

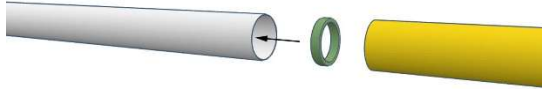


## Messenger Model Rocket Kit

Please read all instructions before assembling any parts of this rocket kit. For each step, dry-fit pieces before gluing them together, to fully understand the assembly process.

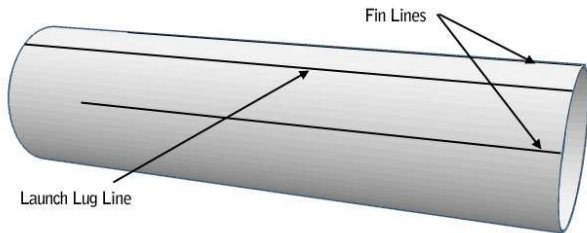
### 1. Tube Assembly

Place a ring of glue 2 1/2" (60mm) inside any end of the white tube. Using included yellow spacer push the motor block into the aft end of motor tube until the end of the spacer is flush with the motor tube. Remove the spacer quickly and discard. Allow the glue to dry.



### 2. Marking the Tube

Cut out the fin marking guide (on the opposite side). Wrap the guide around the bottom of the assembly (where you placed the thrust ring). Place a mark at the arrow heads above and below the guide. Use a straight edge (such as door frame or an aluminum angle) to draw lines along the length of the tube on the marks for fin locations. Fin lines should run up half the tube length. Extend the lug line along the entire length of the tube. You should have four lines.

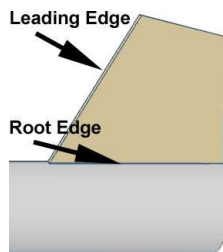


### 3. Fin Attachment

If you like your rocket to go higher - round the leading edges of all fins.

The fin should be oriented as on the picture to the right. Apply wood glue on the root edge of the fin and place it on any fin line so that the back end of the fin is flush with the tube.

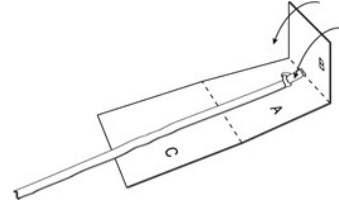
Make sure the fin is perpendicular to the tube and is perfectly straight on the fin line. Allow the glue to dry and repeat with the two remaining fins.



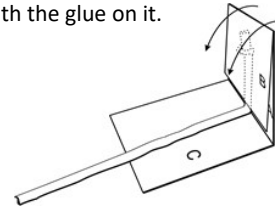
### 4. Shock Cord Attachment

The instructions in Step 4 must be done quickly. Do not wait for glue to set between steps. Read all instructions in this step now, to fully understand the process.

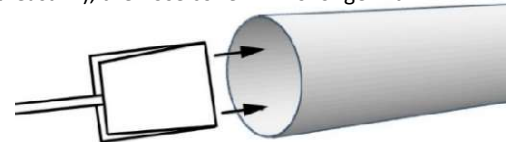
Cut out the shock cord mount (on the opposite side). Do not cut the dashed lines. Tie a large knot at the end of the shock cord. Apply a generous amount of glue to panel "A" and lay the knot on top of it. Fold panel "B" on the dashed line, onto the knot and panel A.



Spread more glue on the panel C. Fold panel B on the dashed line and down on the panel with the glue on it.

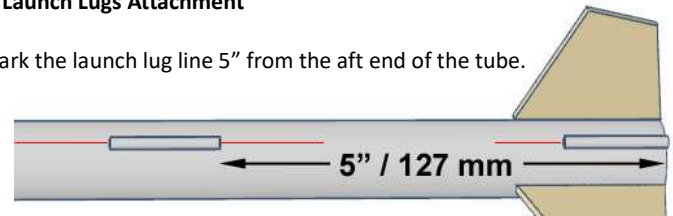


Hold this assembly between your fingers and gently apply pressure for few seconds. Apply glue to the outside of the shock cord assembly (any side) and glue it into the forward end of the tube. Let the mount take the shape of the tube and push it as far as you can reach inside, with the shock cord sticking out of the tube. If the shock cord assembly is not glued in far enough (at least 2"), the nose cone will no longer fit.



### 5. Launch Lugs Attachment

Mark the launch lug line 5" from the aft end of the tube.



Glue first launch lug at the mark and another flush with the tube. Make sure lugs are aligned. Allow glue to dry.

### 6. Painting (Optional)

Insert the shock cord and nose cone into the tube. Ensure that the model is completely dry. Wipe off any dust. Follow the manufacturer's instructions for spray painting and always spray in a well-ventilated area.

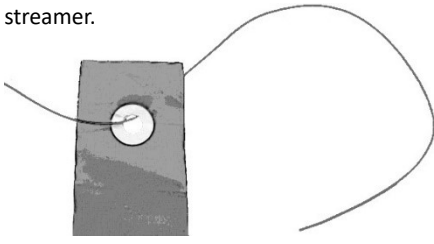
Spray a uniform base coat of white primer. You may wish to sand your model and repeat the primer coat.

Take the nose cone out of the rocket and plug the tube so that the paint will not get inside. Apply a coat of white or light grey to the entire rocket. (Applying dark colors will affect the color intensity of the "messenger" sticker"). Slightly sand the fins.

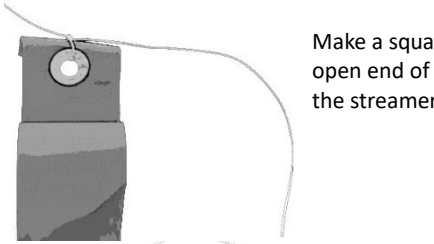
Once paint has dried, mask off the entire rocket except for three fins. (use masking tape and plastic bag). Paint the fins and the nose cone orange. Add one more coat of paint if necessary. Leave the rocket to dry overnight. Remove the masking tape.

## 7. Streamer and Nose Cone Attachment

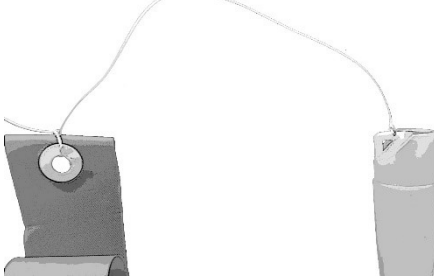
Pull the open end of the shock cord through the hole in the orange streamer.



Make a square knot about 4"-5" from the open end of the cord. Let the top edge of the streamer crimp as you tie the knot.



Securely, tie the open end of the shock cord to the nose cone. Tighten the knot.



## 8. Decal (Optional)

Find the "Messenger" self-adhesive decal. Use scissors to cut out the image. Be careful, not to scrape the surface of the decal.

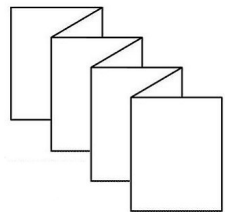
Use sharp knife to separate the backing paper from the decal. Pull the backing from the decal. Carefully place it to the rocket as on the picture, smoothing it out with your fingers.



If the decal is lifting off the tube – use hairdryer to heat it and smooth it with your fingers again (especially the edges), making sure there is no air bubbles.

## 9. Folding the Streamer

Place a rocket on the table and pull the streamer out. Fold the streamer using the "accordion fold" technique. This technique involves putting sharp folds across the width of the narrow axis of the streamer in back-and-forth "Z" shaped pleats similar to those seen in an accordion. The width of these pleats should be around 0.5 inches. When done, put something heavy on the folded streamer.



RK-1082-21

## Recommended Motors & Launch Preparation

The following motors are recommended for this rocket:  
Estes® A8-3, B6-4, C6-5

This rocket must be launched from standard 1/8" launch rod.

Insert the wadding in the forward tube opening and push it down. Next, roll the streamer (do not "accordion fold"), then feed the shock cord and rolled streamer and push it into the forward opening. Make sure the streamer is rolled tightly and can be easily pulled out of the tube. Insert the nose cone into the airframe. Make sure the shock cord doesn't get between the nose cone and the tube.

Motor needs to be friction-fit into the rocket. Wrap masking tape around the rocket engine once and push into the rocket. Add masking tape if an engine is not held securely or remove some if it would not go into the rocket without breaking it. The motor should fit tightly into the rocket to ensure it stays inside during the firing of the ejection charge.

The A8-3 motors are recommended to verify the correct operation of the rocket.

Follow instructions provided with the rocket motors and launch system to launch the rocket.

After the launch remove and discard the engine. Keep the streamer "accordion-folded" between launches.

## Model Rocket Safety

Model rocketry is a hobby that is not without risk.

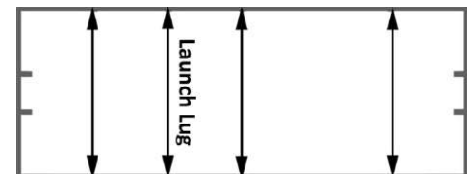
By using this rocketry product, you agree not to hold Rocketarium.com and/or Denau Hobby Supplies and its employees or affiliates liable for any damages, or injuries, caused by (directly or indirectly) use of this product.

Always follow the National Rocketry Association (NAR, [www.nar.org](http://www.nar.org)) or Tripoli Rocketry Association (TRA, [www.tripoli.org](http://www.tripoli.org)) safety rules.

## Missing or Damaged parts

If any parts are damaged or missing, or you need help understanding the assembly process - please email us at: [support@rocketarium.com](mailto:support@rocketarium.com).

## Fin Marking Guide



## Shock Cord Mount

