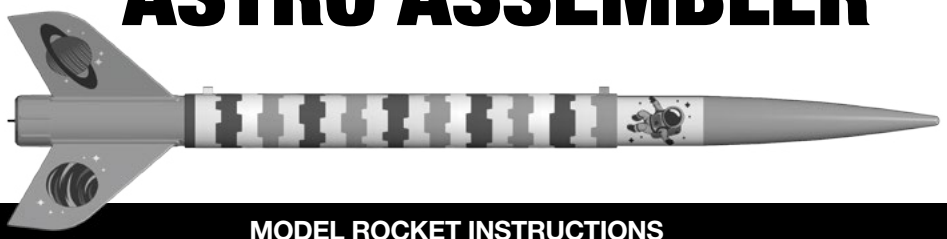
ESTES

EstesRockets.com

ASTRO ASSEMBLER™

0649/2418



AGES 10+

Skill Level

BEGINNER

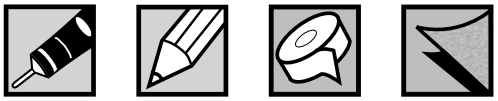
MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

IMPORTANT: Please record date found on decal and keep for future reference. _____

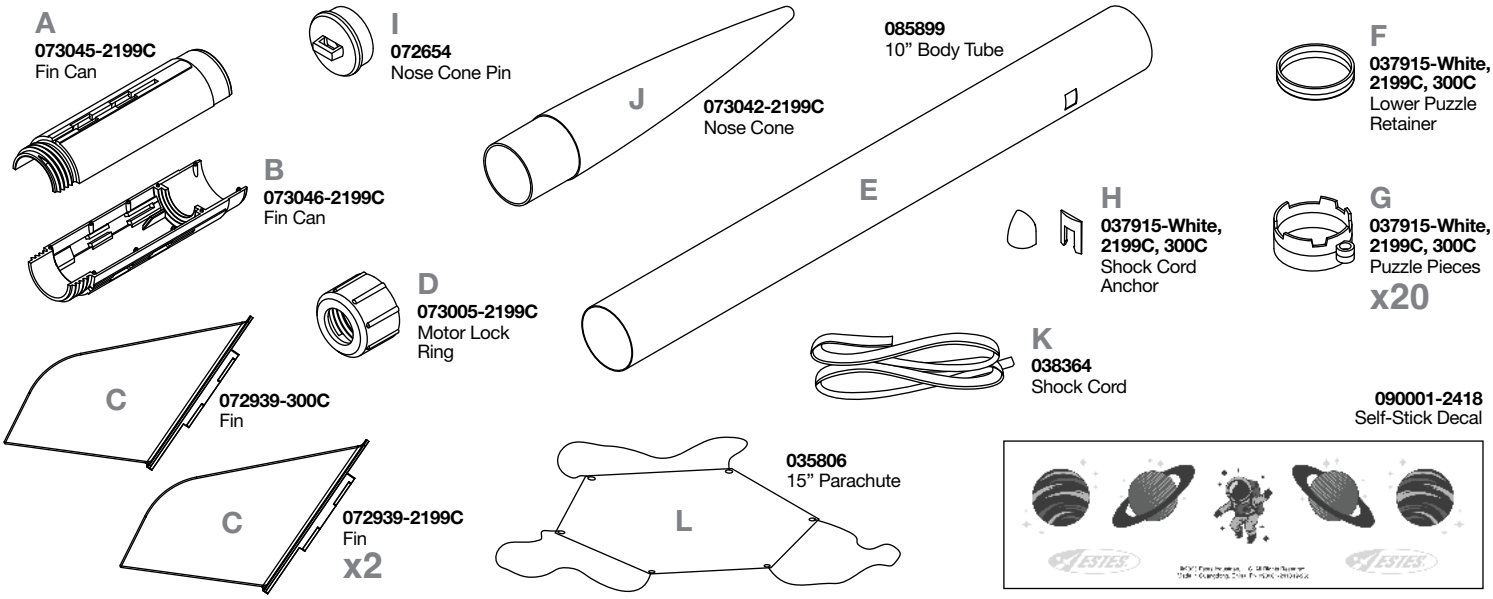
READ ALL INSTRUCTIONS. *Make sure you have all parts and supplies. Test fit all parts before applying glue. Refer to your glue manufacturer's dry times during build.*

SUPPLIES



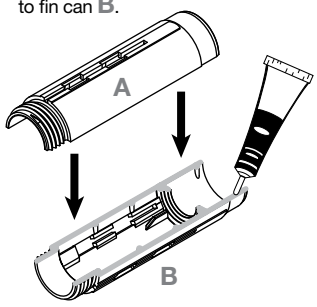
PLASTIC CEMENT | PENCIL | MASKING TAPE | FINE SANDPAPER

⚠ CAUTION: *May not apply to all kits. For safe handling of plastic cement, epoxy, spray adhesive, CA glue, CA accelerator, paint/finishing materials, see manufacturer's warnings and follow instructions for use. To avoid injury, use extreme caution when using hobby knife, scissors, drills, and any cutting tools.*

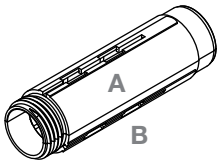


ASSEMBLE FIN CAN

1. Apply plastic cement to fin can **B**.

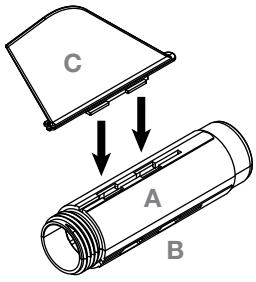


2. Press **A** and **B** together. Hold for 30 seconds.

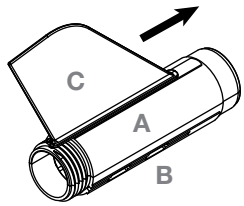


LET DRY

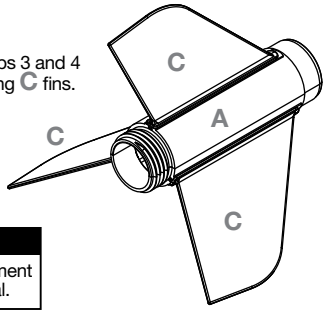
3. Insert fin **C** into the slot on fin can **A/B**.



4. Slide fin **C** forward to lock into place.

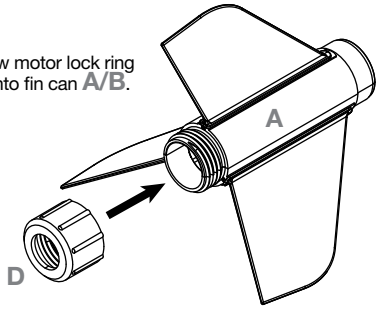


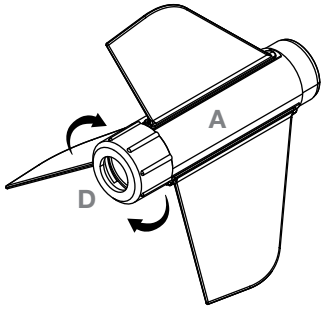
5. Repeat steps 3 and 4 for remaining **C** fins.



NOTE:
Using plastic cement for fins is optional.

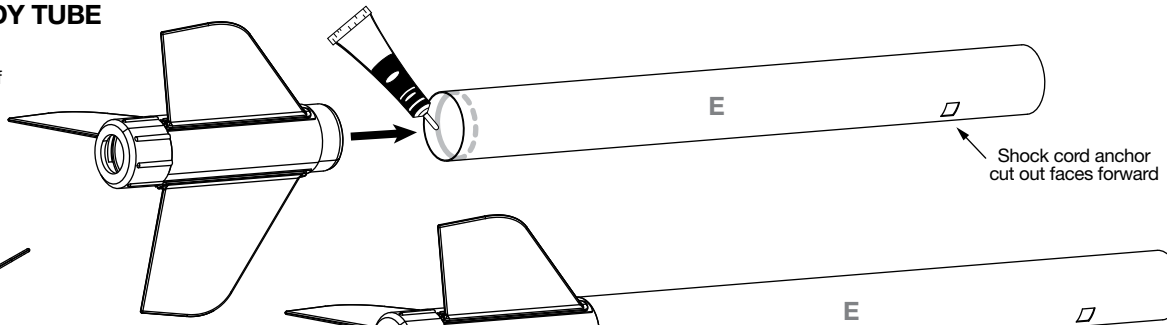
6. Screw motor lock ring **D** onto fin can **A/B**.

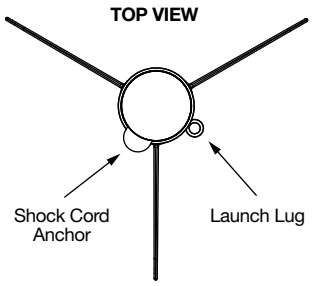




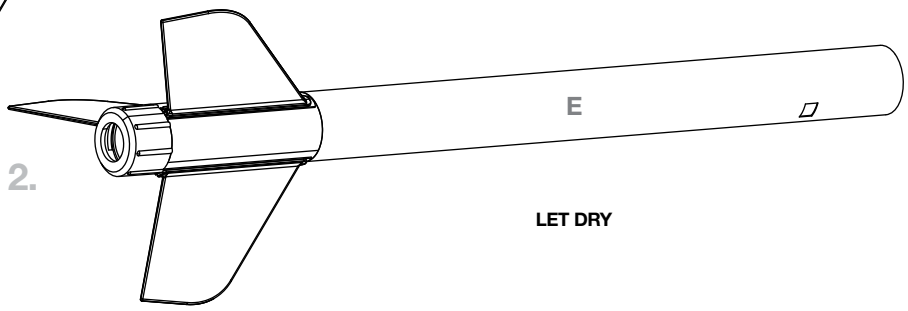
ATTACH FIN CAN TO BODY TUBE

1. Apply plastic cement to inside of body tube **E**. Insert the fin can assembly.





2.

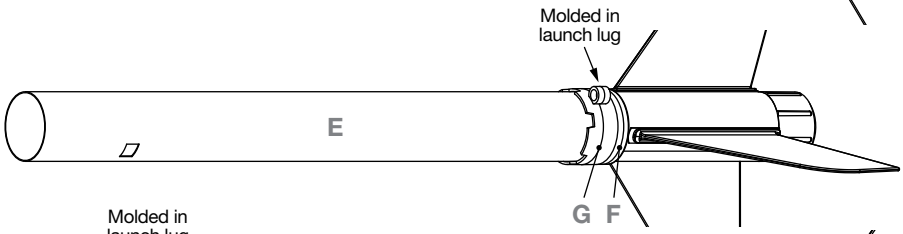


ASSEMBLE PUZZLE

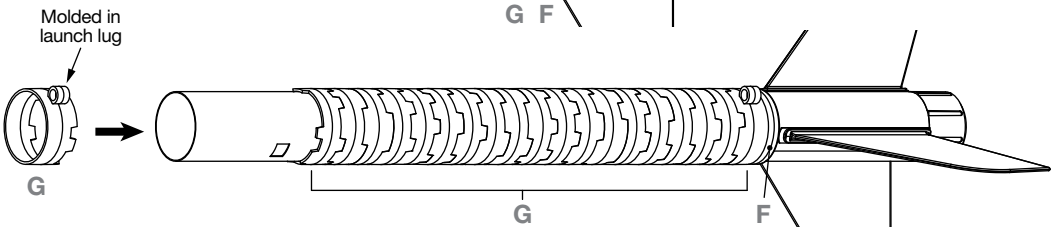
1. Slide lower puzzle retainer **F** all the way down body tube **E**.



2. Start adding **G** puzzle pieces with one that has a molded in launch lug.



3. Continue adding **G** puzzle pieces over body tube **E**. End the puzzle with a piece that has a molded in launch lug.

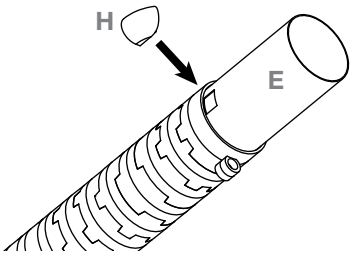


NOTE:

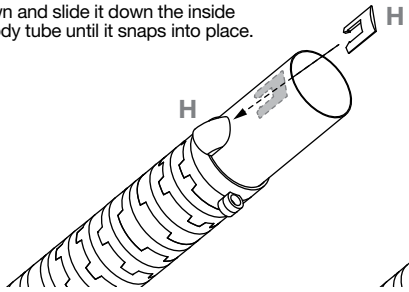
Assemble a few puzzle pieces first, before placing over body tube.

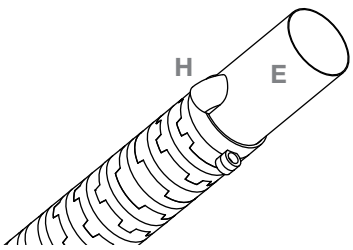
ATTACH SHOCK CORD ANCHOR

1. Insert shock cord anchor **H** through square hole in body tube **E**.



2. Orient shock cord anchor **H** as shown and slide it down the inside of body tube until it snaps into place.



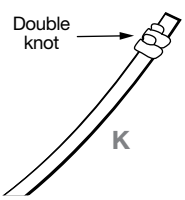


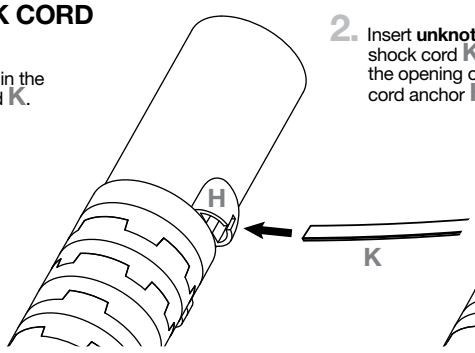
NOTE:

You may need a pen or pencil to help push anchor in place.

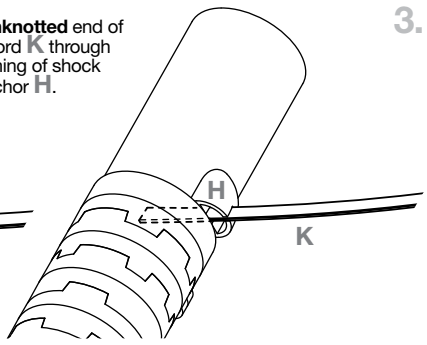
INSTALL SHOCK CORD

1. Tie a double knot in the end of shock cord **K**.

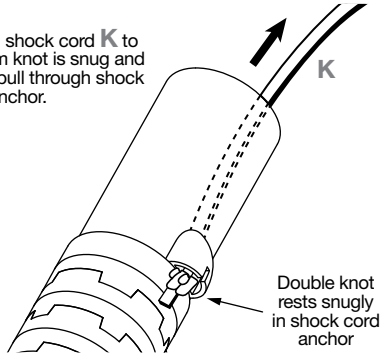




2. Insert **unknotted** end of shock cord **K** through the opening of shock cord anchor **H**.

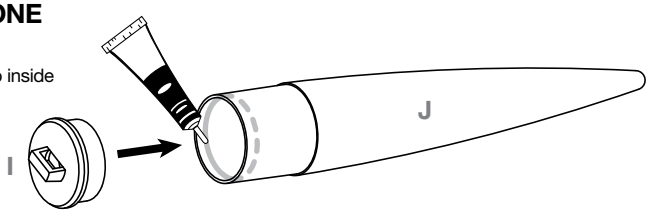


3. Pull on shock cord **K** to confirm knot is snug and won't pull through shock cord anchor.

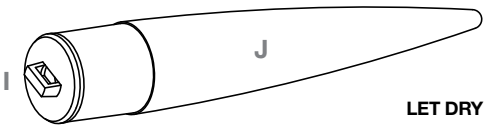


PREPARE NOSE CONE

1. Apply plastic cement to inside of nose cone **J**.



2. Insert nose cone pin **I** into nose cone **J**.



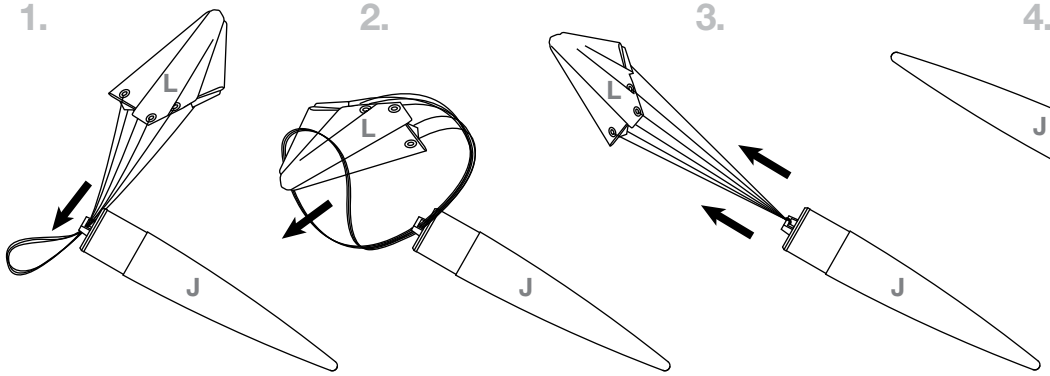
LET DRY

ATTACH PARACHUTE

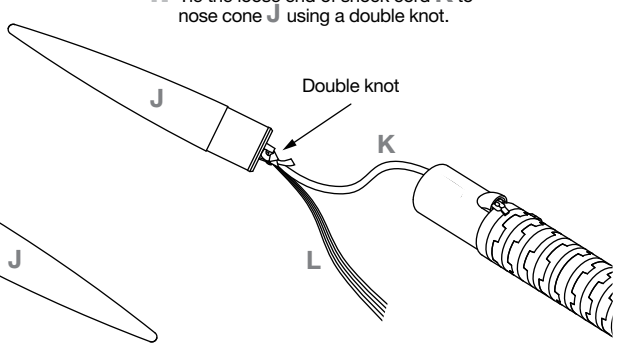
1.

2.

3.

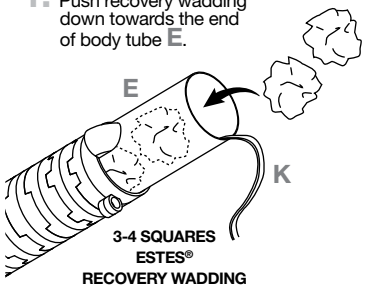


4. Tie the loose end of shock cord **K** to nose cone **J** using a double knot.



PREPARE FLIGHT RECOVERY

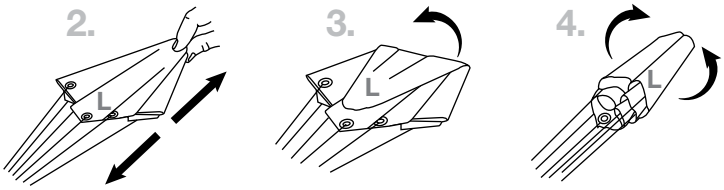
1. Push recovery wadding down towards the end of body tube **E**.



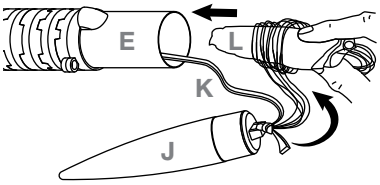
2.

3.

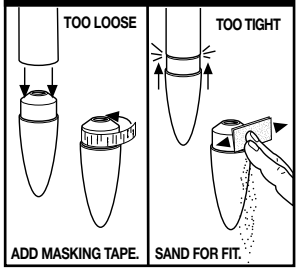
4.



5. Wrap parachute shroud lines loosely around the parachute **L** and insert into body tube **E**.



IF NOSE CONE FIT IS…

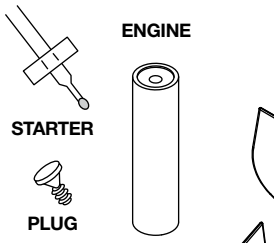


NOTE:

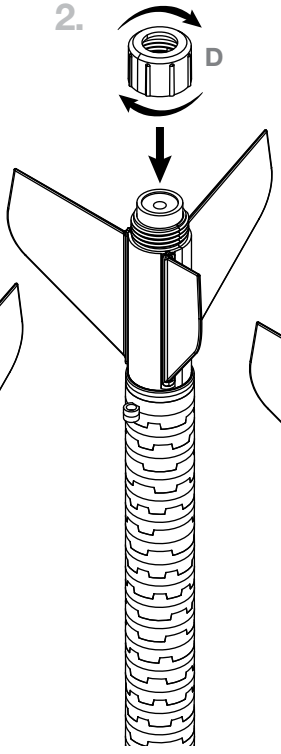
Recovery wadding and parachute must slide easily into body tube. If too tight, redo.

PREPARE ENGINE

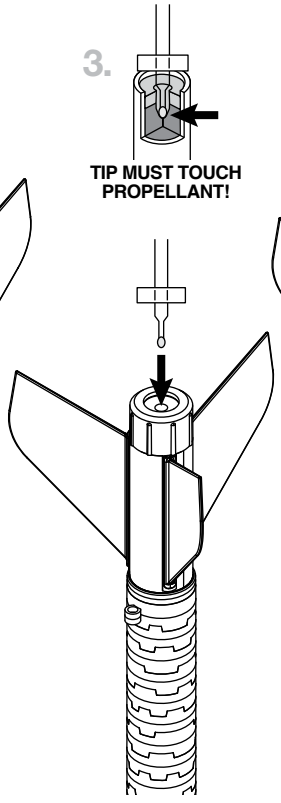
1. Use one each.



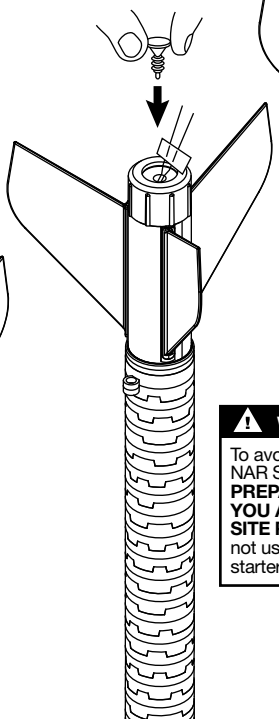
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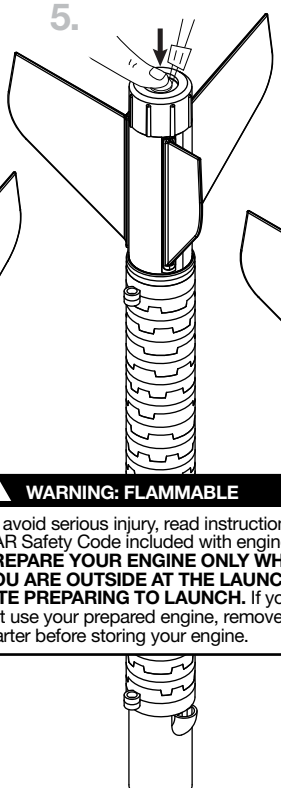
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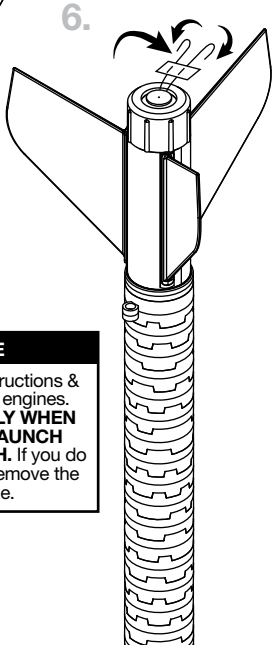
4.



5.



6.



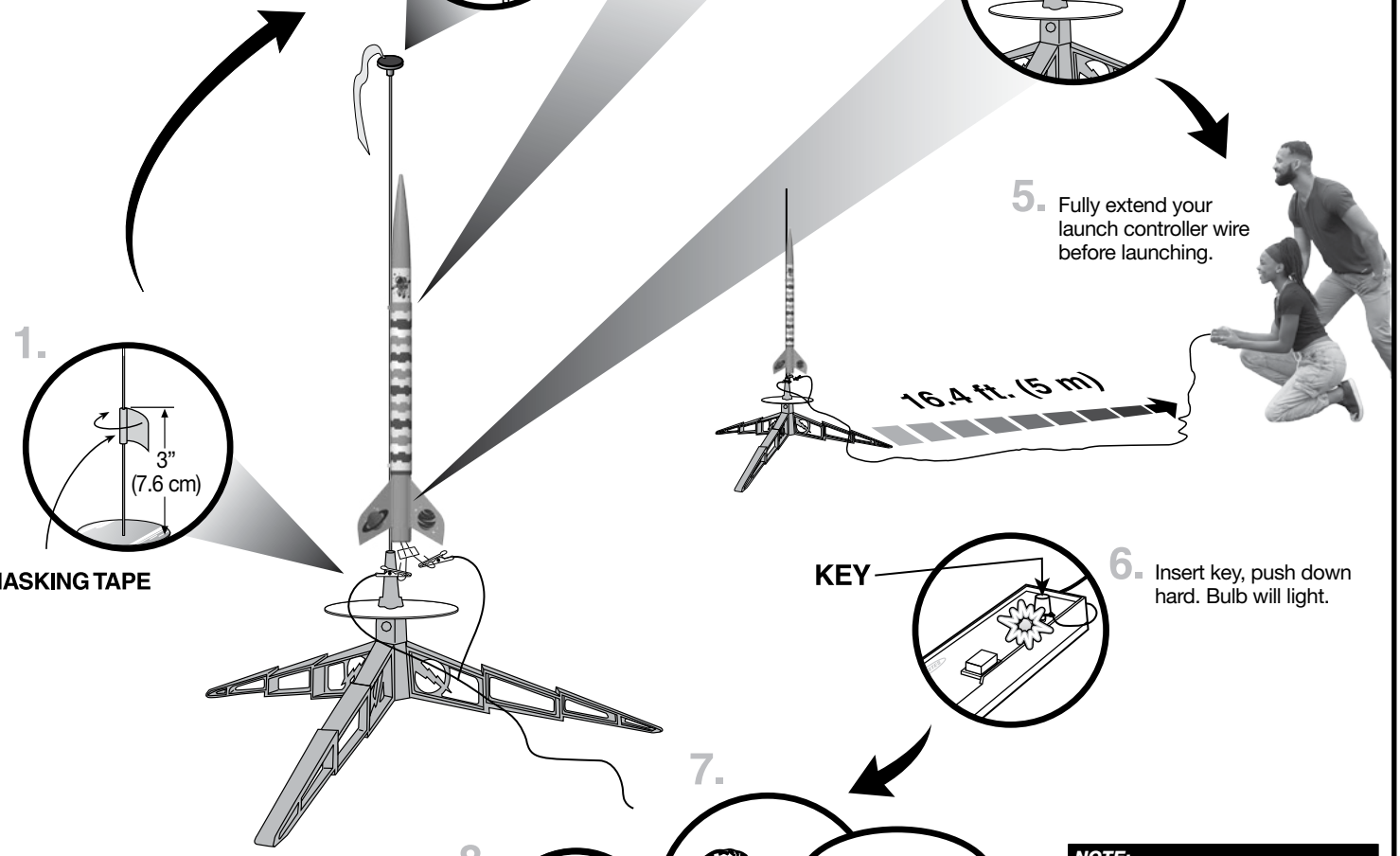
⚠ WARNING: FLAMMABLE

To avoid serious injury, read instructions & NAR Safety Code included with engines. **PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH.** If you do not use your prepared engine, remove the starter before storing your engine.

COUNTDOWN AND LAUNCH

NOTE:
Always keep the key ***OUT*** until final countdown.





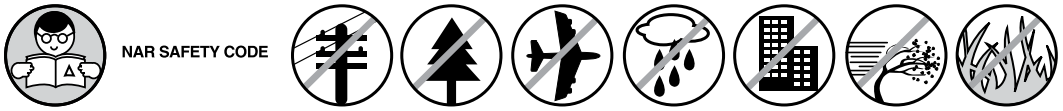
While holding key down FIRMLY, press launch button until LIFTOFF!

NOTE:
Estimated weight: 2.5 oz. (70.9 g)

ESTES® LAUNCH SUPPLIES NEEDED
(Sold Separately)

- Porta-Pad® II Launch Pad
- Electron Beam® Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Recommended Estes® Engines: B4-4, B6-4, C6-5

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. 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.

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