



EstesRockets.com

# SPACE CORPS VESTA INTRUDER™

7312



## MODEL ROCKET INSTRUCTIONS

### KEEP FOR FUTURE REFERENCE

**IMPORTANT:** Please record date found on decal and keep for future reference. \_\_\_\_\_

**READ ALL INSTRUCTIONS.** Make sure you have all parts and supplies. Test fit all parts before applying glue.

### SUPPLIES



SCISSORS



PENCIL



RULER



FINE SANDPAPER



YELLOW GLUE



WAX PAPER



HOBBY KNIFE



MASKING TAPE



PRIMER (GRAY)



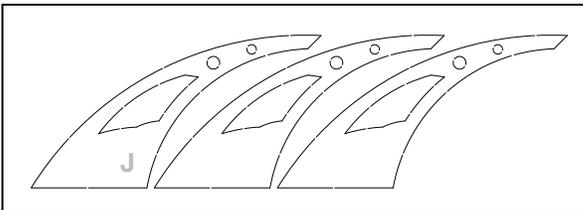
CLEAR COAT (OPTIONAL)



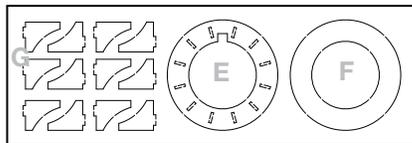
PAINT (GRAY, BLACK)



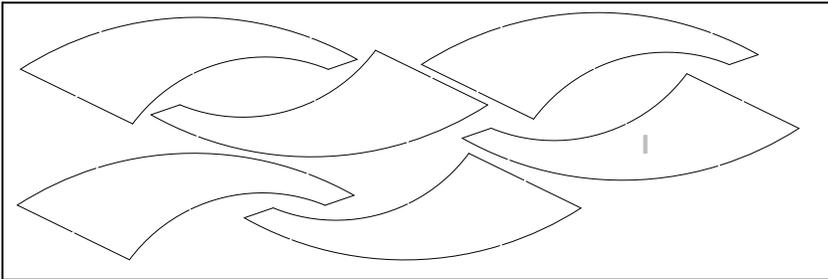
SAND BLOCK



**J 090064-7312 X4**  
Laser cut index stock



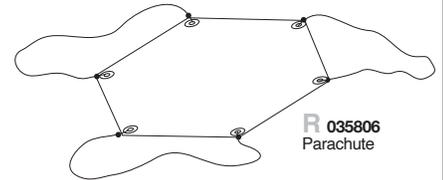
**E/F/G 090052-7312**  
Laser cut card stock



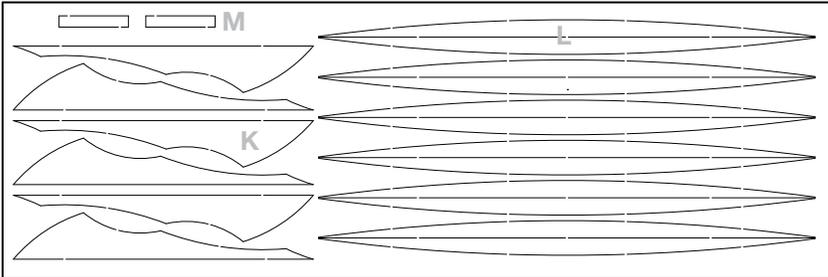
**I 090051A-7312**  
Laser cut balsa



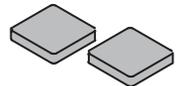
**O 038363**  
Shock cord



**R 035806**  
Parachute



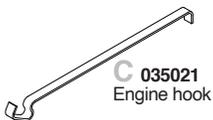
**K/L/M 090051B-7312**  
Laser cut balsa



**Q 085705**  
Clay



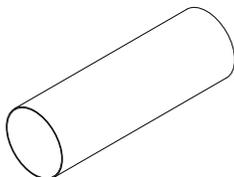
**N 038166**  
Launch lug



**C 035021**  
Engine hook



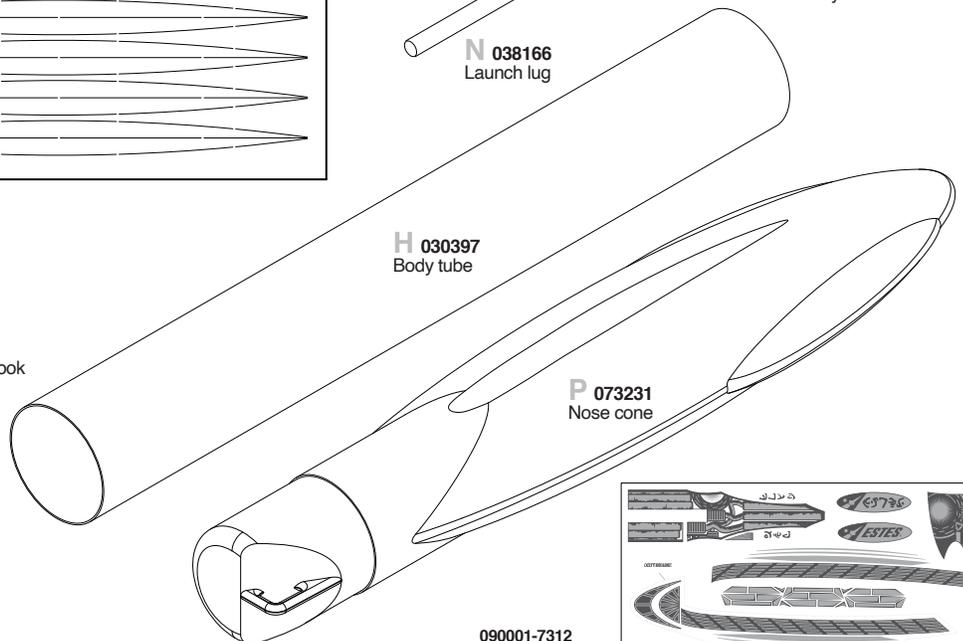
**D 030480**  
Black engine hook retainer ring



**A 031305**  
Engine mount tube

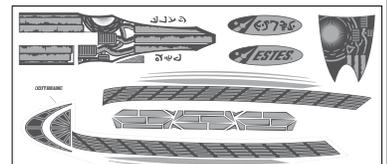


**B 030164-2**  
Green engine block



**H 030397**  
Body tube

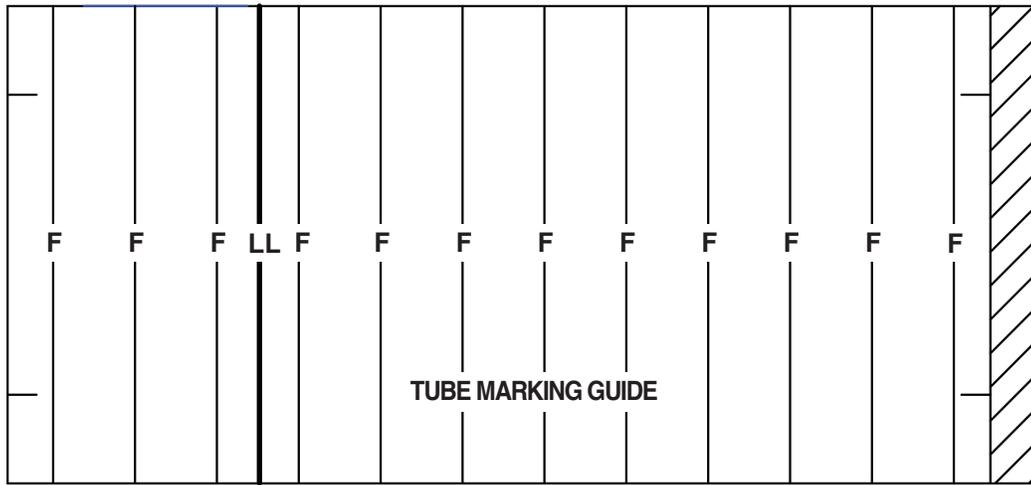
**P 073231**  
Nose cone



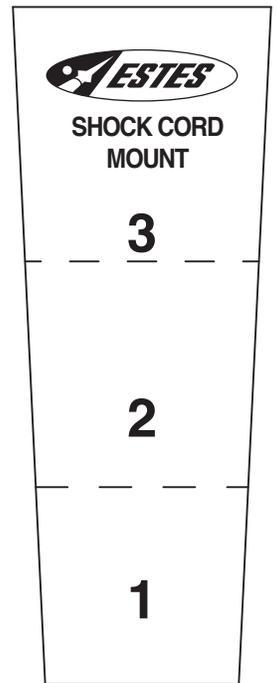
**090001-7312**  
Waterslide decal

# TUBE MARKING GUIDE AND SHOCK CORD MOUNT

Make a copy if you want to keep instructions.



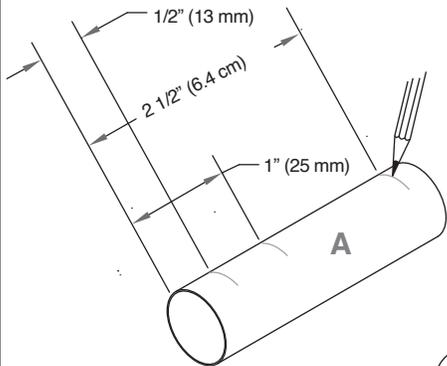
TUBE MARKING GUIDE



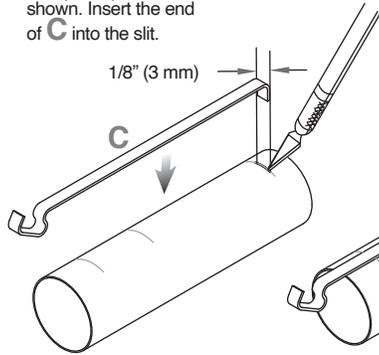
**NOTE:**  
Make a copy if you want to keep instructions.

## ASSEMBLE ENGINE MOUNT

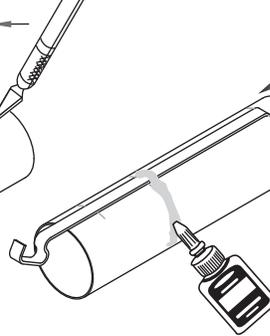
1. Mark **A** as shown.



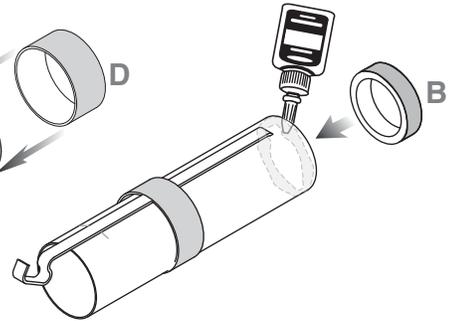
2. Use a hobby knife to make a 1/8" (3 mm) slit into **A** as shown. Insert the end of **C** into the slit.



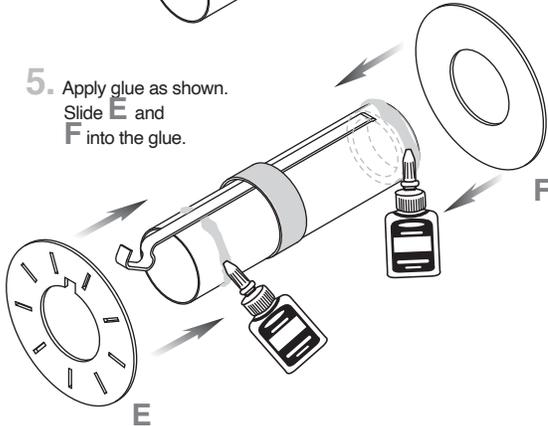
3. Apply glue as shown. Slide **D** into glue.



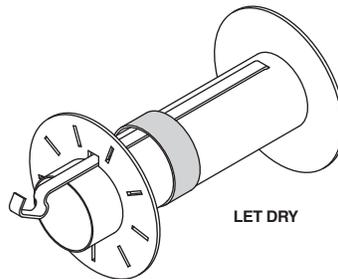
4. Apply glue inside **A** as shown and insert **B**.



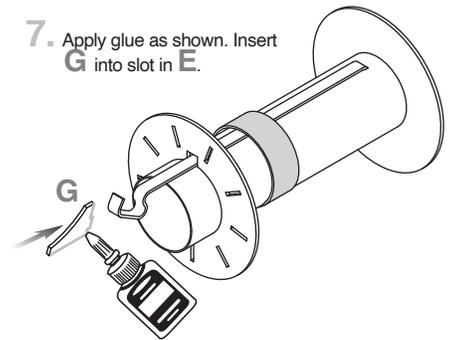
5. Apply glue as shown. Slide **E** and **F** into the glue.



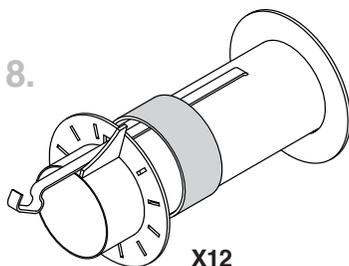
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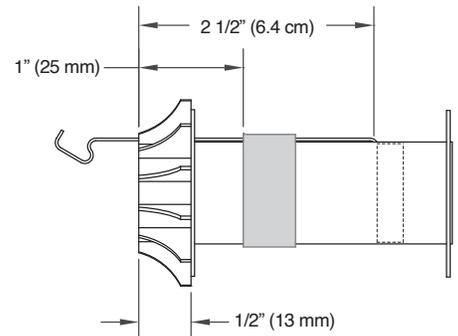
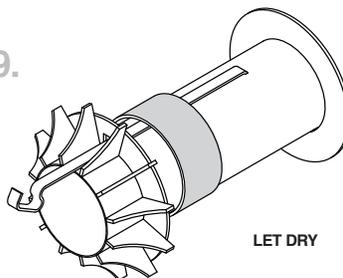
7. Apply glue as shown. Insert **G** into slot in **E**.



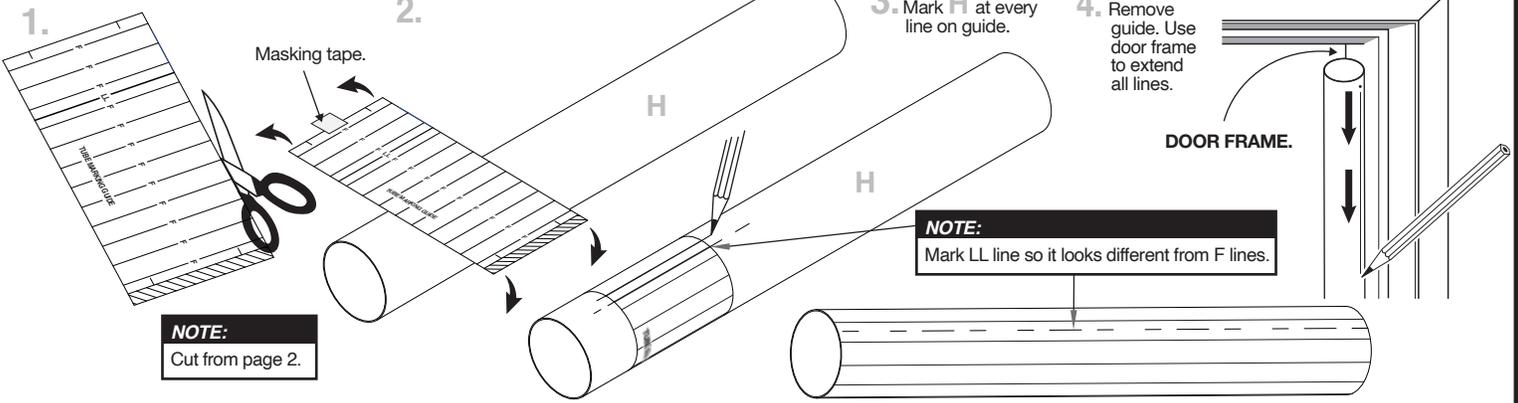
8.



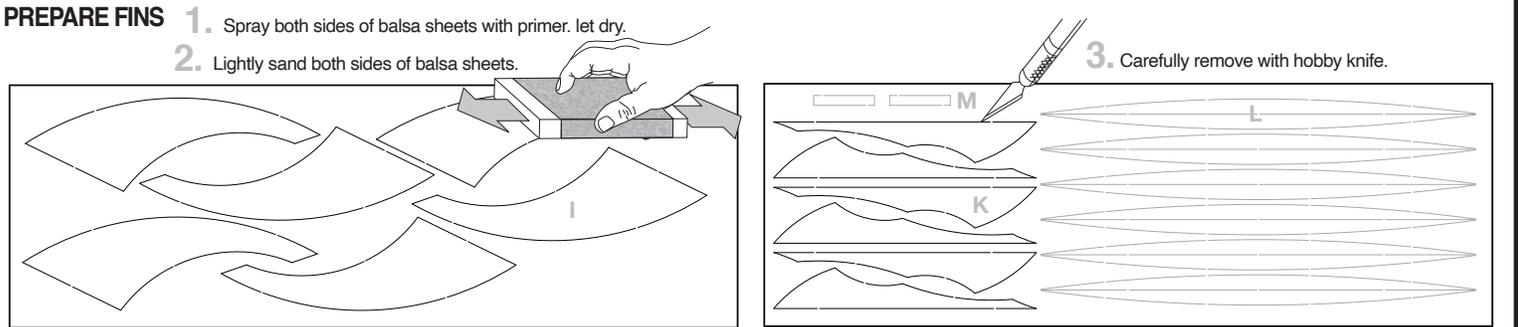
9.



## MARK BODY TUBE

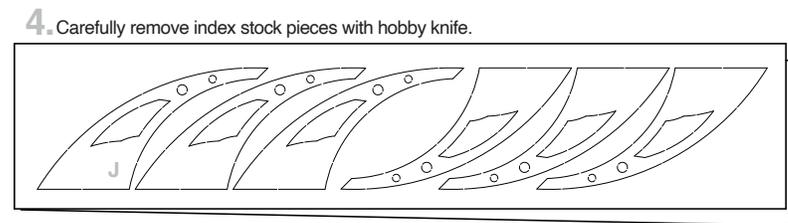


## PREPARE FINS

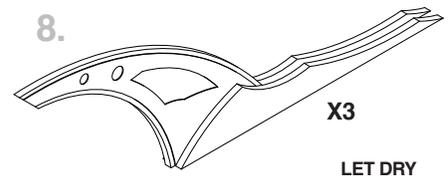
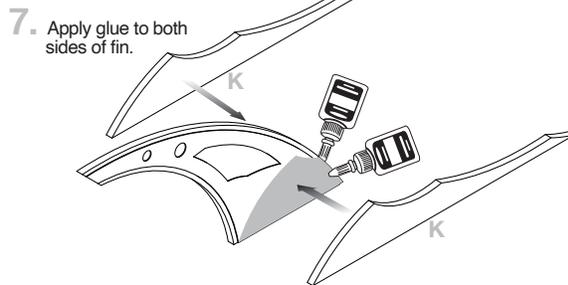
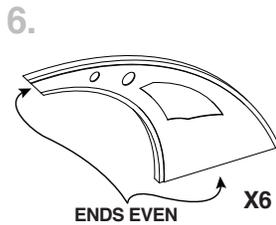
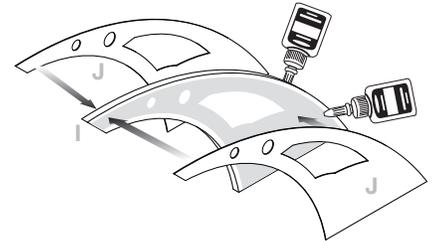


**NOTE:**  
Assemble and glue on flat surface covered with wax paper.

**NOTE:**  
The balsa fins need to be sealed with primer, dry and lightly sanded before gluing to index stock.

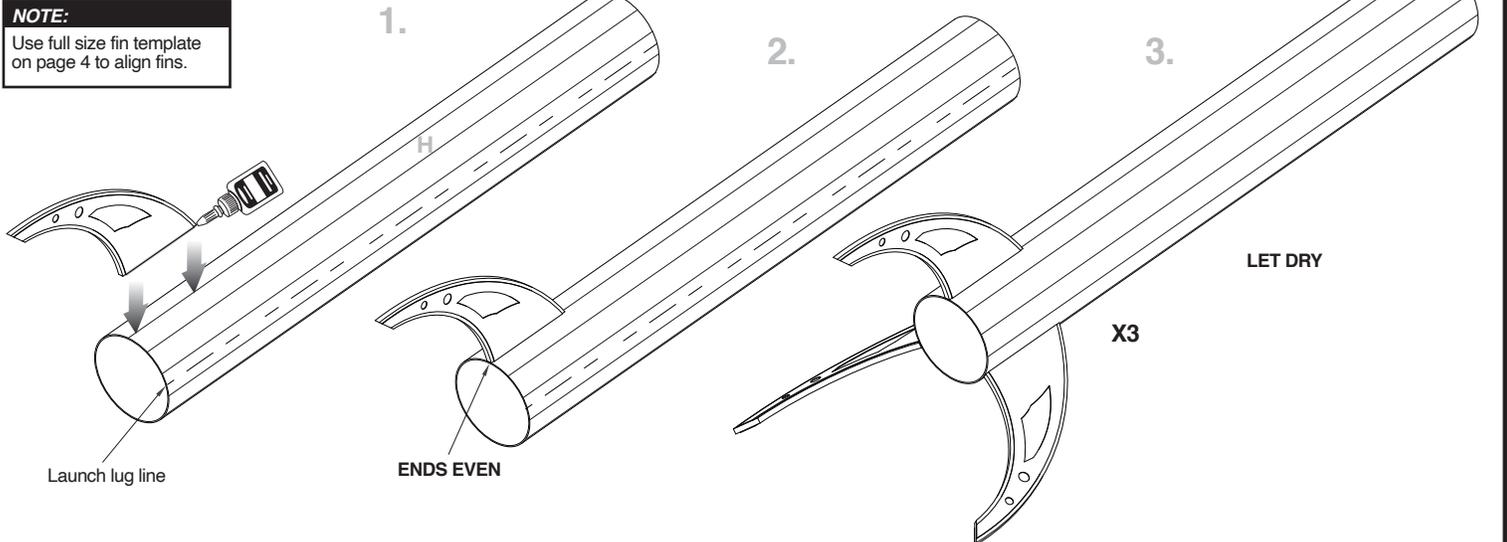


5. Apply glue to both sides of I.



## ATTACH SMALLER FINS

**NOTE:**  
Use full size fin template on page 4 to align fins.



**ATTACH LARGER FINS**

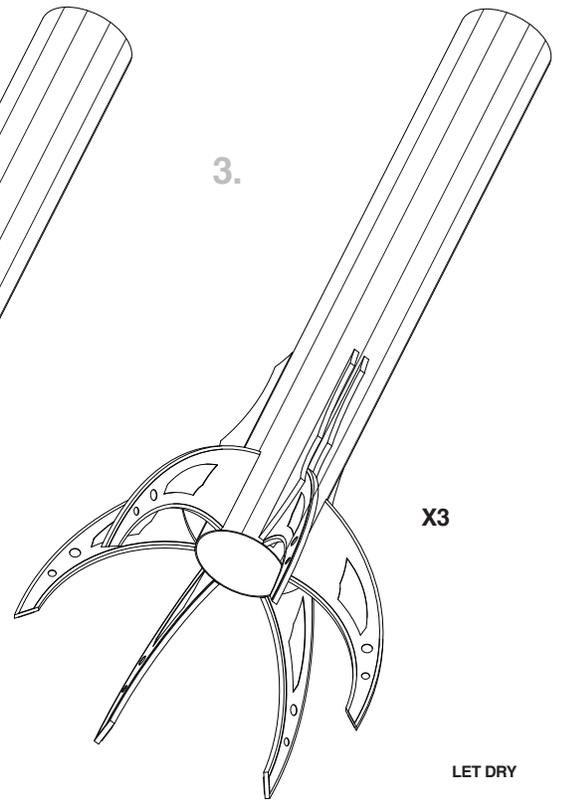
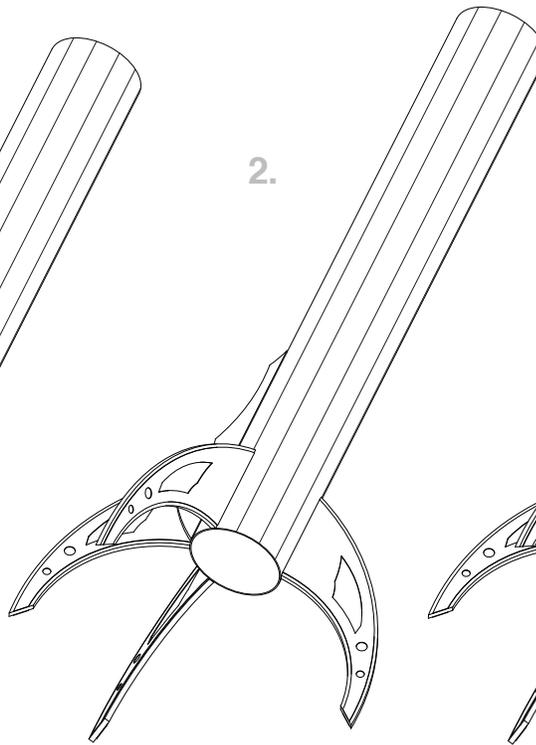
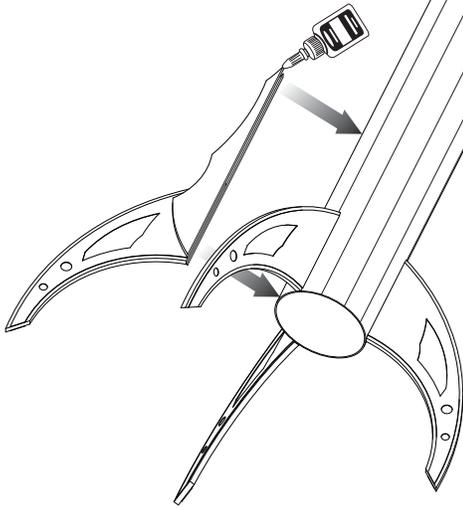
**NOTE:**

Use full size fin template below to align fins.

1.

2.

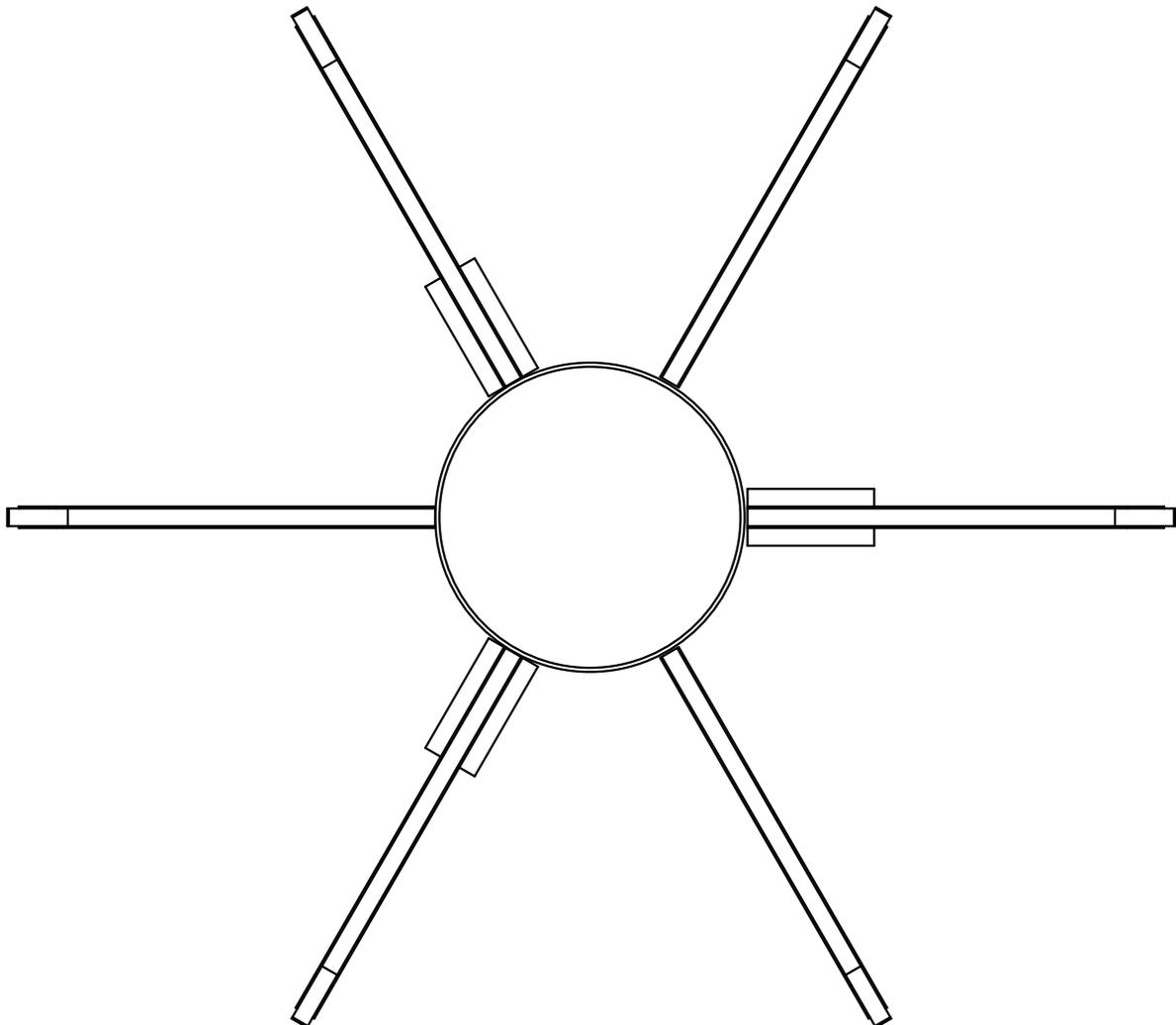
3.



**X3**

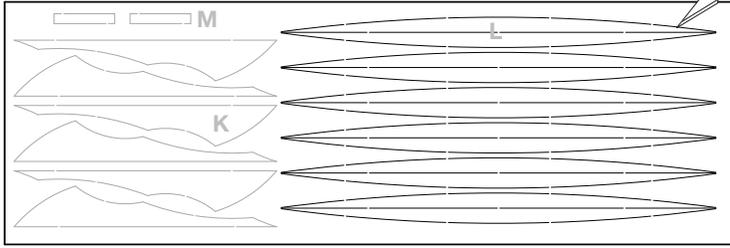
**LET DRY**

**FULL SIZE FIN TEMPLATE**

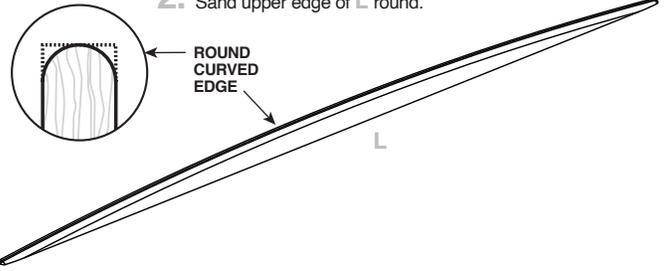


# ATTACH FRONT DETAIL PARTS

1. Carefully remove L with hobby knife.



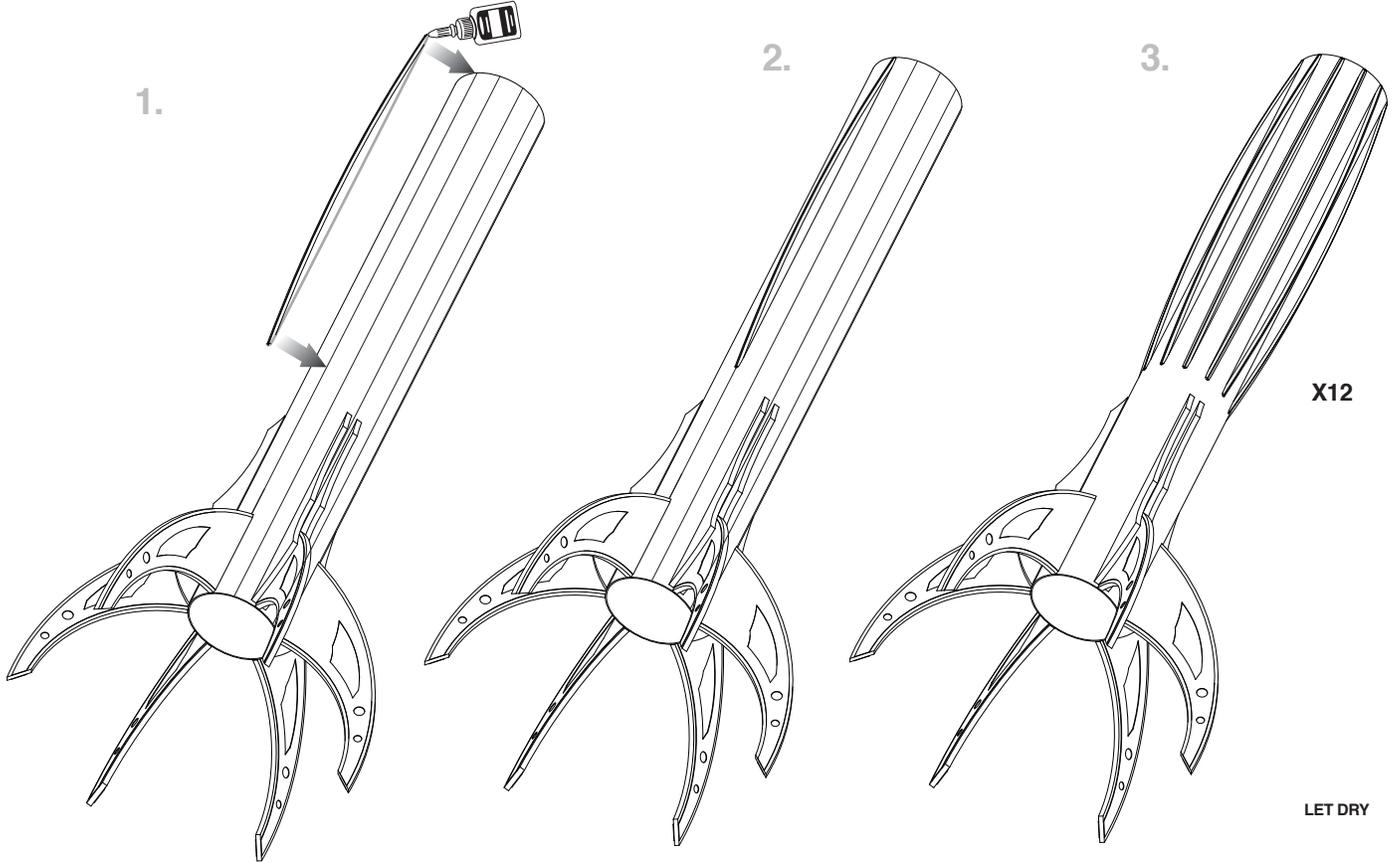
2. Sand upper edge of L round.



1.

2.

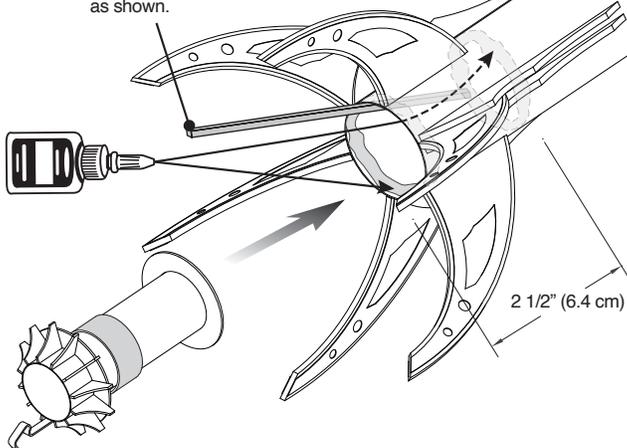
3.



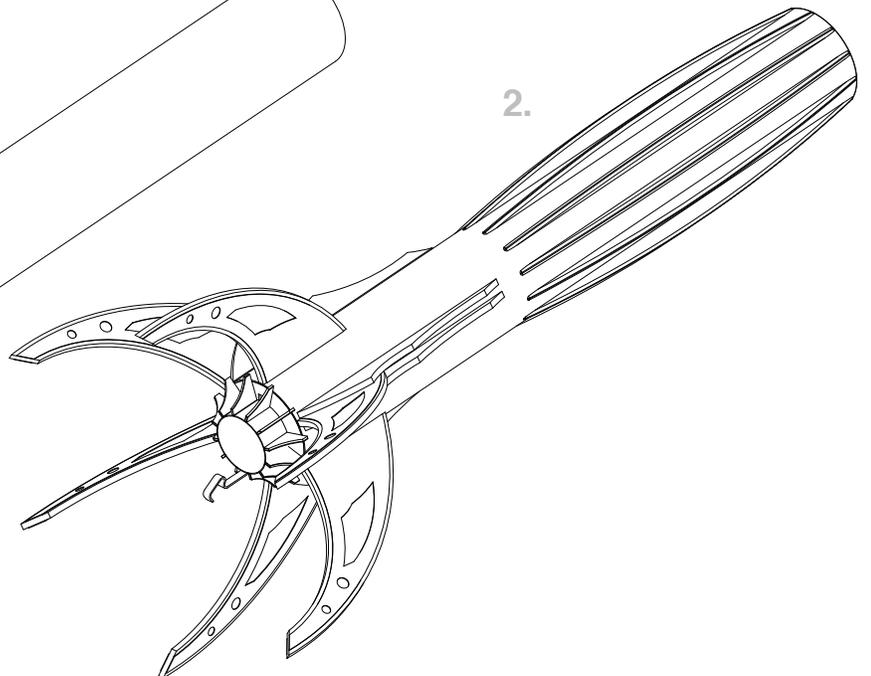
# INSTALL ENGINE MOUNT

1.

Use balsa scrap or stick to apply glue as shown.

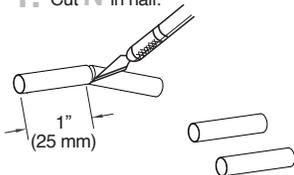


2.

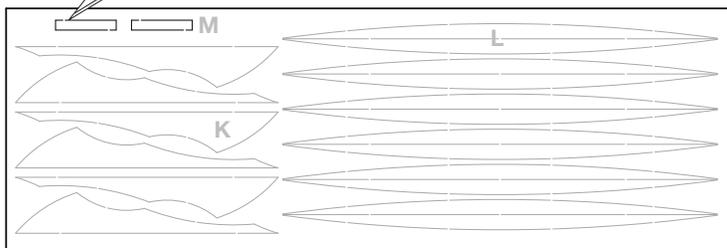


## ATTACH LAUNCH LUGS

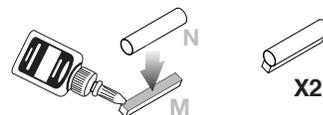
1. Cut N in half.



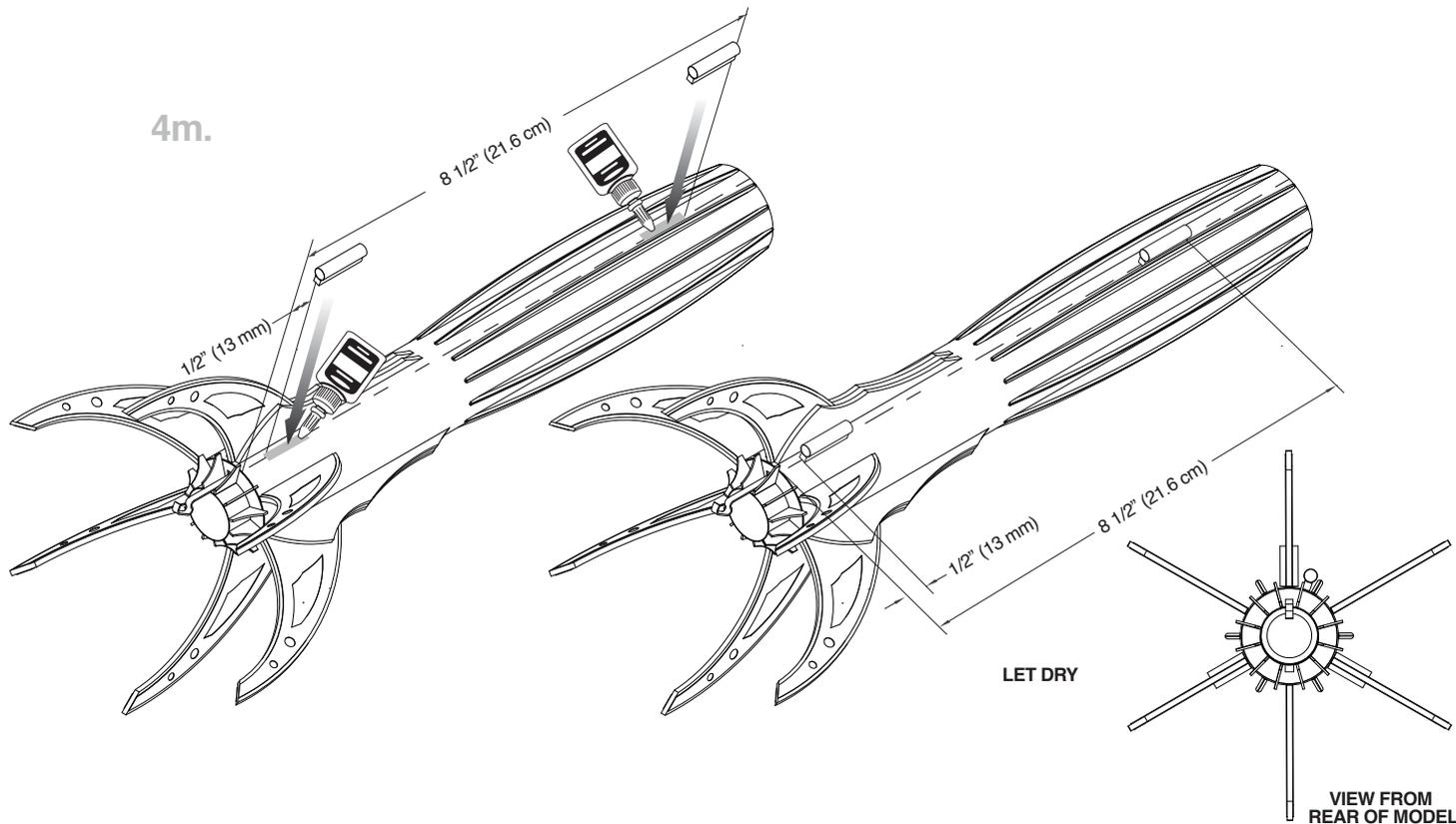
2. Carefully remove M with hobby knife.



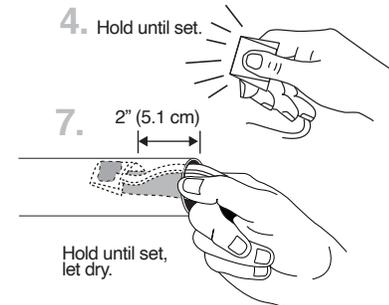
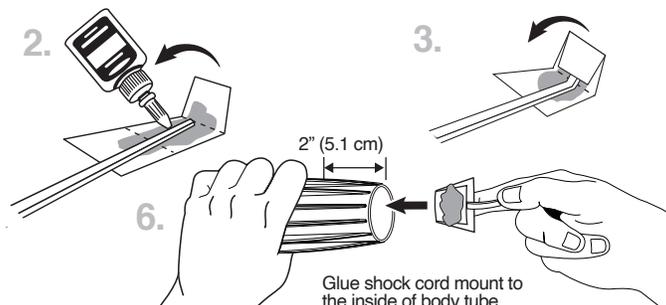
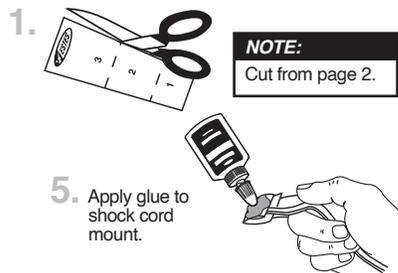
3.



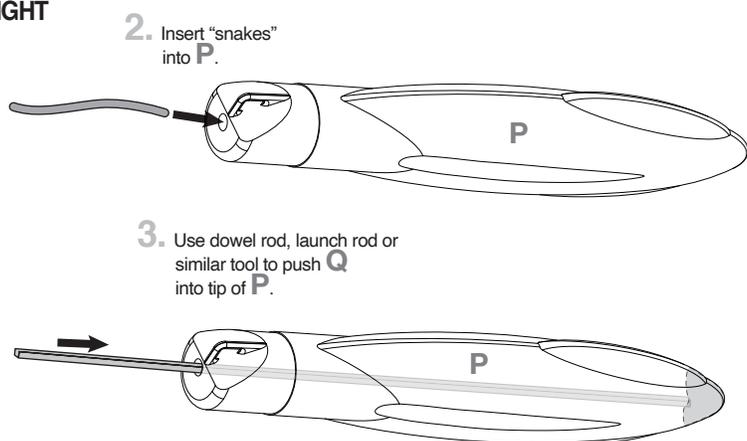
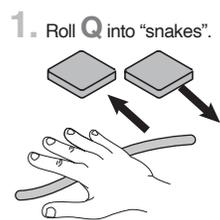
4m.



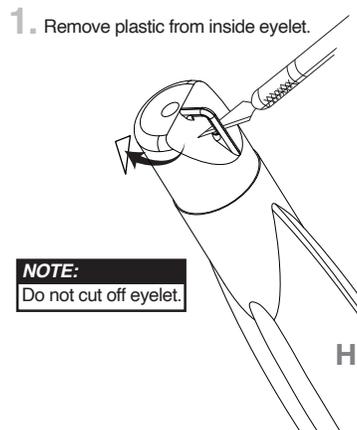
## ATTACH SHOCK CORD



## INSTALL CLAY NOSE WEIGHT



## PREPARE NOSE CONE



## ROCKET FINISHING

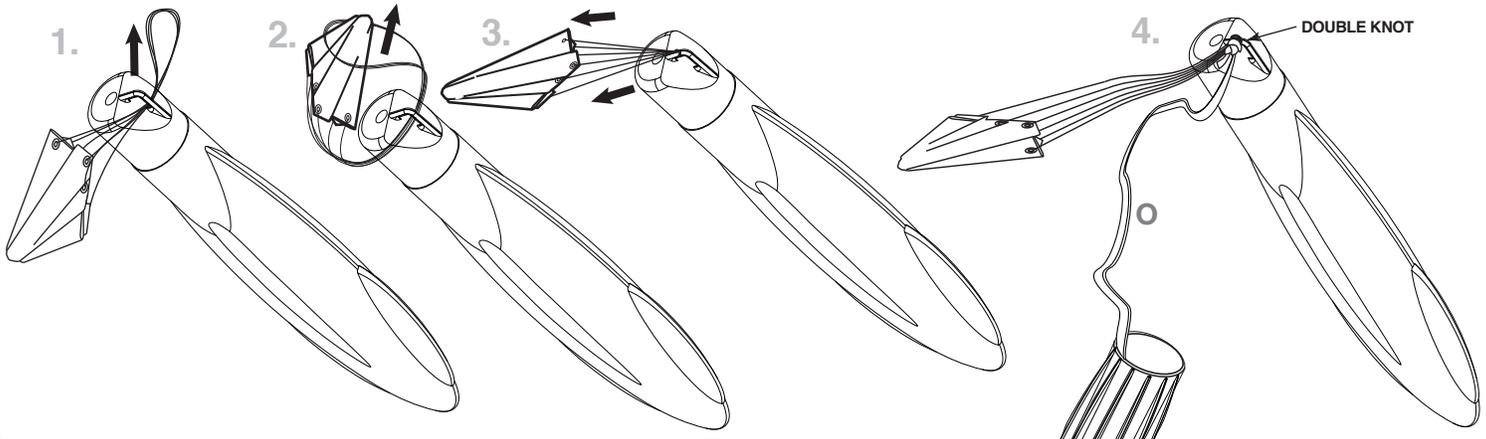
1. Spray rocket with gray primer, let dry. Lightly sand as needed. Paint rocket gray and let dry completely.
2. Remove and mask nose cone. Paint exposed areas black. Apply decals after paint is dry.
3. Cut decals from sheet, trimming close to edge.
4. One at a time, place in warm water until decal curls and begins to relax.
5. Remove and position on rocket, sliding decal away from backing material.
6. Blot with clean paper towel. Let set overnight.
7. OPTIONAL: Apply protective clear coat.

### NOTE:

Please refer to packaging for suggested paint scheme and/or decal placement.



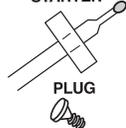
## ATTACH PARACHUTE AND SHOCK CORD



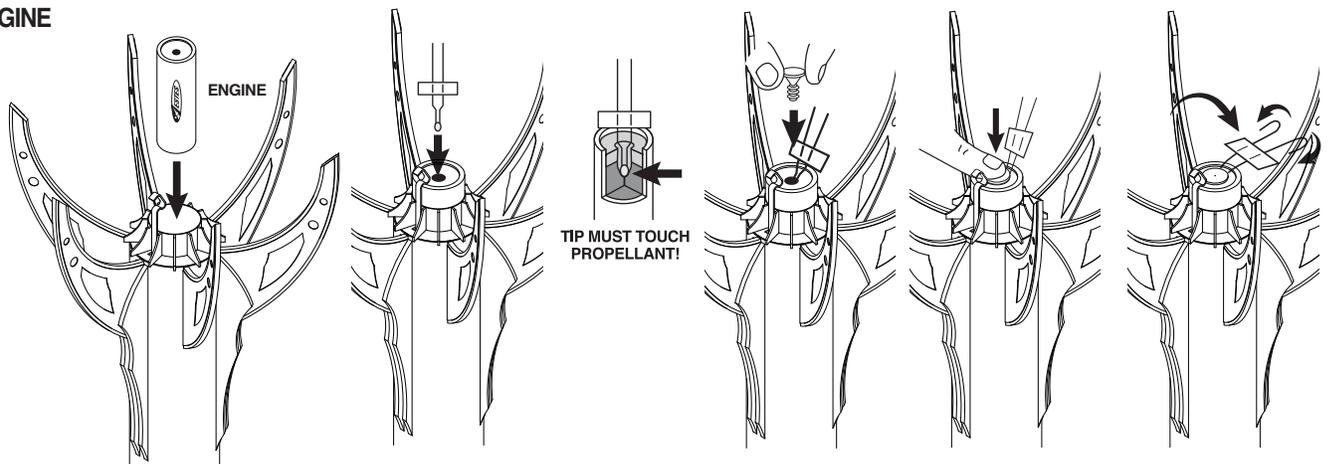
## PREPARE ENGINE

Use 1 each.

STARTER

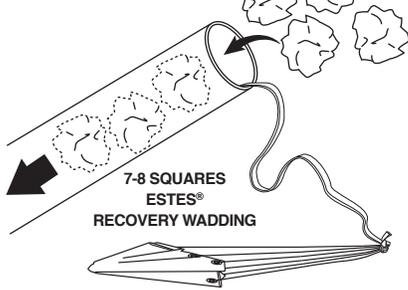


PLUG

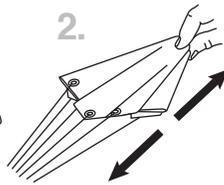


## PREPARE FLIGHT RECOVERY

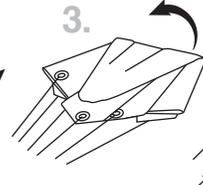
1. Push recovery wadding down towards end of body tube.



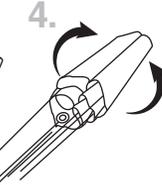
2.



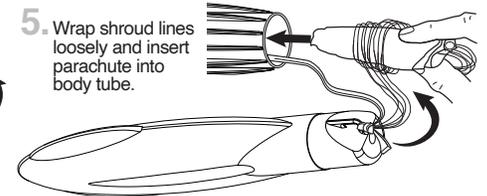
3.



4.



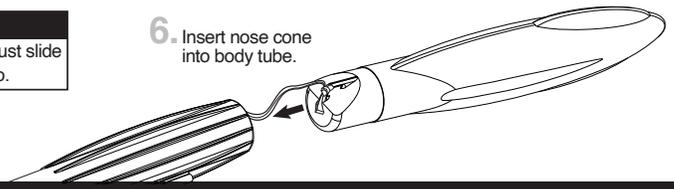
5. Wrap shroud lines loosely and insert parachute into body tube.



**NOTE:**

Recovery wadding and parachute must slide easily into body tube. If too tight, redo.

6. Insert nose cone into body tube.



## COUNTDOWN AND LAUNCH

**NOTE:**

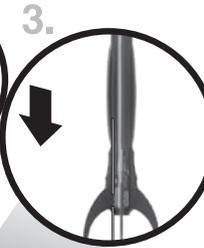
Key always out until final countdown!



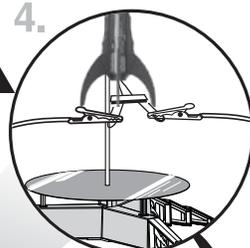
2.



3.

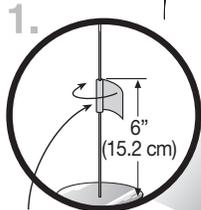


4.



5. Fully extend your launch controller wire before launching.

1.

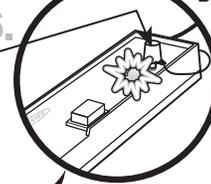


MASKING TAPE



Insert key, push down hard. Bulb will light.

6.



KEY

7.



4... 3... 2... 1...

**NOTE:**

Estimated weight: 4.4 oz. (125 g)

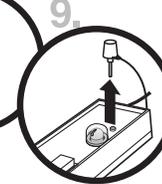
**ESTES® LAUNCH SUPPLIES NEEDED (Sold Separately)**

- Porta Pad® E Launch Pad
- 3/16" (5 mm) Maxi™ Launch Rod
- E Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Estes® Engines: C-11-3, D12-3

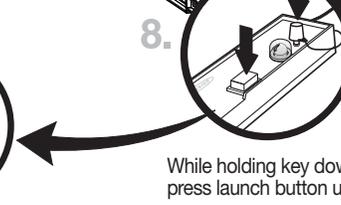
10.



9.



8.



While holding key down FIRMLY, press launch button until LIFTOFF!

## PRECAUTIONS



NAR SAFETY CODE



NO DRY GRASS OR WEEDS

**PRE-LAUNCH CHECK** For safety, never launch a damaged rocket. Check the rocket's body, nose cone and fins. Also, check the engine mount, recovery system and launch lug(s). Repair any damage before launching the rocket.

**FLYING YOUR ROCKET** Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE (enclosed).

**MISFIRES TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET.** Disconnect the micro-clips and remove the engine. Take the plug and starter out of the engine. A burned starter means the starter tip was not touching engine propellant. Install a new starter; be sure the tip is touching propellant inside the engine. Push the plug in place. Repeat steps under Countdown and Launch.

