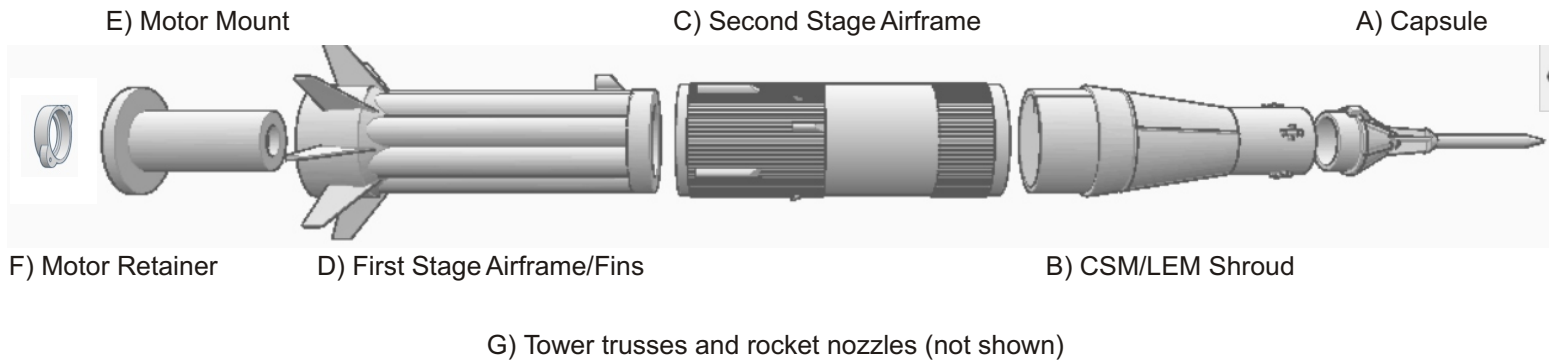


1/125th Scale Apollo Saturn 1B Flying Model Rocket

Thank you for purchasing a Boyce Aerospace Hobbies Saturn 1B kit. Please read these directions fully before you begin. All parts will be referred to in these instructions as labeled in the drawing:



You'll need the following supplies to complete your Apollo Saturn 1B kit:

50 inches of thin Kevlar cord
18 inch parachute
30 inch parachute
A short length of shock cord
Super glue or ABS glue
220/400 grit wet/dry sandpaper

Grey automotive spray primer
White spray paint
Black spray paint
Painters tape
Decal lettering "USA" in red
Epoxy and a piece of duct tape

1

Sand the following parts until they are a nice slip fit into each other. Some will glue together and others stay a slip fit:

- 1) Capsule shoulder to CSM/LEM Shroud
- 2) CSM/LEM Shroud to second stage airframe
- 3) Second stage airframe to first stage airframe
- 4) Motor mount to inside of first stage airframe
- 5) Motor Retainer to inside of first stage airframe

2

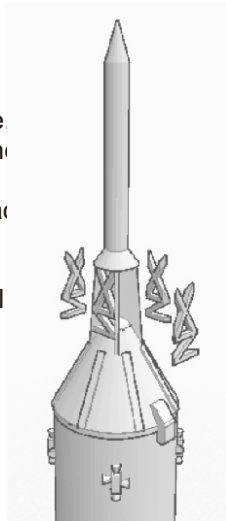
Remove the tower trusses from the "raft" by flexing the raft. If the parts are stubborn you can carefully use a hobby knife to assist in their removal. Set them in front of you with the beveled side down and in the order shown.



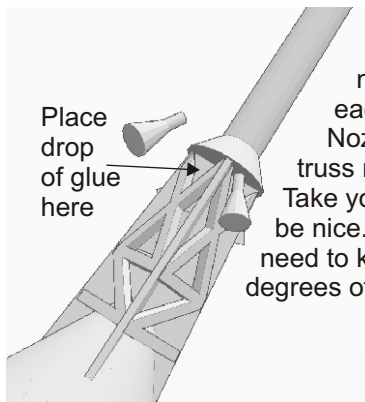
3

Using a toothpick to apply super glue, carefully align each truss **in order** and glue in place. Use tweezers or a thin strip of tape to hold the trusses in place as you glue them.

Make sure the trusses are pushed all the way to the bottom of the escape tower skirt so the rocket nozzles will fit correctly in the next step.



4



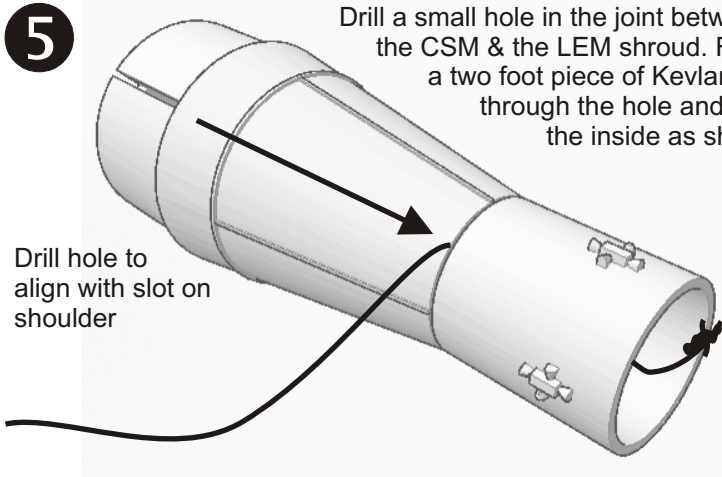
Using a toothpick, place a drop of super glue in the notch of the top truss then place each rocket nozzle in place. Each Nozzle should rest in the "V" of the truss nicely until the glue hardens up. Take your time and the end result will be nice. For those of you who really need to know the nozzles are thirty degrees off vertical.

1/125th Scale Apollo Saturn 1B Flying Model Rocket

5

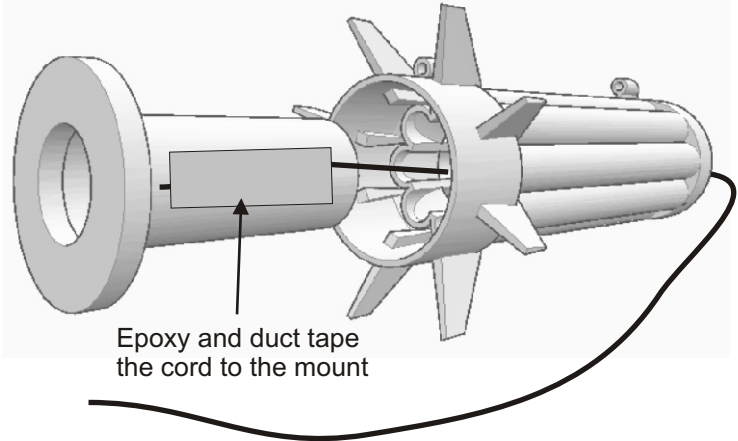
Drill a small hole in the joint between the CSM & the LEM shroud. Feed a two foot piece of Kevlar cord through the hole and knot the inside as shown.

Drill hole to align with slot on shoulder



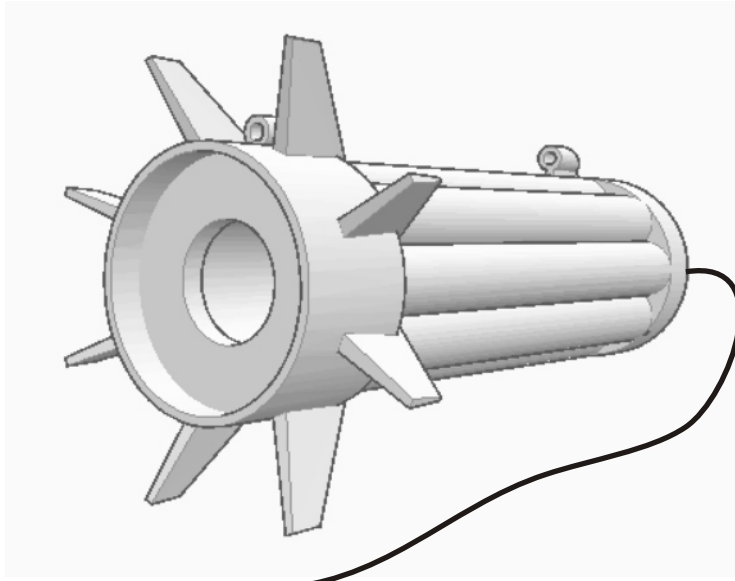
6

Epoxy a three foot length of Kevlar cord to the side of the motor mount and fish through the first stage airframe as shown.



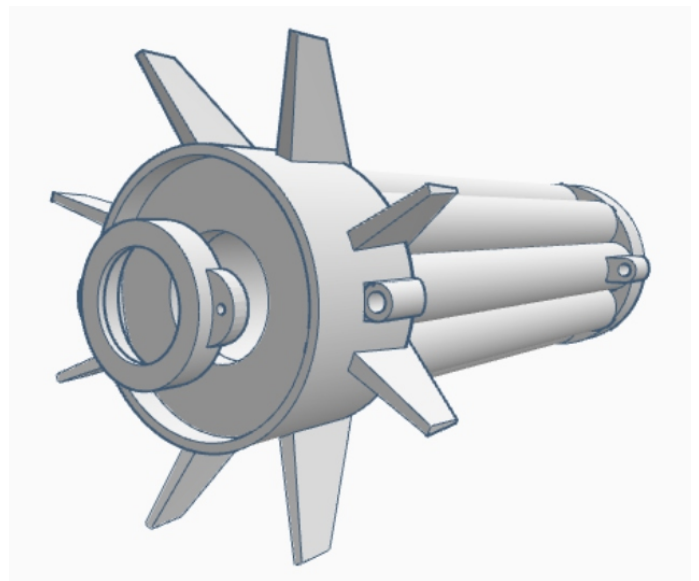
7

Insert and glue the motor mount in place. Make sure to wick glue all around the mount and airframe for a solid weld.



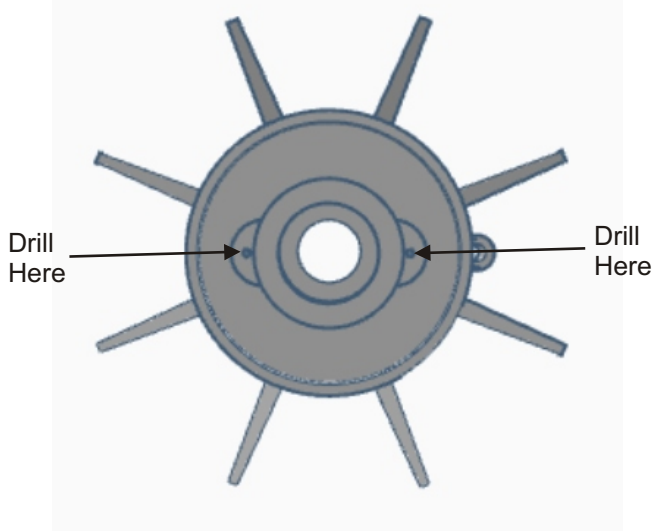
8

Align motor retainer as shown with the holes horizontal to the launch lugs on the first stage airframe.



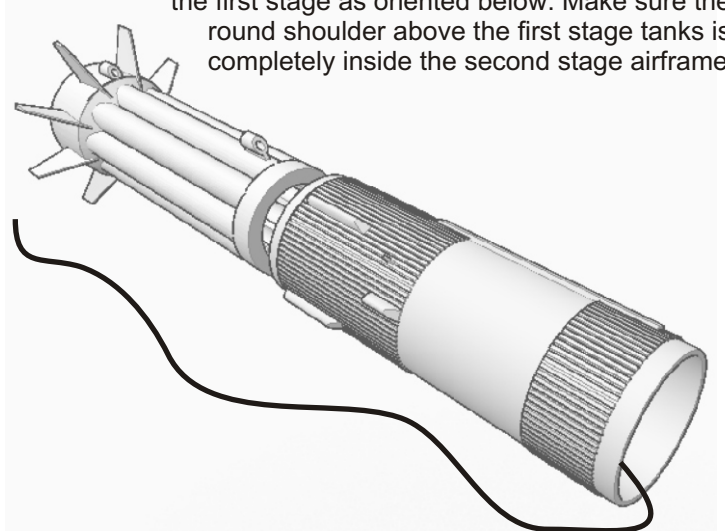
9

After aligning as shown (using a D motor), drill two small holes smaller than the size of your motor retention screws.



10

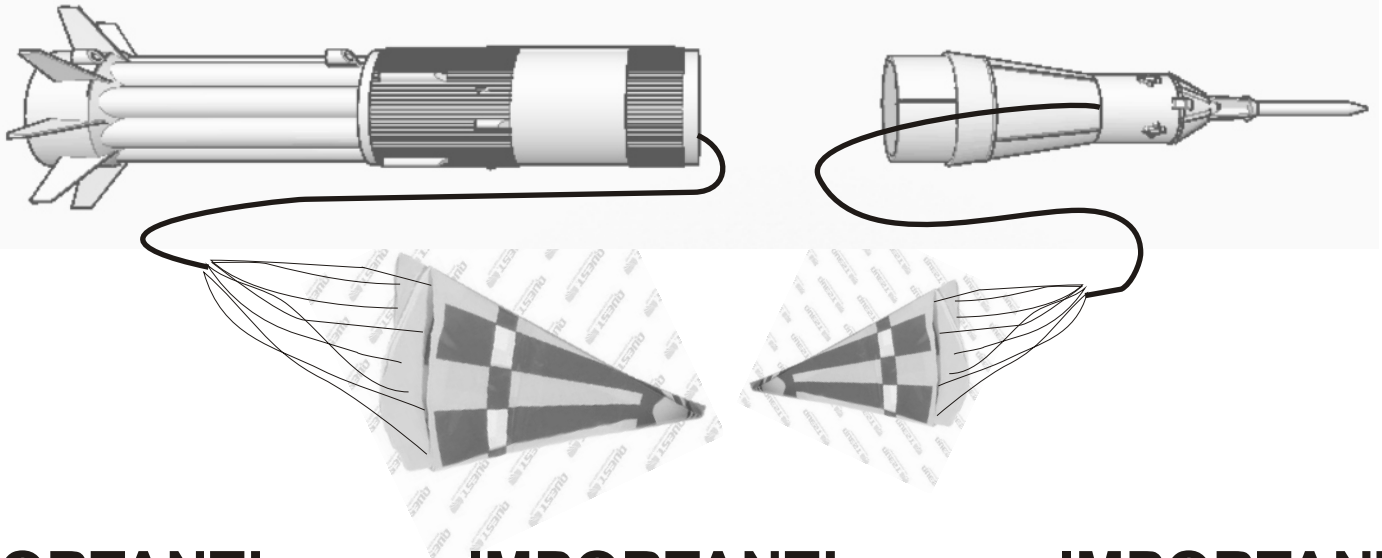
Fish the Kevlar cord through the second stage airframe and glue the second stage airframe to the first stage as oriented below. Make sure the round shoulder above the first stage tanks is completely inside the second stage airframe.



1/125th Scale Apollo Saturn 1B Flying Model Rocket

11

We're getting close to completing the assembly of your Saturn 1B kit. At this point slide the capsule onto the CSM/LEM shroud **but DO NOT GLUE!** Nose weight will be added to the inside of the capsule after the model has been completed. Attach your shock cords and parachutes to the two sections as shown below. We recommend an 18 inch chute for the top half of the rocket and a 30 to 36 inch chute for the bottom.



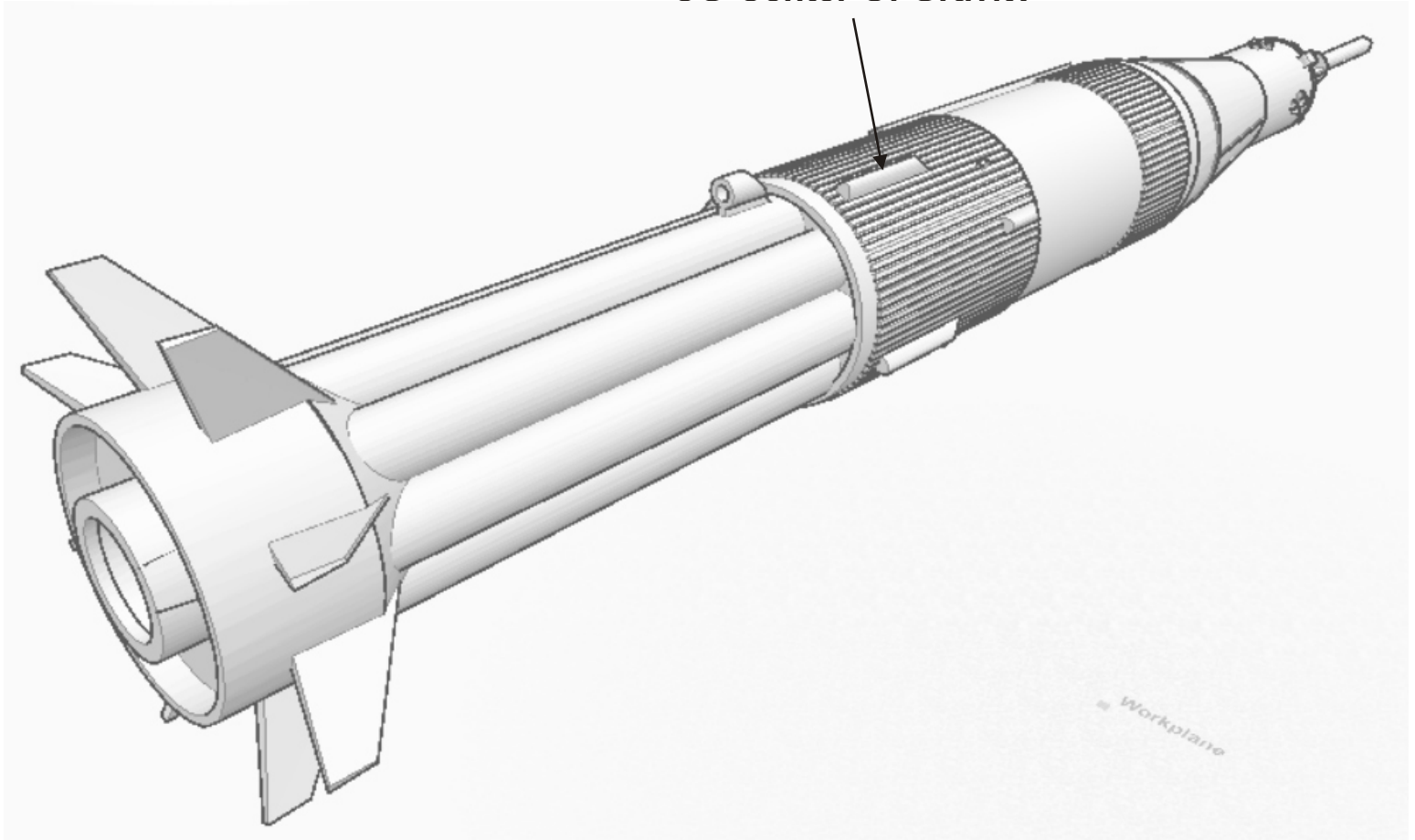
IMPORTANT!

IMPORTANT!

IMPORTANT!

Put a rocket motor in the model then add epoxy and lead weights (fishing split shot weight) 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 a unstable flight that could injure someone, damage personal property and damage the rocket!

CG-Center Of Gravity



1/125th Scale Apollo Saturn 1B Flying Model Rocket

Sand any rough areas on the capsule or airframe with 220 grit wet/dry sandpaper. Dry sand at first then follow with wet sanding until all surfaces are smooth to the touch. Give the model a nice coat of gray automotive primer and allow to dry. Repeat the sanding steps then give the model a final coat of grey primer. Follow this up with 400 grit wet sanding and you should have a nice finished surface for painting.

PAINT AND DETAIL THE MODEL AS SHOWN BELOW:

There are a ton of painting references on the web for the Saturn 1B. I printed just one photo to give you some motivation. Painting was never my strong suit so please send me some photos of your finished model....Thanks Alex.



Flight Prep:

Use recovery wadding and carefully pack your parachutes. Pack the upper half of the rockets chute in first (after the recovery wadding) then place the bottom half of the rockets chute on top of that. Doing this will insure that both chutes deploy.

Use an Estes D12-5 motor for your first flight. Use two small screw to hold the motor retention system over the end of the exposed motor to prevent it from ejecting itself when the delay charge fires.

Use a software program such as ROCKSIM 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!