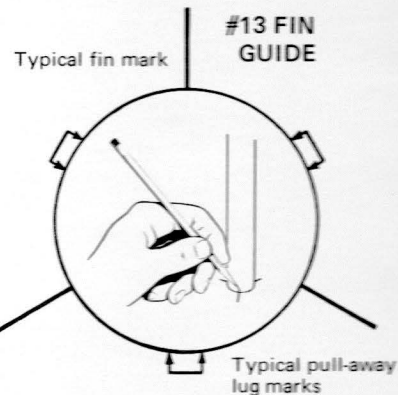


Press end of shock cord against adhesive back of fastener

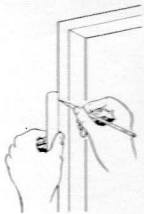
**6** Insert the fastener 1-1/2" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. NOTE: All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



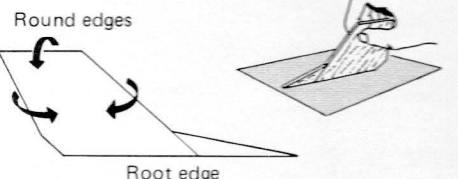
**7** Stand body upright on fin guide and mark all positions.



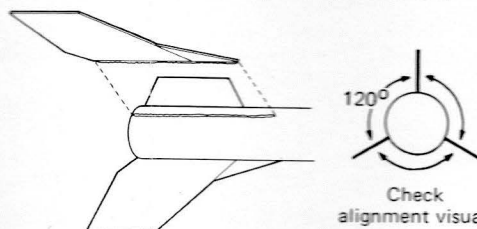
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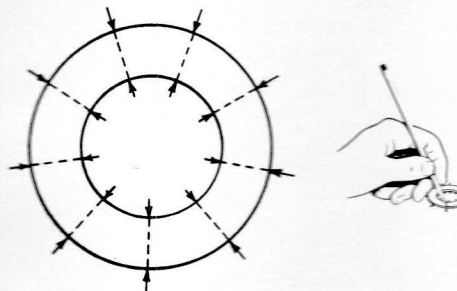


**10** Apply a bead of glue to one fin's root edge and press onto body along approximate drawn line. Remove, allow a minute to become tacky, and re-apply. Repeat with remaining fins. Check alignment visually, and stand the rocket upside down to dry.

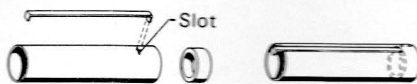


Check alignment visually

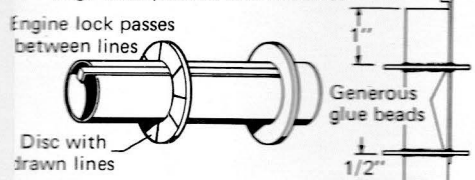
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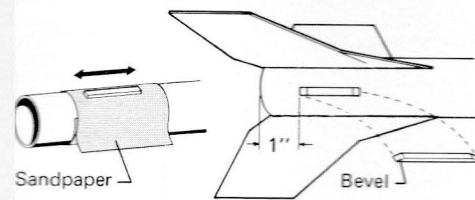
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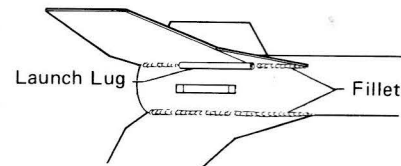
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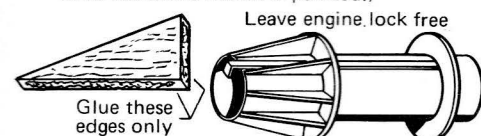
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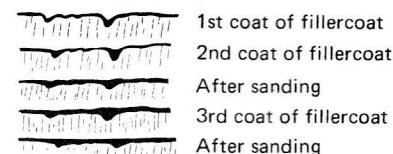
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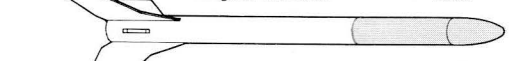
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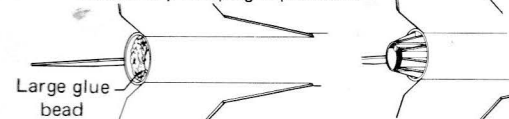


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Engine Mount: Silver

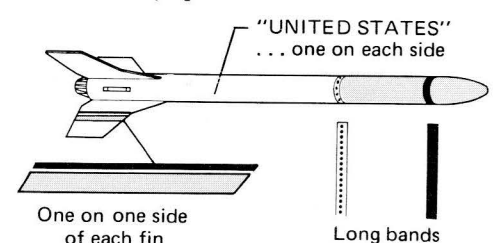


Paint engine mount from this direction only.

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**20** Apply the decals according to the instructions printed on the decal backing paper. Cut apart and apply one at a time. Allow rocket to dry, upright, at least one hour before flying.



### ENGINES:

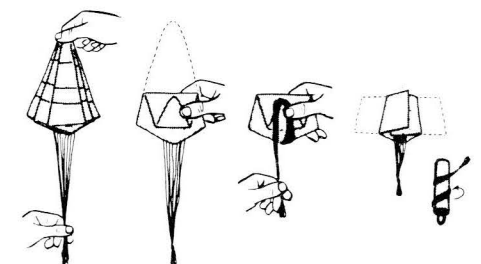
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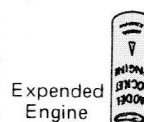


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INCHES

METRIC



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CPA  
REVIEW**

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M-375

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CPA  
REVIEW**

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INCHES  
METRIC

**UNITED STATES  
UNITED STATES**



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M 325





# hercules

FLYING MODEL ROCKET KIT

HOW DOES A  
FLYING MODEL  
ROCKET WORK?

**4 APOGEE**  
Rocket reaches altitudes up to 1000 feet and starts to turn over and dive.

**3 BURN-OUT**  
Propellant in engine burns out. Delay charge allows rocket to coast upward to apogee.

**5 PARACHUTE EJECTION**  
Ejection charge ignites, pushing parachute out of the rocket.

**6 RECOVERY**  
Parachute opens and rocket slowly descends to earth.

**2 LIFT-OFF**  
Engine thrusts rocket skyward.

**1 IGNITION**  
Engine is ignited electrically.

(Launching system available separately or in Starter Outfit.)

Easy-to-assemble!



Colorful decals!



SPECIFICATIONS

Wt.: 2.0 oz.  
Length: 24.1"  
Dia.: 1.34"



RECOMMENDED ENGINES

B4-4 C6-5

Use B engines for first test flights!

Mfg. by: Centuri Engineering Company, P.O. Box 1988, Phoenix, Arizona 85001

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Centuri

# FLYING MODEL ROCKET KIT

# hercules

Can be launched many times!  
Realistic powerful lift-offs!

Power-ejected  
parachute returns  
rocket gently to earth!

Stands over  
2 feet tall!

STRATO-  
DEMONSTRATION ROCKET!

Impressive demonstration model!  
High-altitude flights to 1000-feet!

STELLAR  
FLYING ROCKETS

LAUNCHER NOT INCLUDED

RECOMMENDED FOR AGES 10 TO ADULT

Ready for another lift-off!