

HORNET

FLYING MODEL ROCKET

*Easy to
Assemble*

12.5" Long

Altitudes to 1000'

Specifications:

Length—12.5"

Body Dia.—0.718"

Takeoff weight without
engine: 7 oz. (20 g)*

Recommended F.S.I. Engines:

**A6-5 B6-5 C6-7

Skill Level 1

This kit requires assembly. Launch systems, engines, glue, and finishing supplies are not included.

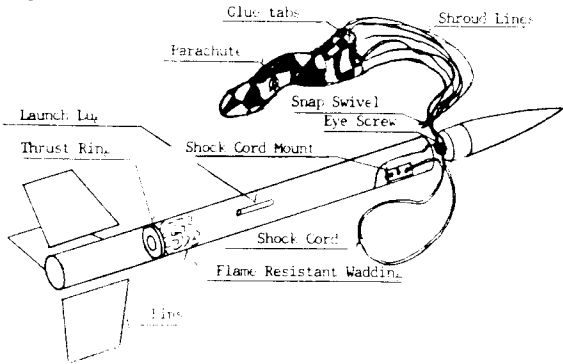
Adult supervision recommended



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HORNET

The Hornet is designed exclusively for 18mm engines. Flights up to a 1000' can be reached.

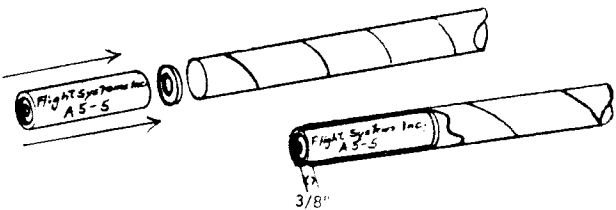


PARTS LIST:

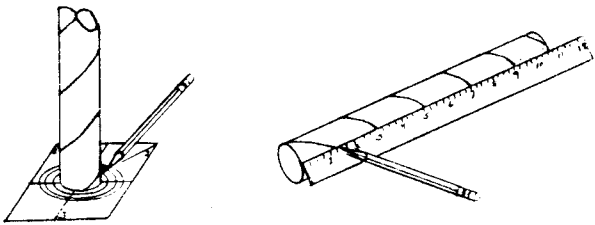
1 Body Tube	1 Shock Cord
1 Nose Cone	1 Shock Anchor
3 Fins	1 Eye Screw
1 Launch Lug	1 Snap Swivel
1 Thrust Ring	1 Fin Guide
1 Parachute Tabs	1 Flame Resistant Wadding
1 Parachute	1 Decal Sheet

ASSEMBLY INSTRUCTIONS:

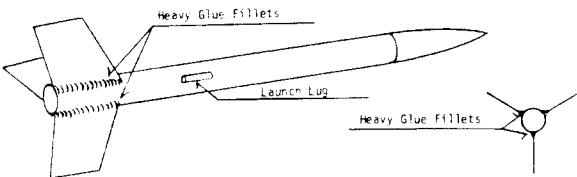
Important; Read entire instructions before starting assembly. Check to be sure all parts are present. Familiarize yourself with the parts. Test fit the parts together before applying any glue. If a part doesn't fit properly, sand or build up for a precision fit. Please read each step before starting that step. Check off each step as it is completed.



1. Install thrust ring. Place a heavy band of white glue inside small diameter body tube. Insert the thrust ring by using an F.S.I. 18mm engine to push the ring forward until the engine projects 3/8" outside the body tube. Extract engine and let dry. It is important that thrust ring is pushed forward with a rapid smooth motion and that the engine is withdrawn immediately to prevent the engine from sticking to the body tube.

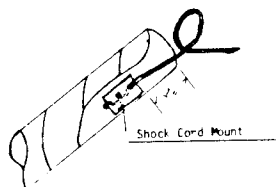
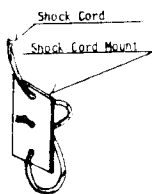


2. Using fin alignment guide mark lines for fin alignment as shown. Use 3 marks for 3 fin models.

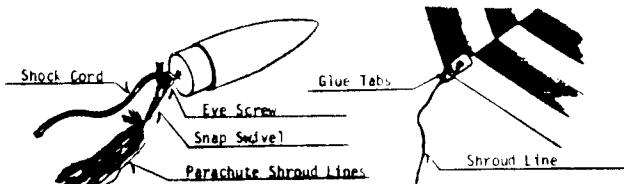


3. Lightly sand and round the edges of all fins. DO NOT sand root (red colored edge) of fins. Attach red edge of the fins to the body tube. Be sure the fins stick straight out from the body tube and are carefully aligned with the lines marked on the body tube. Apply a line of glue to launch lug and place it centered between two fins as shown. Stand the assembly on its forward end and allow to dry. When dry, run 2 or 3 heavy glue fillets on both sides of the fins for added strength.

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4. Install shock cord in shock cord mount as shown. Spread a heavy layer of glue over the side opposite the shock cord knot. Curve shock cord mount and insert into the nose cone end of the body tube and firmly press in place. Drawing shows the proper position in the body tube.

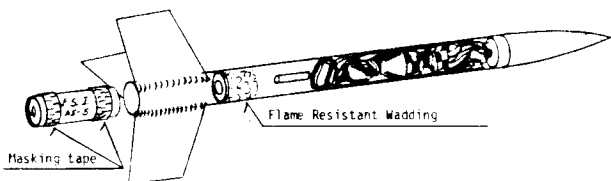


5. Put eye screw in center of nose cone. Attach the shock cord. The parachute is marked in inches. Cut with scissors to the desired size. For the Hornet, cut 12". Lay the parachute on a flat surface and attach shroud lines as shown. Punch a hole through the glue tab and tie the shroud lines to the parachute. Attach snap swivel.

6. The rocket is now ready to paint and add decals. It is recommended that a light coat of paint be sprayed on and let dry. Add a couple more mist coats lightly sanding between them. Then apply a wet coat (gloss just appears) and set aside to dry. After model is completely dry, apply decals. Cut one decal at a time from the sheet and submerge in lukewarm water until decal will slide off of the paper (usually about 20 seconds). Gently slide decal onto rocket and carefully smooth out any wrinkles.

FLIGHT PREPARATION

1. Install flameproof wadding as shown in cutaway view of rocket.
2. Fold and install parachute. It is a good idea to dust parachute with ordinary talcum powder before each flight.
3. Install engine using Friction Fit. Several wraps of masking tape are placed around the engine as shown to hold the engine in place.
4. Insert F.S.I. engine until contact is made with the thrust ring. Be sure to use enough masking tape to assure a snug fit in the body tube. It should require a firm push. If the engine doesn't fit firmly it will be ejected instead of the parachute and the rocket will free fall.
5. Place the rocket on the launcher, insert the F.S.I. ignitor and attach the firing clips as shown.
6. Go back to launch control and clear the area. Arm the launch control by inserting the phone jack attached to the firing line.
7. Give count down 5-4-3-2-1, ignition!!



Be sure to follow the #HIA-NAR Model Rocket Safety code when carrying out your model rocket activities.

#HIA-Hobby Industry of America
NAR-National Association of Rockets

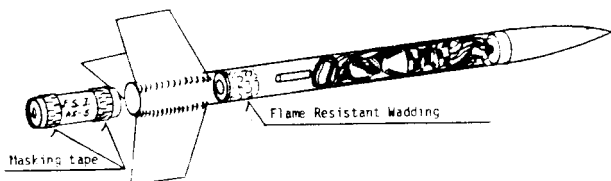
FIN PLACEMENT GUIDE

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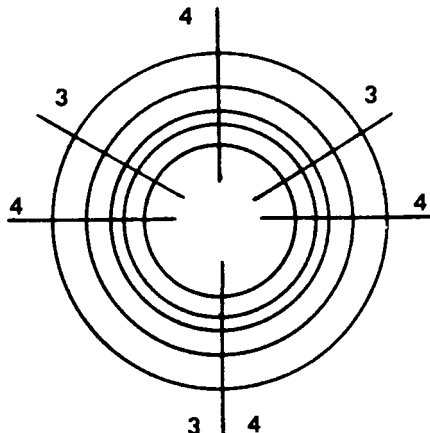
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FIN PLACEMENT GUIDE



1. Center end of tube in the proper circle.
2. Mark (4) lines for four fin models and (3) lines for three fin models.





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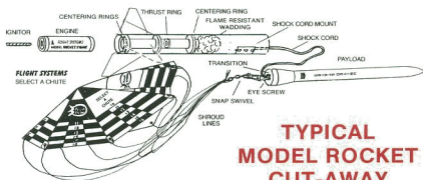
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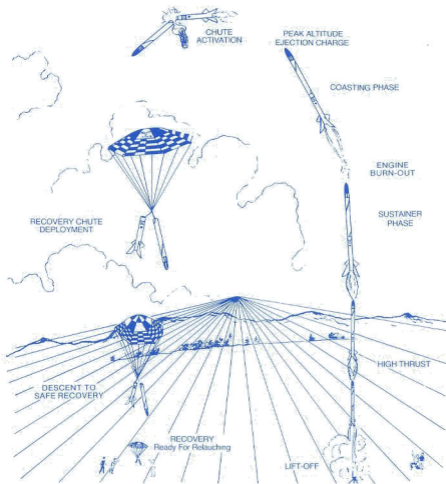
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FLIGHT SYSTEMS, INC.

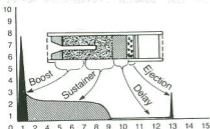
HIGH PERFORMANCE FLYING MODEL ROCKETS



Flight Sequence – Lift-Off, High Thrust and Recovery



MODEL ROCKET ENGINE TIME VERSUS THRUST CURVE



MODEL ROCKET KIT SKILL LEVEL

The skill level numbers given with each kit description recommend the skills and experience necessary to successfully build the rocket kit.

SKILL LEVEL NO.	DESCRIPTION	
1	Very Simple	
2	Fairly Easy	
3	Average	
4	Challenging	
5	Extremely Challenging	



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