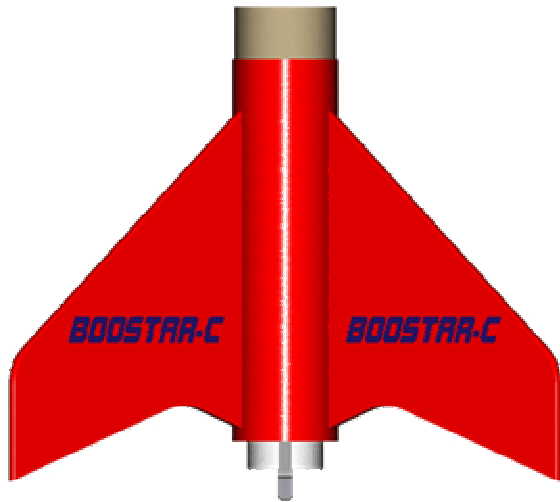


# MODEL ROCKETS.US BOOSTAR-C

## Assembly Instructions



### Parts Included:

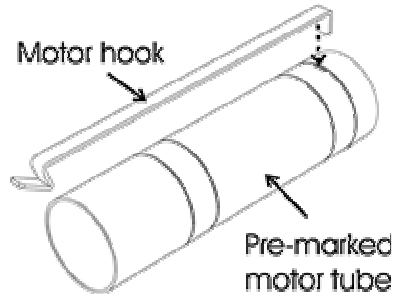
- 1 Stage Tube
- 3 Laser Cut Balsa Fins
- 1 Trust Ring
- 1 Motor Tube
- 1 Launch Lug
- 1 Motor Hook
- 2 Centering Rings
- 1 Decal Sheet

### Materials (not Included):

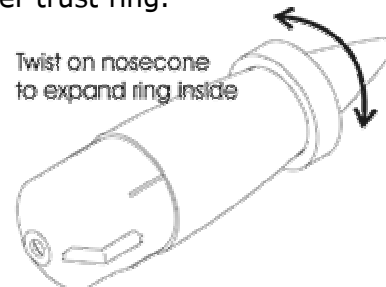
- Yellow Wood or White Glue
- Sanding Sealer
- Paint Brush
- Sandpaper (#240 grit)
- Gloss Spray Paint
- Primer Spray Paint
- Masking Tape

## Motor Mount Assembly

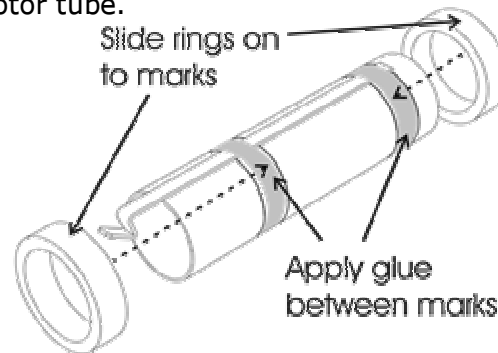
**Step 1** – Insert the flat end of the metal motor hook into the pre-cut slot  $\frac{1}{4}$ " from the end of the motor tube.



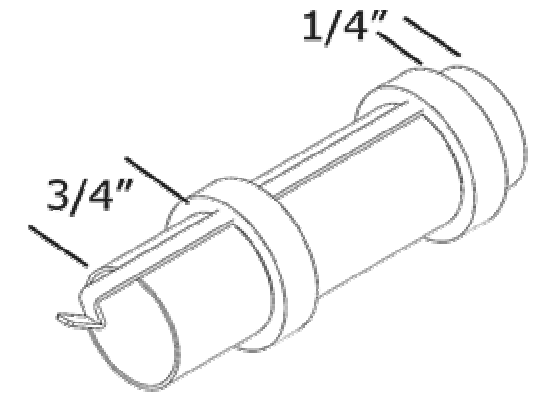
**Step 2** – Slightly expand the inside of the 2 larger centering rings by twisting on the end of the nose cone. **Important:** Don't expand the smaller trust ring.



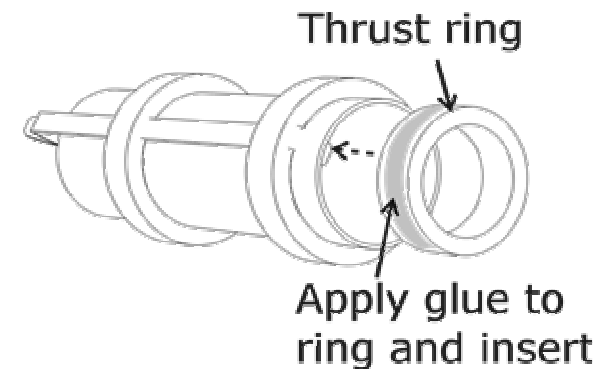
**Step 3** – While holding the motor hook in the slot, apply glue around the motor tube between the marks. Push the expanded end of the centering rings over the motor hook until the rings are between the marks on the motor tube.



The rings should be positioned as shown

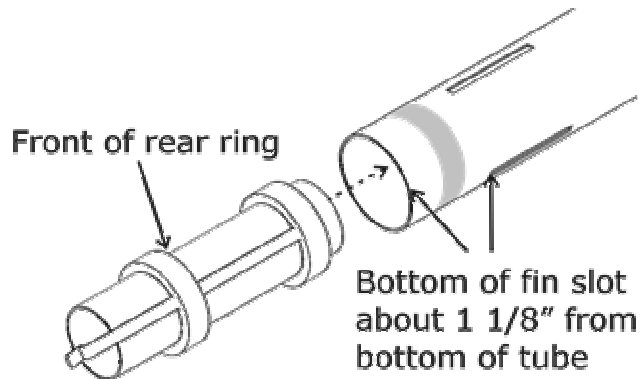


**Step 5** – Apply glue around the outside of the thrust ring and insert into the motor tube at the end where the motor hook is inserted. Push in until against the motor hook and flush with the end of the motor tube.



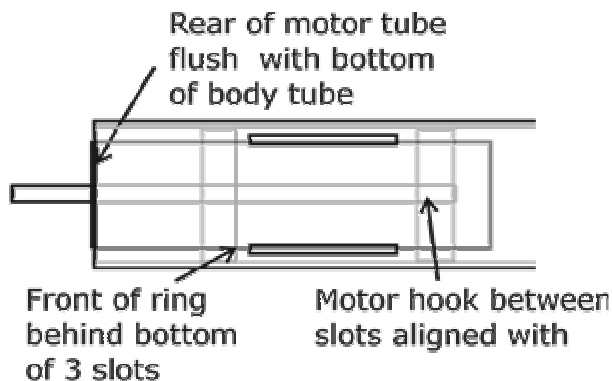
## Inserting and Attaching the Motor Mount

**Step 1** – Refer to the drawing below to locate the bottom of the stage tube by the 1 1/8" fin slot distance. Using a Q-tip or your little finger apply glue liberally around the inside end of the stage tube 1/2" in at the end opposite the motor hook.



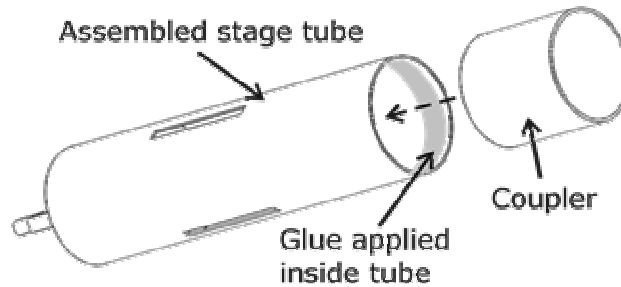
**Important:** Do the following motor mount insertion in one move. Do not stop until the motor mount is in the correct position.

**Step 2** – Insert the motor mount and push in until the bottom of the motor tube is flush with the bottom on the stage tube. Both rings should be clear of the fin slots. Clean any residue glue from the slots and set aside to dry.

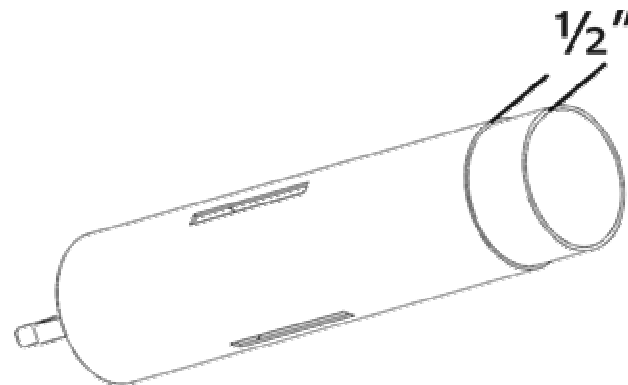


## Attaching the Staging Coupler

**Step 1** – Using a Q-tip or your little finger apply glue liberally around the inside end of the stage tube at the end opposite the motor hook.

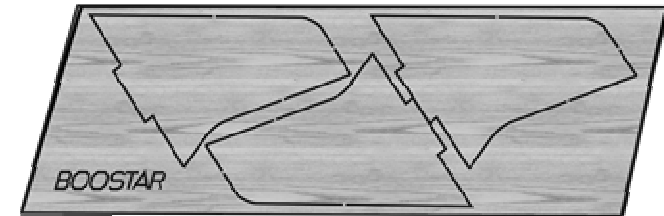


**Step 2** – Insert the coupler and push in until the end of the coupler is 1/2" from the end of the stage tube. Wipe off any glue on the coupler with a dry paper towel.



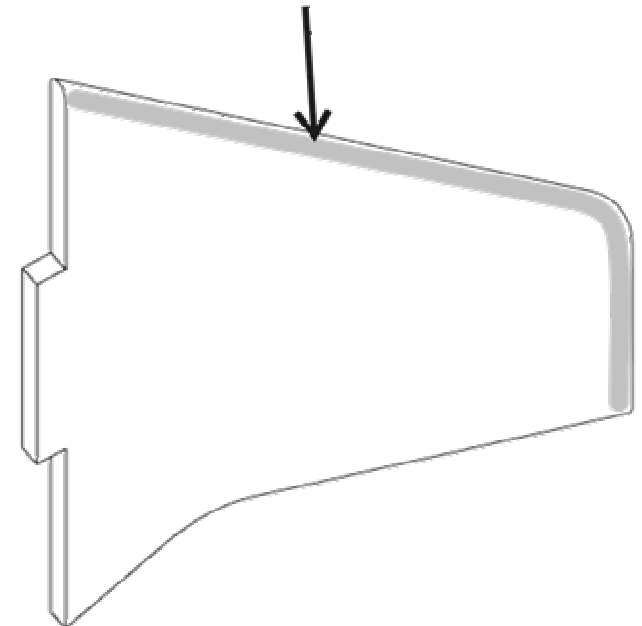
## Preparing and Attaching the Fins

**Step 1** – Press or break out the balsa fins from the laser cut sheet.

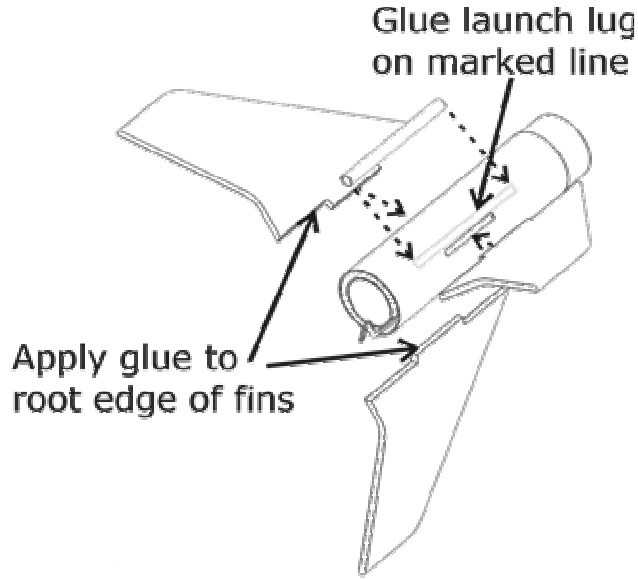


**Step 2** – Sand the leading edge and the tip of each fin round. Leave the root of the fin where it inserts and attaches to the body tube square.

Sand leading edge of fins and tip round



**Step 3** – Apply a bead of glue to the root edge on each fin and insert the root tab of each fin into the fin slots on the stage tube. The middle root edge of the fins should glue against the motor tube inside and the front and rear root edge against the stage tube outside.

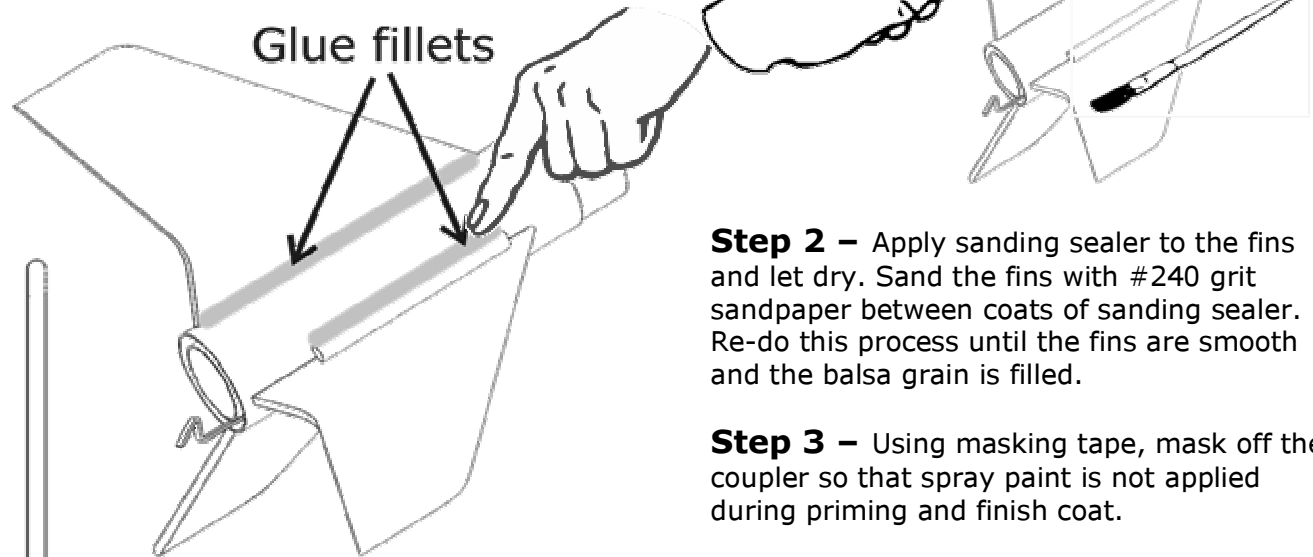


**Step 4** – Apply a thin bead of glue along the length of the launch lug and attach to the stage tube and fin where the launch lug line is marked. Allow to dry for ½ hour or more.

**Important:** Keep the fins and the launch lug aligned while drying. Make sure the fins are aligned 120 degrees apart. Use the fin guide on this page to align the fins while drying.

## Preparing and Attaching the Fins Continued...

**Step 5** – After the fins and launch lug have dried, apply a thin layer of glue between the body tube and the fins, and the body tube and launch lug with your finger to create a fillet that will strengthen the fins and launch lugs. Set aside to dry. Check the fin alignment to make sure they are 120 degrees apart while drying.

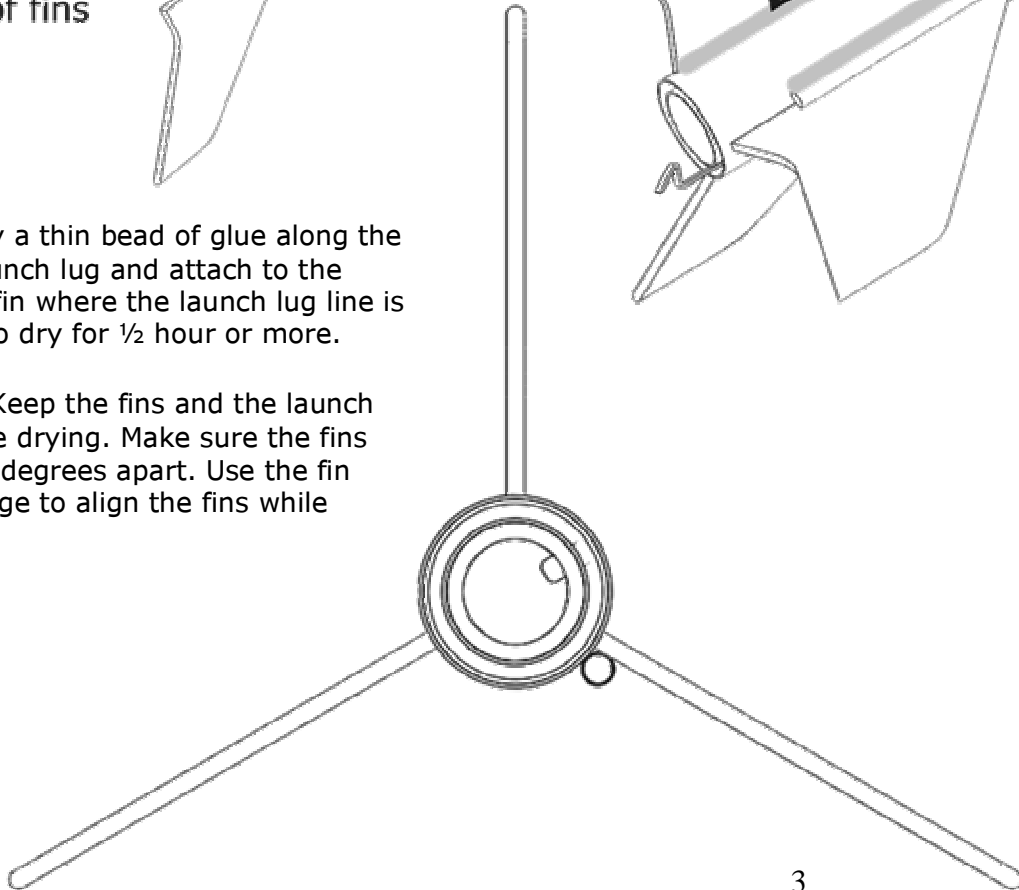
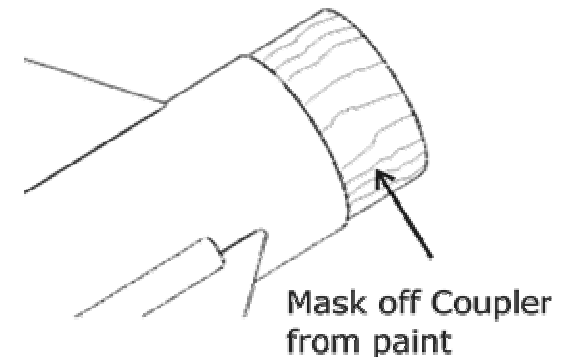


## Finishing Your Rocket (Optional)

**Step 1** – Using #240 grit sandpaper, sand the fins of the rocket lightly to remove loose grain and sand the nose cone so that the paint will stick.

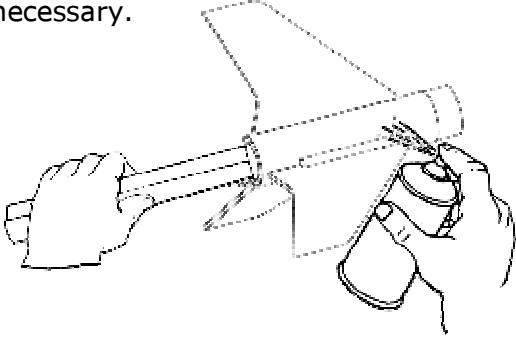
**Step 2** – Apply sanding sealer to the fins and let dry. Sand the fins with #240 grit sandpaper between coats of sanding sealer. Re-do this process until the fins are smooth and the balsa grain is filled.

**Step 3** – Using masking tape, mask off the coupler so that spray paint is not applied during priming and finish coat.



## Finishing your rocket cont...

**Step 3** – Roll up a sheet of paper and insert into the bottom of the stage tube to hold your rocket booster, apply a thin coat of flat white or gray primer spray enamel to the whole rocket booster using even back and forth movements. Let the primer dry and sand using #240 grit sandpaper. Re-coat and sand as necessary.



**Step 4** – Apply a first thin color coat of gloss spray enamel to the whole rocket booster using even back and forth movements.

Let the first coat tack up for a few minutes. Then follow up with a heavier coat. Do not coat too heavily or the paint will sag. The best results are obtained when the color coat is just thick enough to gloss. If additional coats are needed to cover the primer with full color, re-apply after the color coat has tacked up within the first hour or wait 24 hours until the color coat is completely dry. Let the final coat dry for 24 hours.

**Step 5** – Remove the masking tape from the coupler.

**Step 6** – Remove the pressure sensitive decals from the backing paper and apply to the fins and body tube. Use the picture on the cover of this manual for a guide to decal placement.

## Flying Your Rocket Booster

The Boostar-C is designed to be a booster stage for any of the ModelRockets.us single stage rockets that use a .99" diameter body tube. This includes the following rockets:

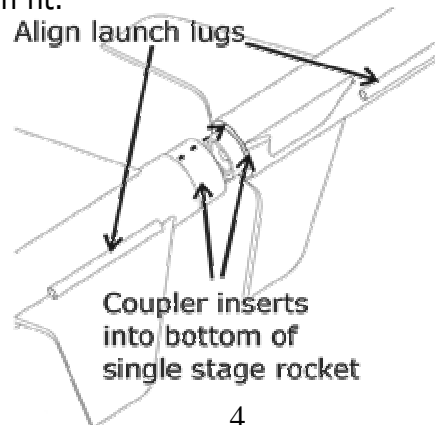
### **Centauri Rocket** **Sword Payload Rocket**

#### **Flight checklist:**

- Boostar-C Rocket Booster
- Single Stage Model Rocket
- Launch Pad & Controller w/Batteries
- Recovery Wadding
- Model Rocket Motors and Igniters

Recommended Motors:  
Boostar-C B6-0 & C6-0.  
Centauri A6-4, A8-5, B6-4, B6-6, C6-5, C6-7.  
Sword A6-4, A8-3, B6-4, C6-5.

**Step 1** – Trial fit the booster coupler into the end of the single stage rocket. If the fit is too tight sand the coupler with #240 grit sandpaper until the coupler slides in with some friction, but still can be removed. If it is too loose, add some masking tape to create a friction fit.



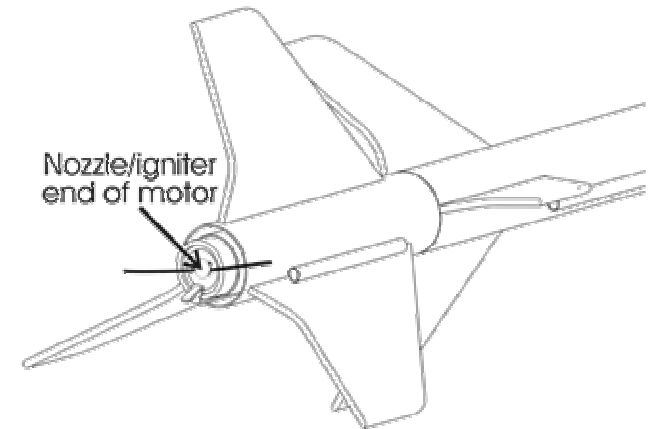
**Step 2** – Prepare your single stage rocket according to the instructions supplied with your single stage rocket kit.

**Important:** Insert the single stage motor without the igniter. The igniter will be installed in the booster stage instead.

**Step 3** – Insert the Boostar-C rocket booster all the way into the single stage rocket. Align the launch lugs of the booster stage and the single stage rocket by twisting the booster stage in the single stage rocket.

**Step 4** – Install model rocket motor igniter into the booster rocket motor according to manufacturers recommended procedure.

**Step 5** – Insert the booster stage rocket motor with the nozzle/igniter end facing the rear of the rocket. The motor should clip into place with the motor hook retaining the motor.



**IMPORTANT:** FOLLOW THE N.A.R. SAFETY CODE REGARDING LAUNCHING AND THE USE OF MODEL ROCKET MOTORS