

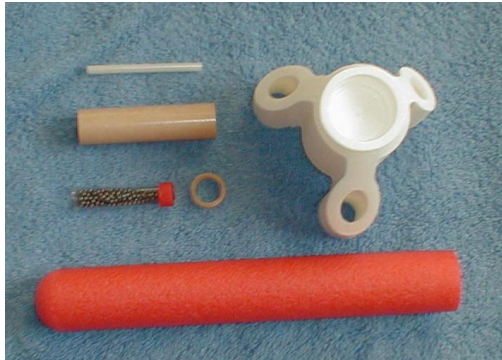
NASA "stomp" Rocket Assembly Instructions

mk-01

Conversion of an air-powered foam rocket to fly on A, B, or C model rocket motors
With amazing BOINK recovery! (Bounce On Impact, No Kidding)

Parts

Red & white foam stomp rocket (Ax-Man)
Motor mount tube (bt20, 2.75" long)
Motor thrust block (eb20)
1/8" launch lug (at least 1" long)
Approx. 1/2 oz of nose weight



Needed

Hobby knife
Masking tape
White glue (or epoxy)

Optional

Needle-nose pliers
1" by 10" streamer
3" piece of steel fishing leader

Instructions

- 1. Glue the thrust block flush into one end of the motor mount tube. (This becomes the front end of the motor mount.) Set aside to dry for a few minutes.



- 2. Using your hobby knife, cut out the forward end of the center of the white foam fin unit. The hole needs

to be large enough for the motor mount tube to fit through it.



- 3. About 1/2" up from the bottom end of the motor mount tube, wrap a ring of masking tape. Make the ring thick enough that it's a snug fit in the central hole of the white fin unit.

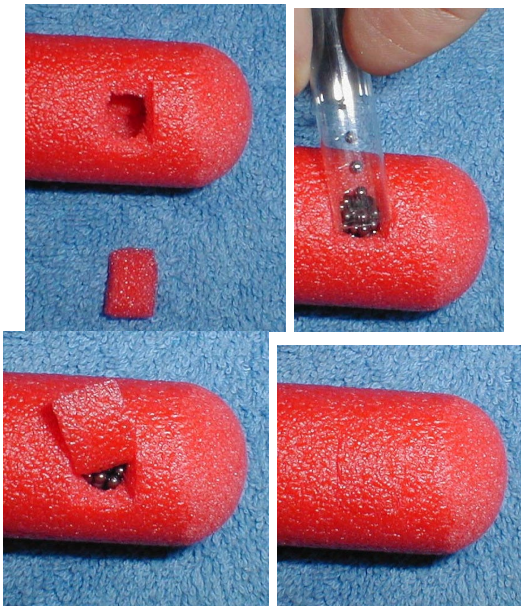


- 5. Look at the bottom (flat) end of the cylindrical red foam body unit. You need to use your hobby knife to hollow out a round hole about 3/4" deep. Be sure not to cut through the sides! A needle nose pliers is useful to pull out the chunks of foam that you carve away with your knife. Check that your motor mount tube fits in this hole.



- 6. **This rocket REQUIRES nose weight to fly safe and stable.** You may add nose weight using several different methods.

- 6a. Method 1. Using your hobby knife, cut a pyramid or wedge shaped piece out of the red body unit up near its rounded nose. Save this “hatch” piece, you’ll glue it back in later. Behind where you cut out the hatch, carve out an open chamber big enough to hold the nose weight. A needle nose pliers is useful to pull out the chunks of foam that you carve away with your knife. Put the weight in the chamber. If necessary, add some glue to hold it in place. Now, glue the hatch piece back in place. If done well, it’s hard to even see it!

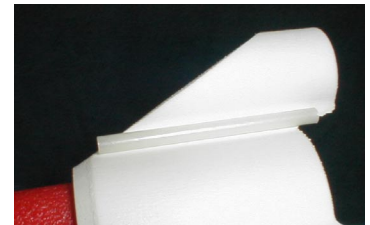


- 6b. Method 2. (not shown) Using your hobby knife, completely and carefully cut off the round nose of the red body unit. Save this piece, you’ll glue it back on later. Hollow out a chamber in the center of this end of the red body unit. Put the weight in the chamber. If necessary, add some glue to hold it in place. Now, glue the round nose back on to the rest of the body.

- 7. Smear plenty of glue around the inside of the central hole of the white fin unit. Now take your motor mount tube and insert it (the end with the thrust block first!) into the fin unit. Push it in until only about 1/8” of the motor mount tube is left sticking out the bottom of the white fin unit. Set aside to dry for a few minutes.



- 8. Take the launch lug and glue it onto the white fin unit. It’s easiest to glue it at one of the joints between a fin “pod” and the main body. Make sure that it’s on straight!



- 9. Check the fit of the red body into the top of the white fin unit. Keep a finger on the motor mount tube to make sure it doesn’t get pushed out of place. Make sure that the red body seats all the way into the white fin unit. If it doesn’t, enlarge the hole you made in the bottom of the red body for the motor tube.



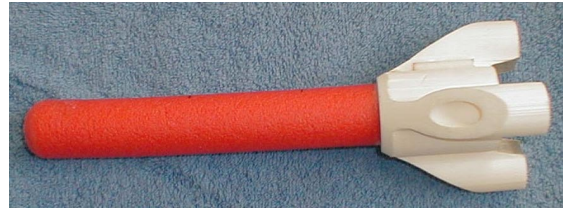
- 10. Spread glue around the top inside of the white fin unit, on the bottom end and sides of the red body tube, and inside the hole in the red body tube. Glue the red body into the white fin unit. Again, keep a finger on the end of the motor mount tube to make sure it doesn't get pushed out of place. Your rocket is complete! Set it aside to dry overnight before flying it for the first time.

Recommended motors: anything A, B, or C; any delay time or even just use zero delay booster motors. This rocket flies great on B6-4's.

WARNING! By design, this rocket ejects the used motor casing during flight. You should watch the casing fall so that you can go and pick it up. The used casings are hot; do not fly this rocket in places where the casing could fall into anything flammable or where it could injure people or property.

Option. (The Mike Martens idea) Put tape over the front holes of the three fin pods. Take a 1" by 10" streamer and attach a short piece of stainless steel fishing leader to it. Tape the other end of the leader around the bottom of the rocket motor. Roll up the streamer and tuck it inside the back hole of one of the fin pods. Now, when the motor pops out, it has a streamer attached to it. This slows it down and makes it easier to find.

Friction fitting. You should put just enough masking tape on the motor that it doesn't fall out of place on the launch pad but can be kicked out during flight without "blowing apart" the rest of the rocket.



The recovery of the rocket is, of course, by bounce...

