

I-100TH SCALE LITTLE JOE II BUILDERS KIT

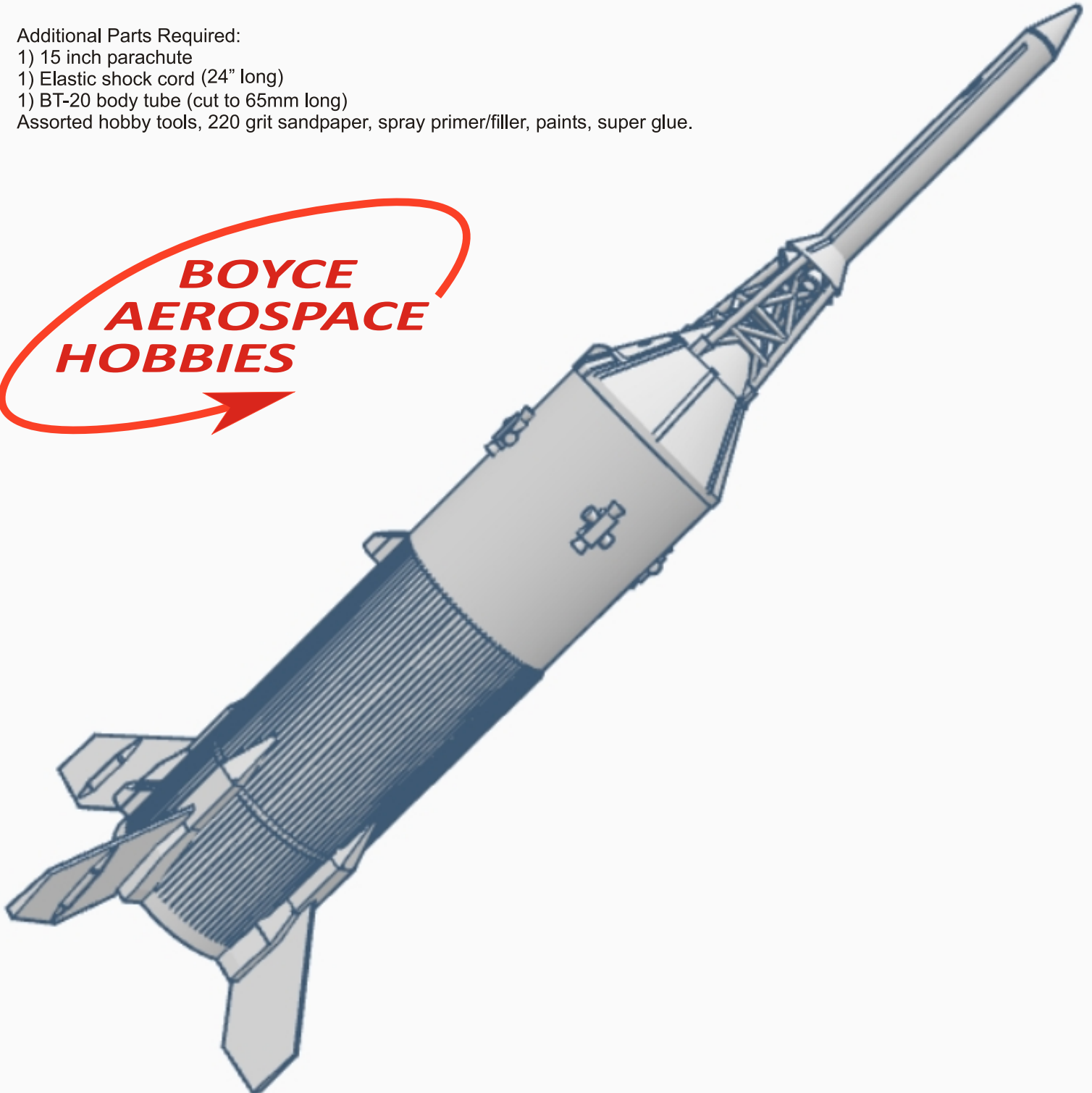
DISCLAIMER - *The products sold by Boyce Aerospace Hobbies are intended for display and/or flight with use of explicitly stated model rocket motors. Launching of model rockets may be dangerous; use our products at your own risk. Boyce Aerospace Hobbies is not responsible for any damages or injuries incurred from the use or misuse of our products. Our kits are not intended to be modified or used with motor sizes different than stated. The product should be purchased by an adult and if used by a minor, under the supervision of a parent at all times.*

Additional Parts Required:

- 1) 15 inch parachute
- 1) Elastic shock cord (24" long)
- 1) BT-20 body tube (cut to 65mm long)

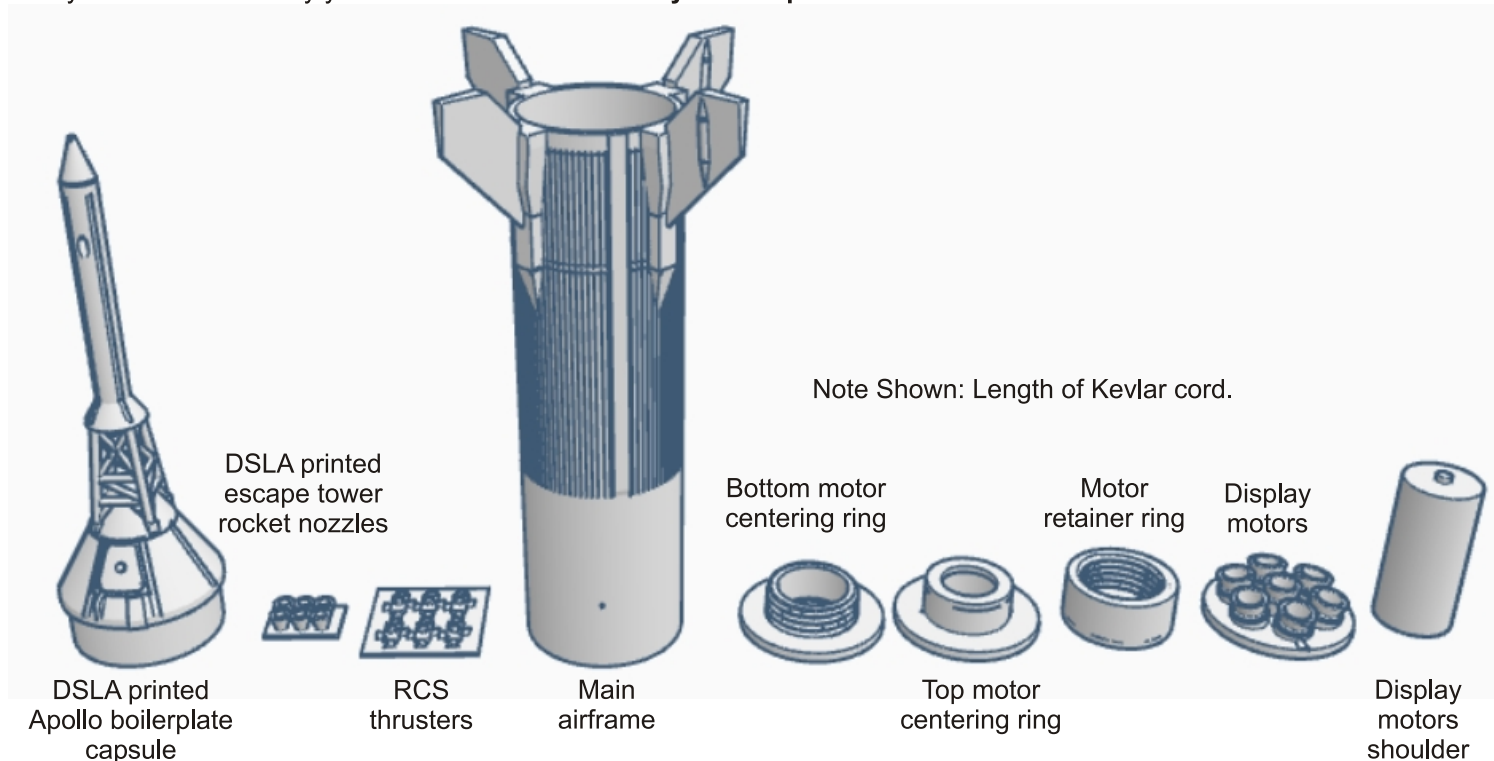
Assorted hobby tools, 220 grit sandpaper, spray primer/filler, paints, super glue.

**BOYCE
AEROSPACE
HOBBIES**

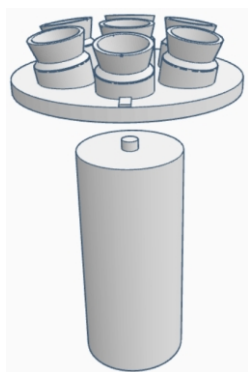


1/100th Scale Little Joe II Flying Model Rocket

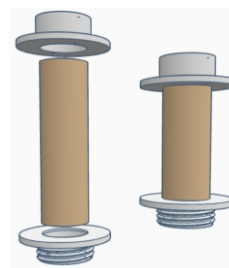
Thank you for purchasing a Boyce Aerospace Hobbies 1:100th scale Little Joe II Builders Kit. Please read all directions carefully before you assemble and fly your model. Visit us at: boyceaerospacehobbies.com



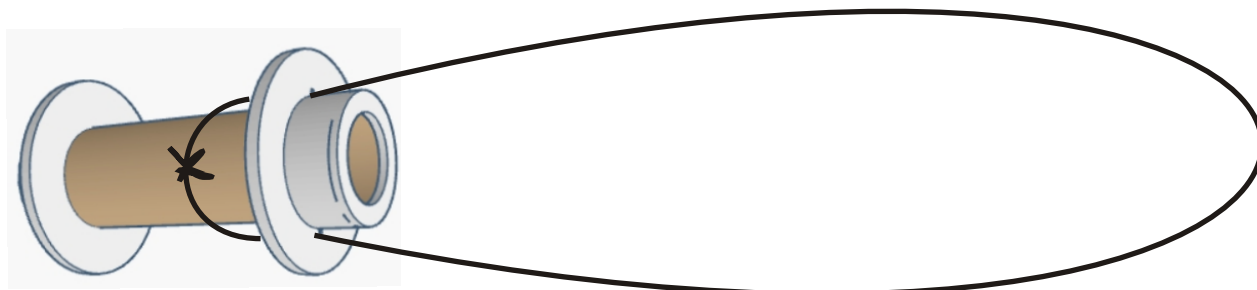
1
Super glue the display motor bulkhead to the shoulder.



2
Cut a length of BT-20 to 65mm in length. Super glue the top motor centering ring fully onto one end of the tube and then glue the lower centering ring to the other end of the tube. Make sure that the end of the threads are flush with the end of the tube. Sand the inside of each centering ring prior to gluing for a good fit.



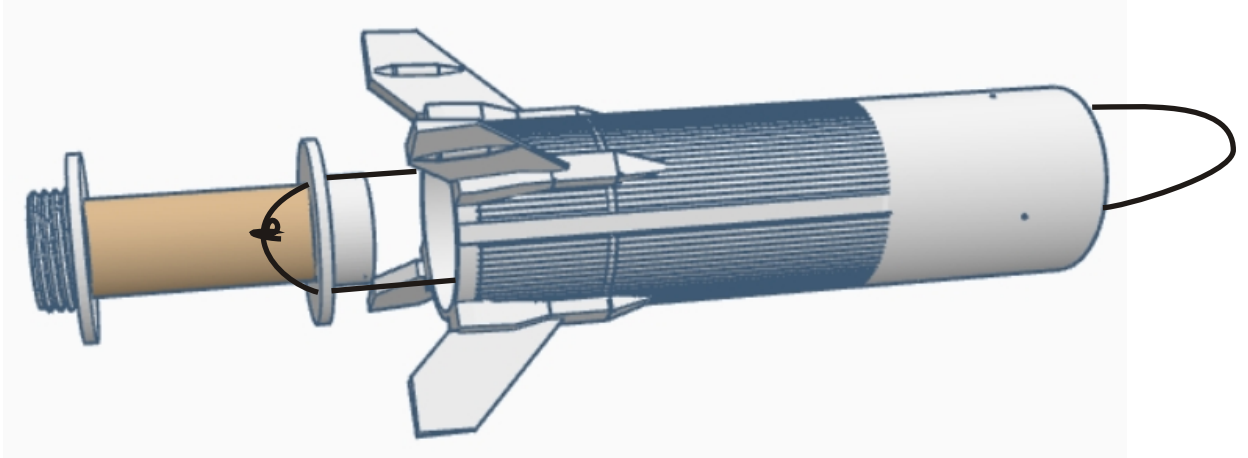
3
Open up the small holes that go through the top centering ring using a small drill or the tip of a pointed exacto knife. Feed the length of Kevlar cord through the centering ring and tie the ends together in a knot as shown below. Super glue the knot so it will not come apart.



1/100th Scale Little Joe II Flying Model Rocket

4

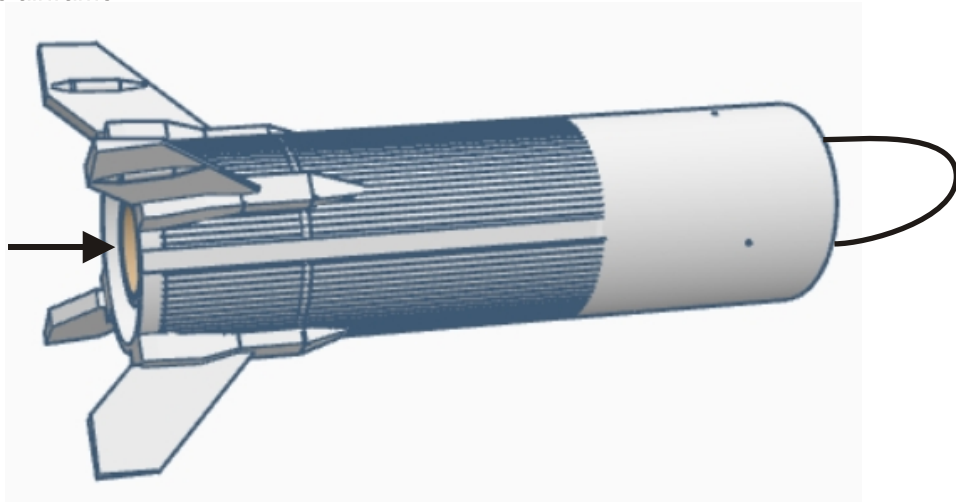
Test fit the motor mount as shown. Sand the inside of the airframe and the centering rings on the motor mount until you have a good slide fit inside the airframe.



5

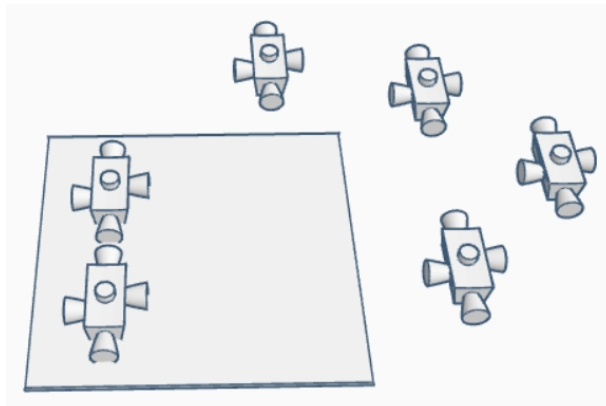
Recess the motor mount into the airframe until its bottom edge is 2.5mm inside the base of the airframe tube. Turn the assembly so that super glue can be dripped into the joint between the airframe and the lower centering ring. Use a rotating motion to roll the glue all the way around the joint. When dry, flip the assembly over and drip superglue into the airframe in order to glue the top centering ring to the inside of the airframe.

Recessed 2.5mm



6

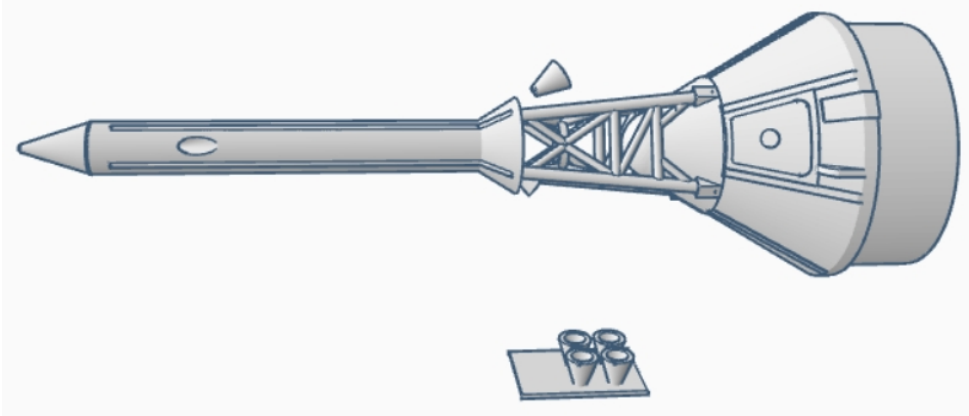
Slide a sharp hobby knife under the RCS thrusters and remove them from the raft. Pick the four best sets and sand/file the thrusters in preparation for paint.



1/100th Scale Little Joe II Flying Model Rocket

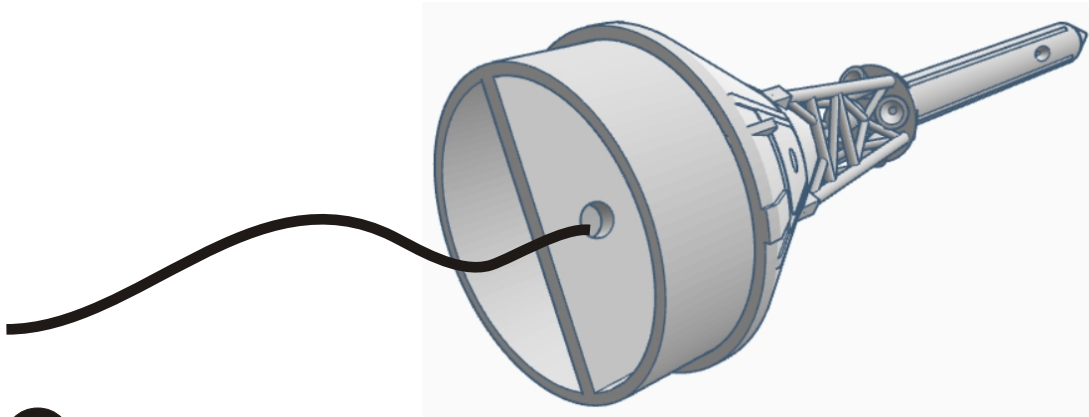
7

Remove and super glue the escape system motor nozzles in place under the escape motor skirt. Four nozzles are needed.



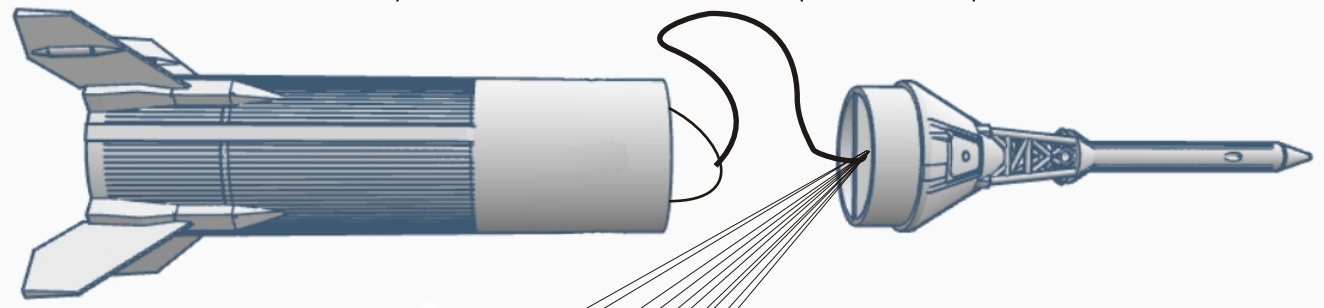
8

Attach a 24 inch length of 1/4" shock cord to the base of the capsule.

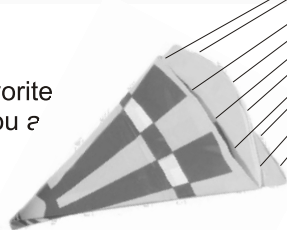


9

Attach a 15 inch parachute to the capsule and tie the end of the 1/4" shock cord to the center of the Kevlar loop in the airframe. Place the shock cord, Kevlar line and the parachute inside the airframe and position the capsule on the model.



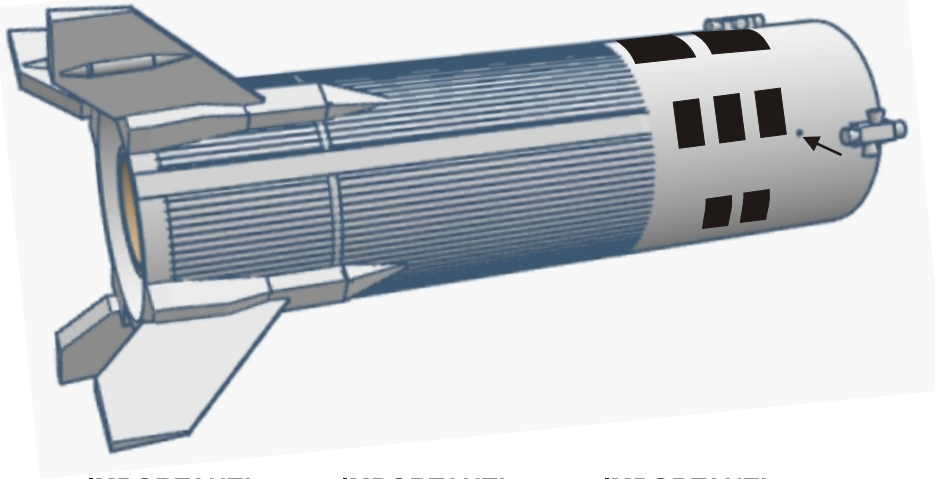
Finally attach your favorite 15 inch parachute and you are ready for finishing!



1/100th Scale Little Joe II Flying Model Rocket

10

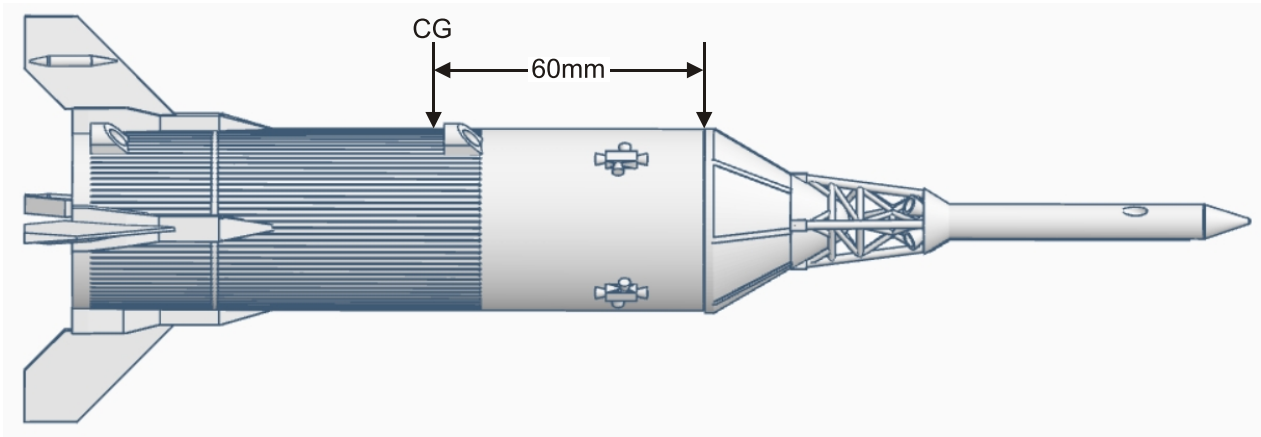
Using a small drill or the tip of an exacto knife to open up the holes in the airframe until the mating pins in the RCS thrusters fit into the four holes around the top of the airframe. Sand the complete airframe with 220 grit sandpaper to remove the 3D layer lines. Paint the airframe white and silver as shown on the last page of the instructions. When dry, apply the upper airframe roll pattern and the UNITED STATES decals. When the decals are dry super glue the pre-painted RCS thrusters in place. Finally clear coat the airframe with clear acrylic spray.



11

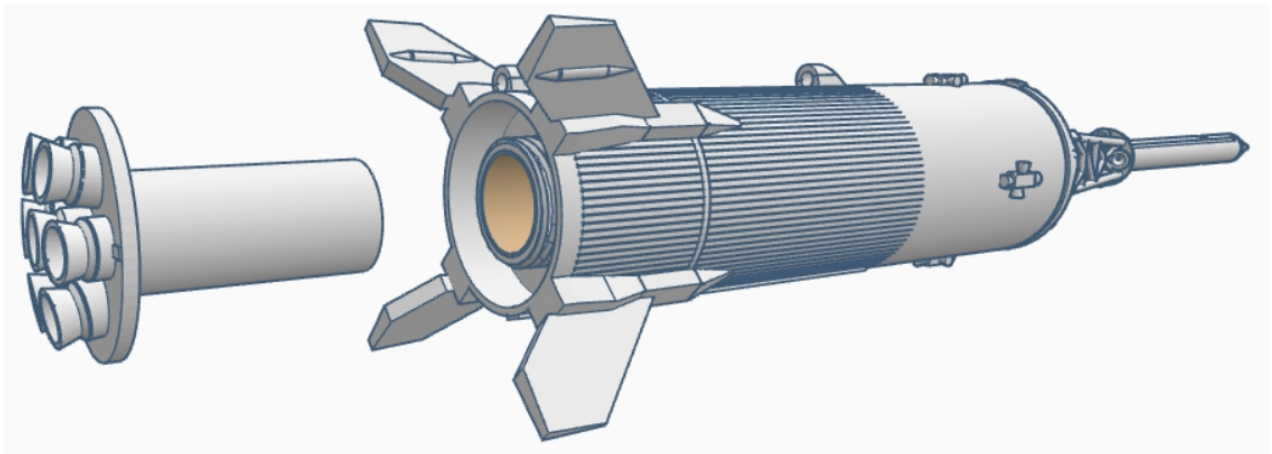
IMPORTANT! IMPORTANT! IMPORTANT!

Put an 18mm C6-5 rocket motor in the model then screw the motor retainer in place. Add clay to the inside nose of the capsule until the model balances at the required center of gravity (CG) as shown below. Failure to do so will result in an unstable flight that could injure someone, damage personal property and destroy the rocket! Secure the clay nose weight in place with a small amount of epoxy brushed over the clay and capsule edge.



12

To display the model after flight unscrew the motor retainer, remove the spent rocket motor then slide the static display motor assembly in place. If the unit is too tight carefully sand the shoulder until you achieve a good snug fit. If the shoulder is too loose in the motor mount add a small piece or two of masking tape until the assembly stays in place.



1/100th Scale Little Joe II Flying Model Rocket

Finishing:

Carefully sand the model with 220 grit sandpaper then spray the model with a high quality filler primer. When dry, wet sand the model with 400 grit sandpaper then re-spray again with the primer. Continue until the model is ready to paint. Follow the diagram below for painting and decal application. We recommend applying a high quality acrylic clear coat when the model is done.

Flight Prep:

Use an Estes C6-5 motor for your first flight. Carefully insert the motor in place and screw the motor retainer in place. Insert a small amount of recovery wadding into the airframe then fold the chute and place it into the model. Place the Apollo capsule in place on the airframe tube. Install the rocket motor igniter per the manufacturers instructions. Slide the model on a launch pad with an 1/8th inch rod. Attach the ignitor to the launch system. You are now ready to check the range, countdown, and launch your rocket.

Use a software program such as ROCK-SIM to model the rockets flight if higher performance motors are used. Please follow all local laws and the NAR Model Rocketry Safety Code when flying this model. Fly safe and have fun!

