



EstesRockets.com

MINI GOBLIN™

2106

AGES
10+

Skill Level

INTERMEDIATE



MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

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

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.

SUPPLIES



PENCIL



FINE
SANDPAPER



RULER



YELLOW GLUE



HOBBY KNIFE



WHITE PRIMER



YELLOW & BLACK
PAINT



CLEAR COAT
(OPTIONAL)



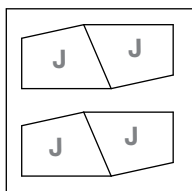
PLASTIC CEMENT



MASKING TAPE



SCISSORS

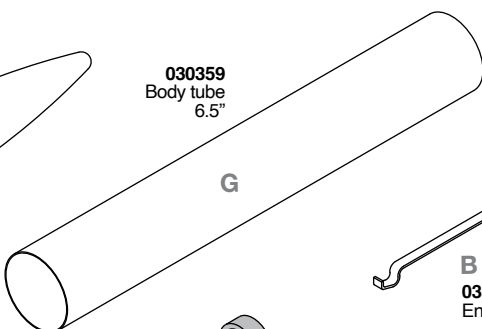


090051-2106
Laser cut balsa fins

072656
Nose Cone



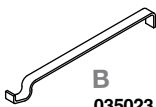
030359
Body tube
6.5"



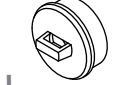
H
038175
Launch lug



B
035023
Engine hook

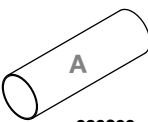
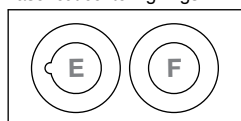


C
030222-4
Yellow engine block



I
072654
Nose cone pin

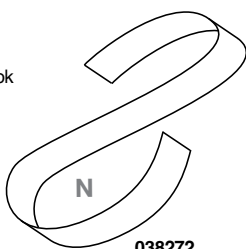
30118
Laser cut centering rings



030290
Engine mount
tube 1.75"



D
030167
Mylar engine hook
retainer ring



038272
Streamer

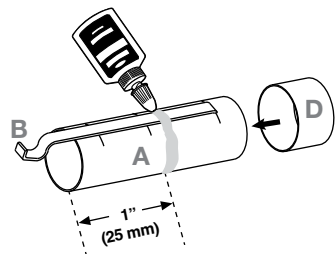
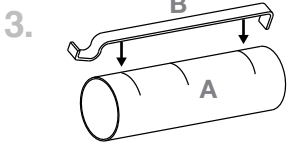
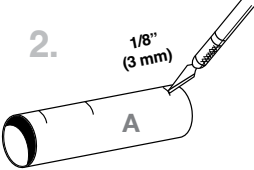
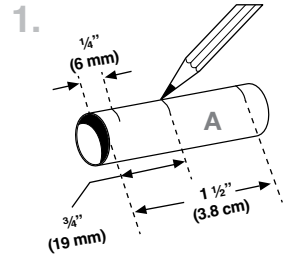


M
038364
Shock cord

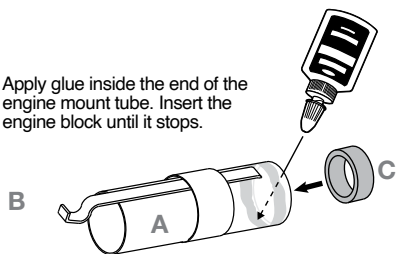


090001-2106
Waterslide
decal sheet

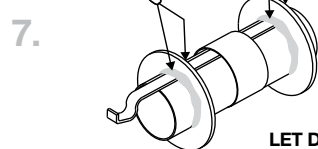
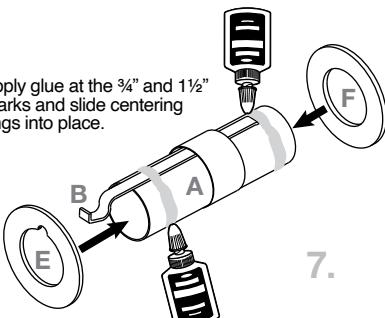
ASSEMBLE ENGINE MOUNT



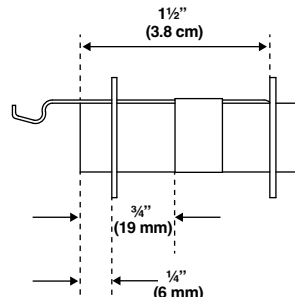
5. Apply glue inside the end of the engine mount tube. Insert the engine block until it stops.



6. Apply glue at the 3/4" and 1 1/2" marks and slide centering rings into place.

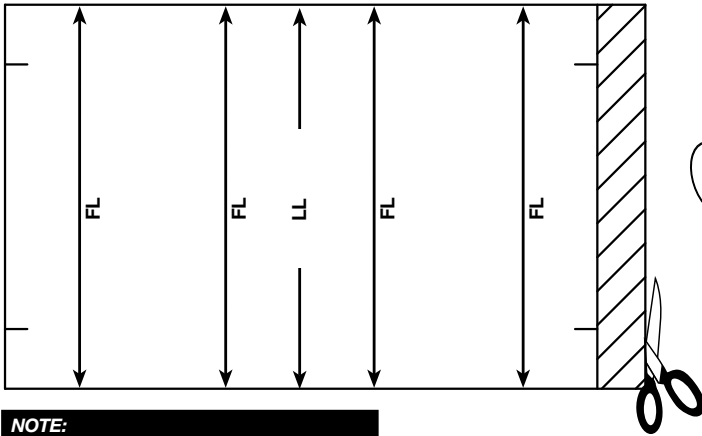


LET DRY



TUBE MARKING GUIDE

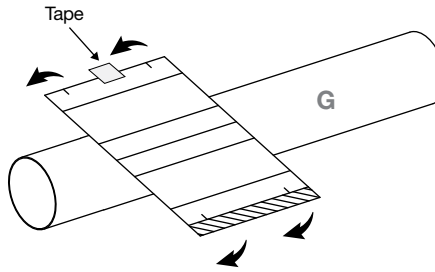
1. Cut out tube marking guide below.



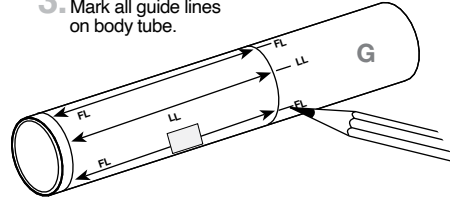
NOTE:

Make a copy if you want to keep instructions.

2. Wrap tube marking guide around end of body tube.

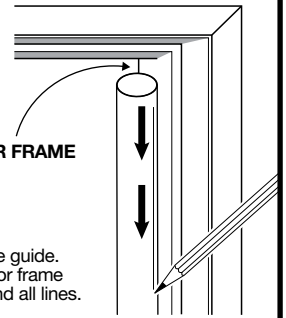


3. Mark all guide lines on body tube.



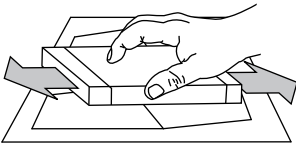
DOOR FRAME

4. Remove guide. Use door frame to extend all lines.

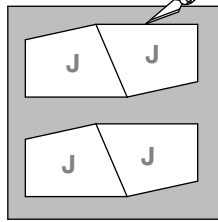


PREPARE FINS

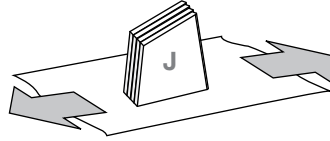
1. Sand both sides of laser cut fins.



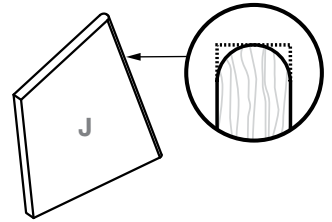
2. Using a hobby knife, cut out laser cut fins.



3. Stack fins together and sand all edges.

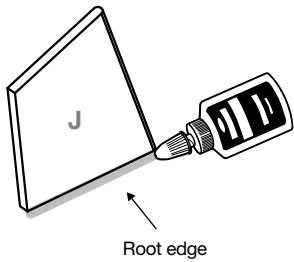


4. Round the leading edge of all fins.

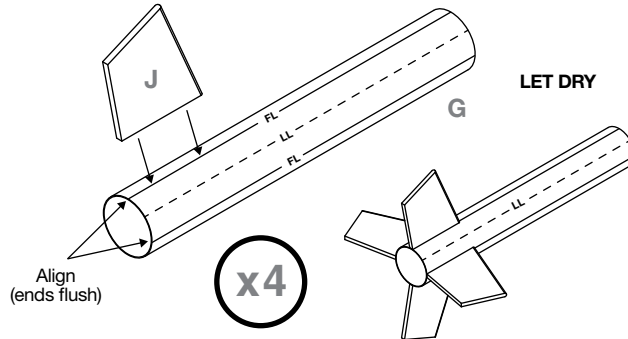


ATTACH FINS

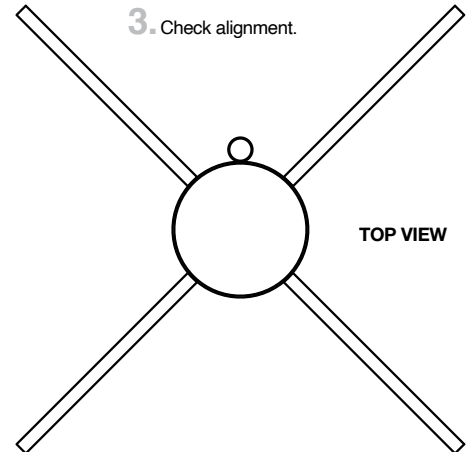
1. Apply thin layer of glue to root edge of fin. Let dry 1 minute and apply another thin layer.



2. Carefully align fins to the fin lines (FL) marked on the body tube. Align the bottom of the root edge of the fin with the bottom of the body tube.

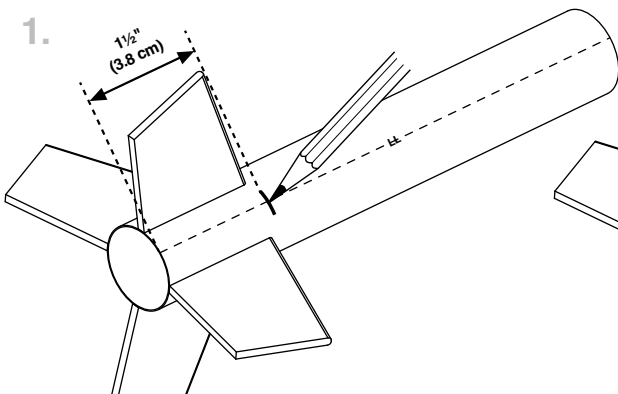


3. Check alignment.

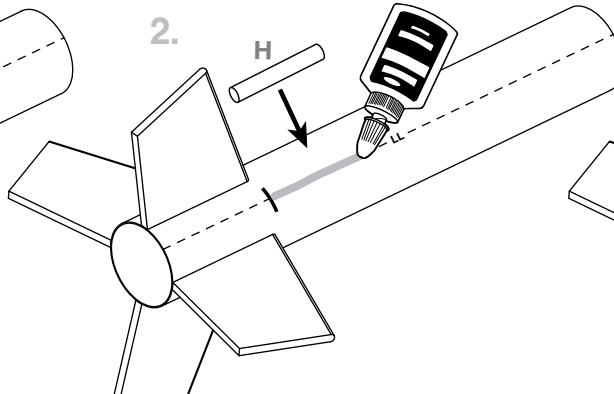


ATTACH LAUNCH LUG

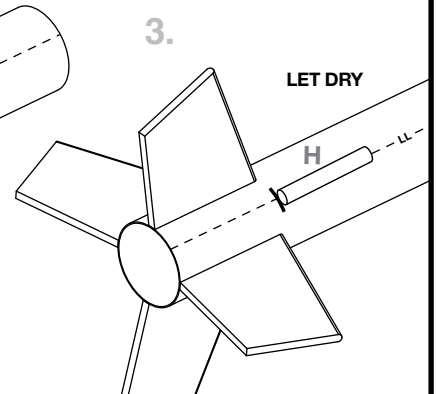
- 1.



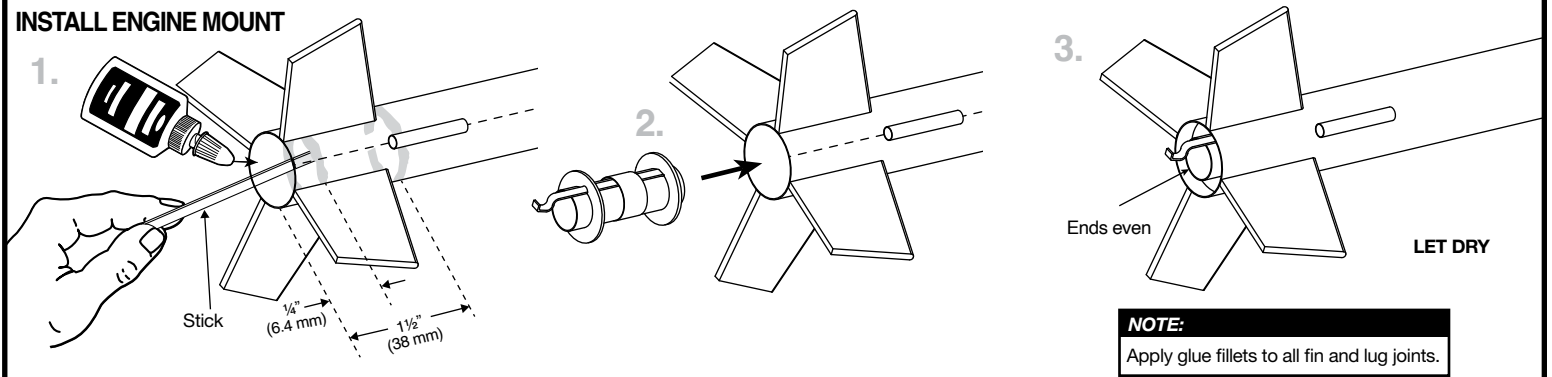
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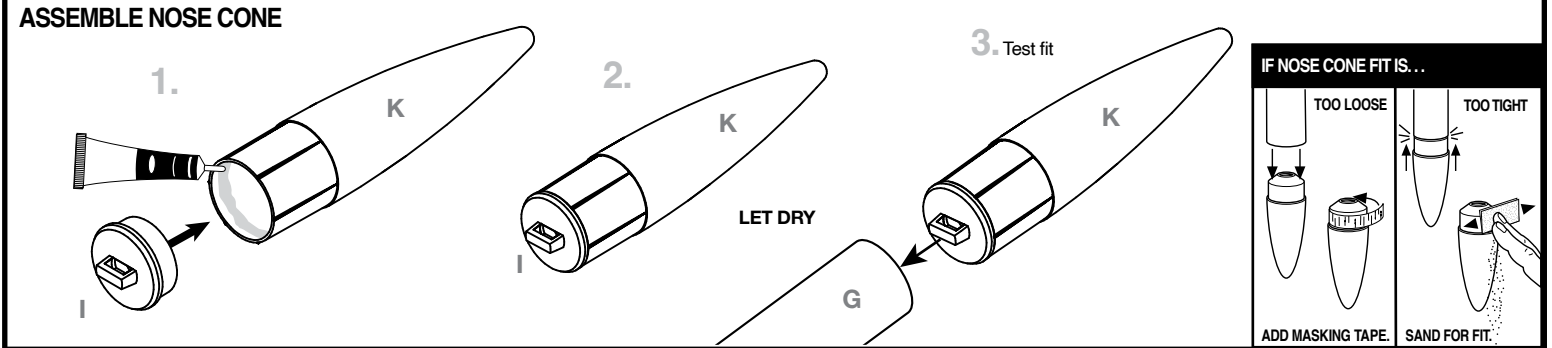
- 3.



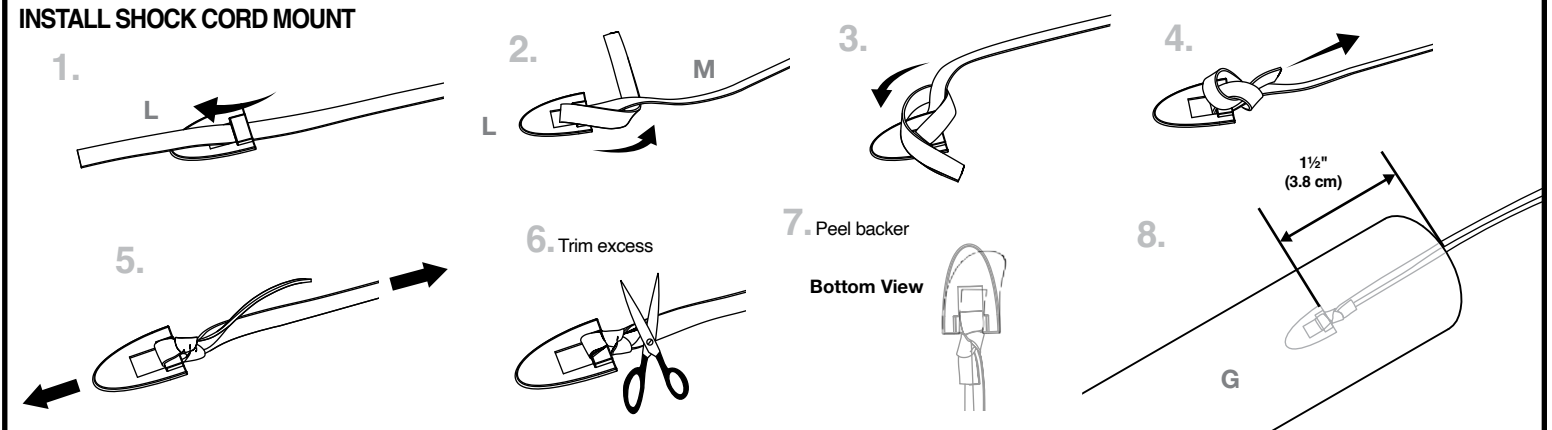
INSTALL ENGINE MOUNT



ASSEMBLE NOSE CONE



INSTALL SHOCK CORD MOUNT

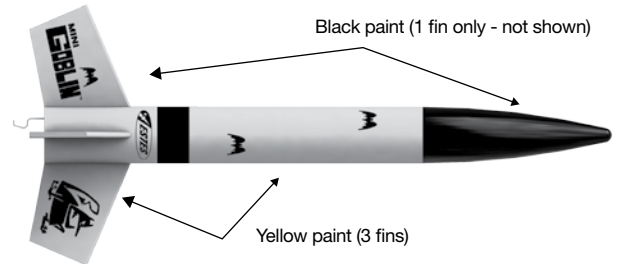


ROCKET FINISHING

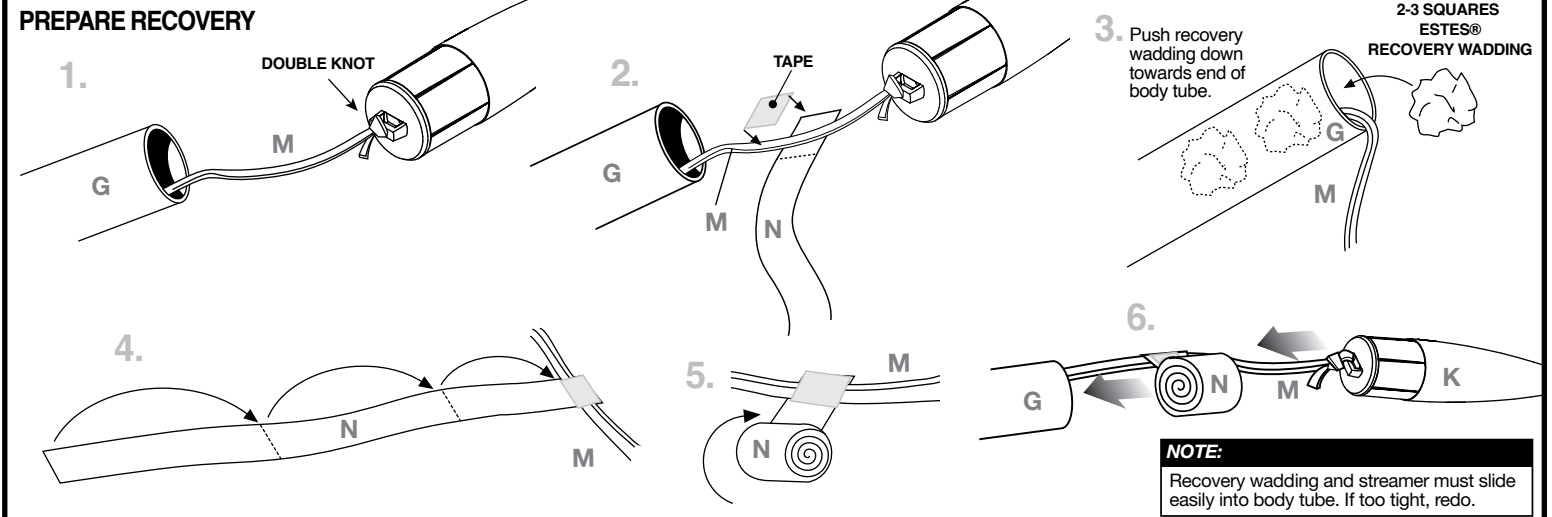
Spray rocket with white primer, let dry & sand. Repeat until rocket is smooth, then paint. Apply decals after paint is dry.

1. Cut decals from sheet, trimming close to edge.
2. One at a time, place in warm water until decal curls and begins to relax.
3. Remove and position on rocket, sliding decal away from backing material.
4. Blot with clean paper towel. Let set overnight.
5. Optional: apply protective clear coat.

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

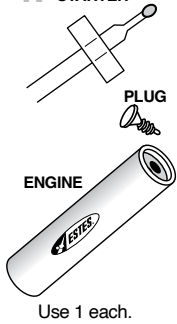


PREPARE RECOVERY

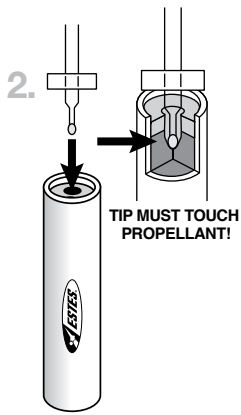


PREPARE ENGINE

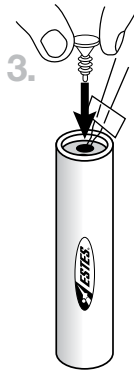
1. STARTER



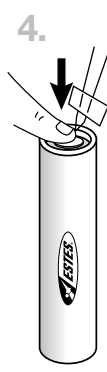
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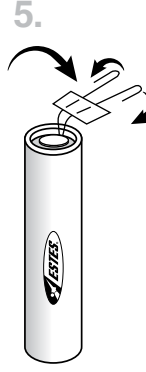
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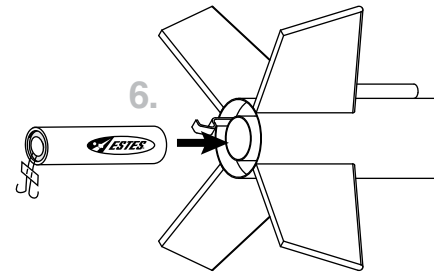
4.



5.



6.



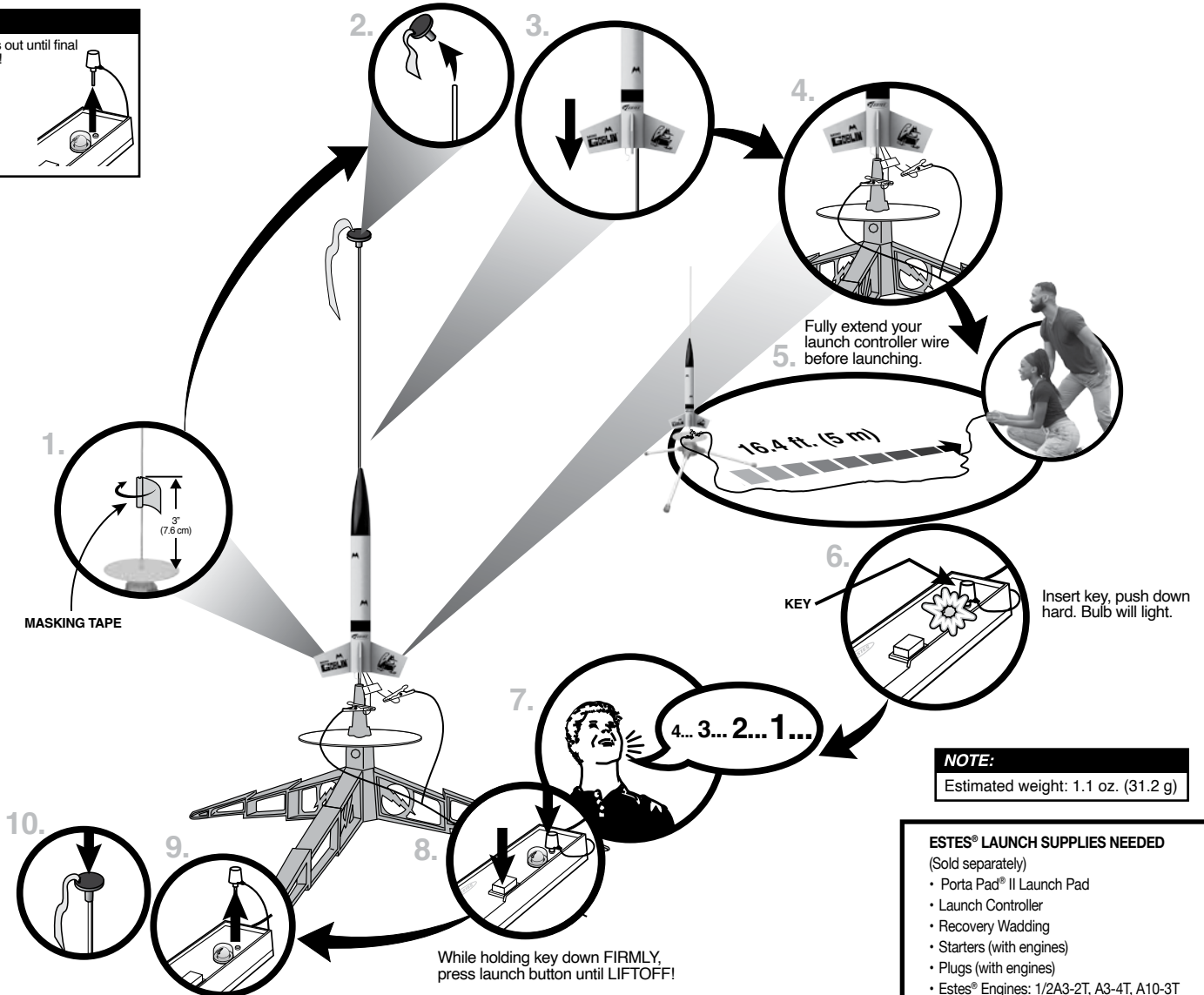
WARNING: FLAMMABLE

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:

Key always out until final countdown!



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.