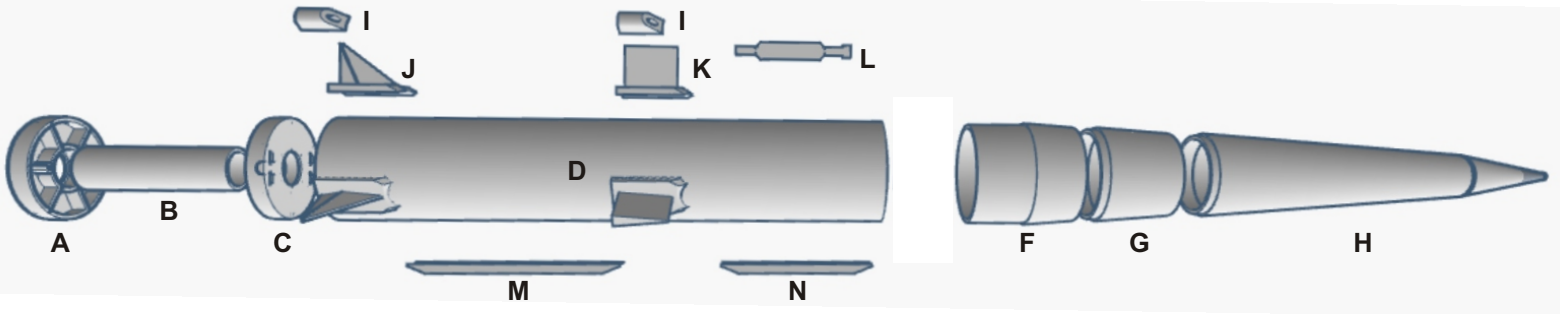


1/15th Scale Pershing 1A Flying Model Rocket

Thanks for purchasing a Boyce Aerospace Hobbies Pershing 1A kit. Please read all directions prior to beginning the assembly of your model.



A) Lower motor mount
B) Motor tube
C) Upper motor mount
D) BT-80 body tube

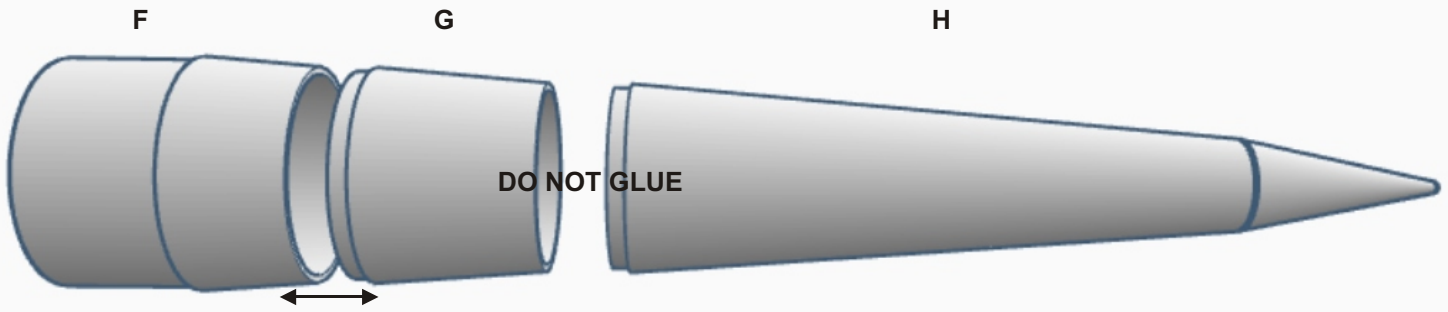
E) (no longer used)
F) Bottom nose cone
G) Mid nose cone
H) top nose cone

I) 3/16th launch lugs
J) Booster fins
K) Sustainer Fins
L) Charge retainer

M) Booster cable cover
N) Sustainer cable cover
O) Motor retention ring
(not shown)

1

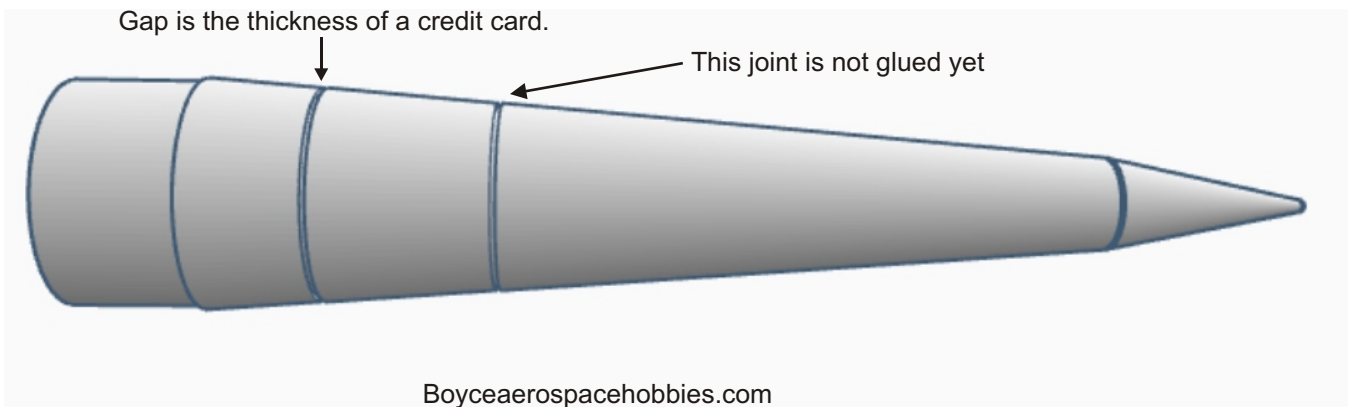
The 3 part nose cone comes preassembled but not glued together. Using epoxy glue sections "F" and "G" together leaving a gap the thickness of a credit card between them. **Do not glue on the nose cone tip, part "H", at this time.** When the model is finished nose weight will be added between assembly "F/G" and part "H" to insure stable flight.



Epoxy leaving a credit card gap between the two parts

2

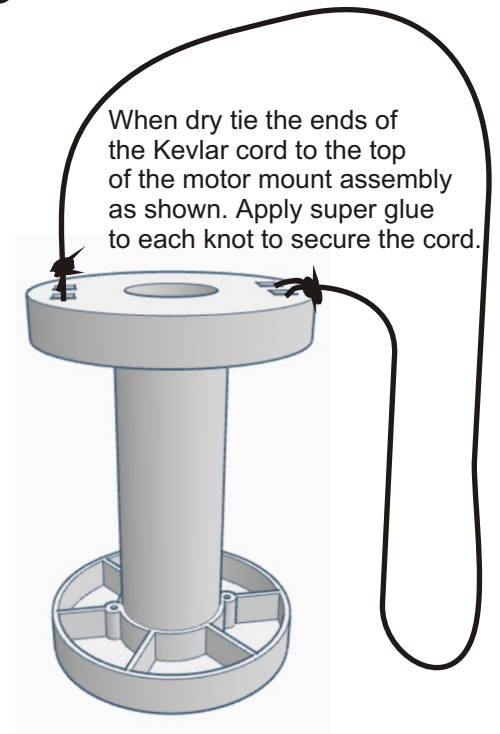
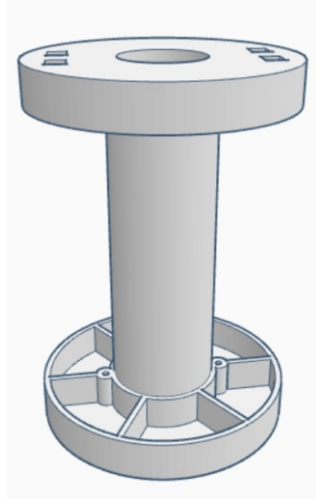
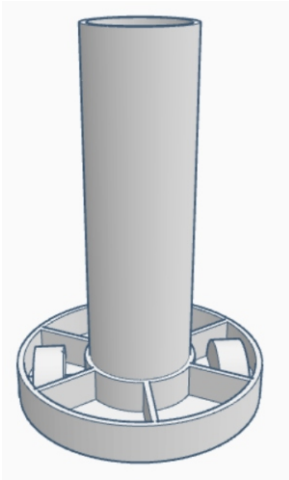
After parts "F" and "G" have been epoxied together and dried carefully sand the cone with 220 grit sandpaper dry until smooth to the touch. Do not sand the cone's shoulder unless it is too tight on the body tube. Follow with wet sanding using 220 grit sandpaper then allow the nose cone to dry. Spray the cone with grey automotive primer and allow to dry. Follow up with wet sanding using 400 grit wet/dry sandpaper. Repeat the primer/wet sanding procedure until the cone is smooth and ready to paint.



1/15th Scale Pershing 1A Flying Model Rocket

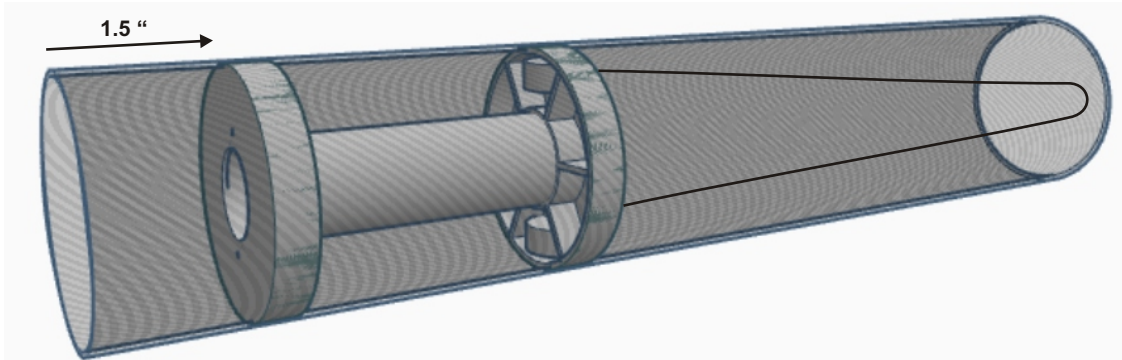
3

Place the upper motor mount flat side down on a table. Epoxy the 24 mm motor tube into the mount. When dry flip the assembly over and epoxy the other side of the motor tube into the lower motor mount until flush with the bottom of the mount.



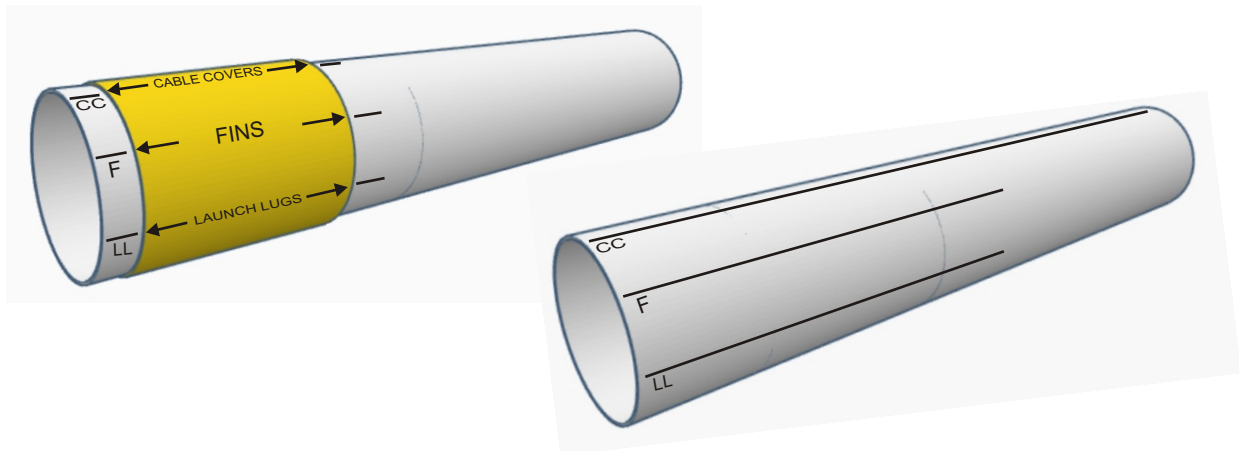
4

Sand the edges of the motor mount assembly until the unit is a smooth slide fit into the BT-80 body tube. Measure and mark a line 1.5 inches inside the bottom edge of the tube. Slide the motor mount assembly into the tube until lined up with the 1.5 inch mark. Apply super glue between the motor mount and the base of the body tube and rotate the tube allowing the glue to wick between the parts. When dry, flip the tube over and repeat the process from the top side of the tube.



5

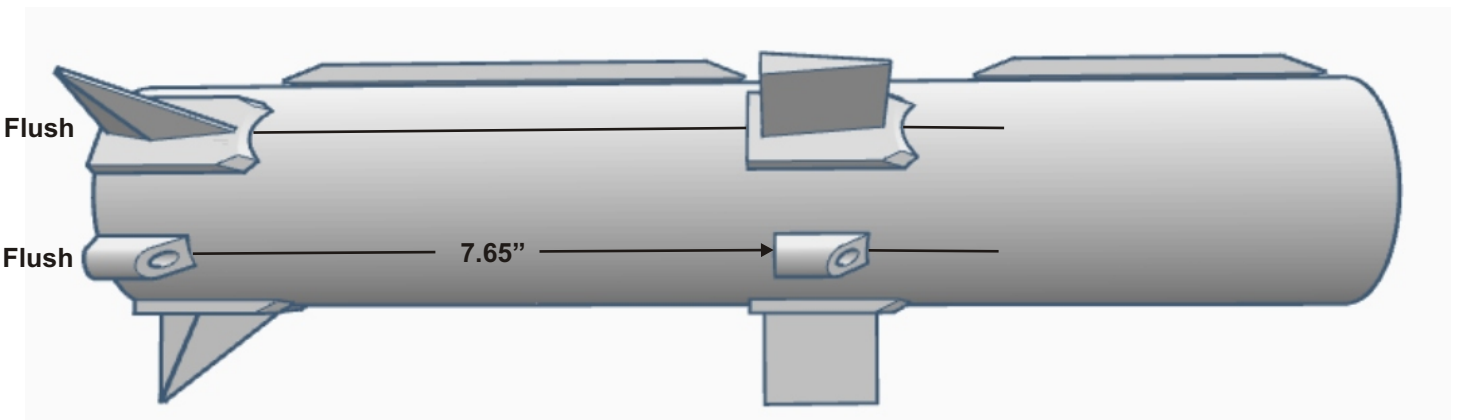
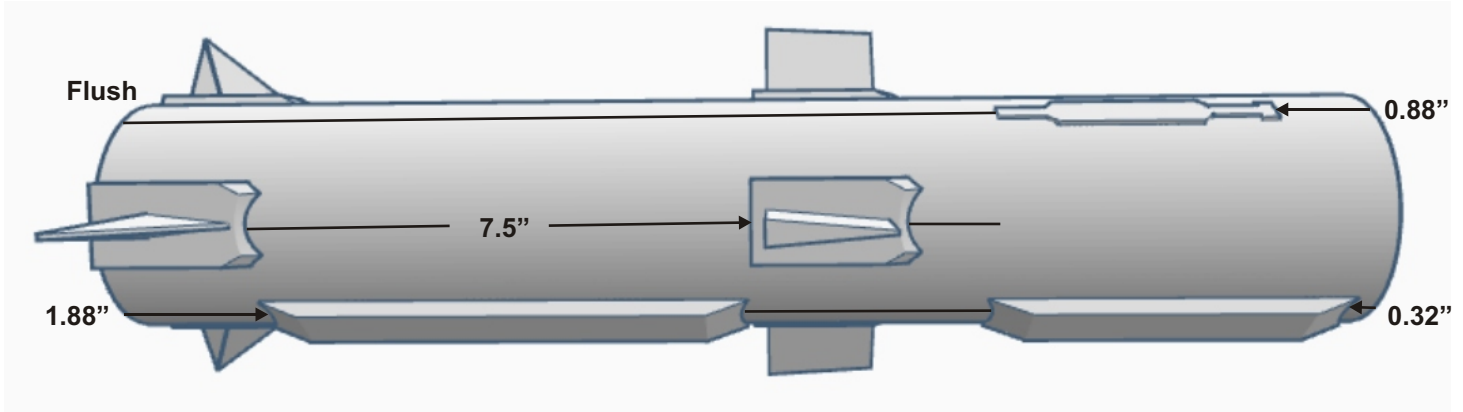
Detach the tube marking guide from the last page of these instructions. Cut the guide out and wrap it around the bottom of the body tube then taping it in place. Using a pencil carefully mark the points indicated and mark the indicator letters for each mark. (I.e. "F" for fins, "LL" for launch lugs, "CC" for cable covers, and "CR" for charge retainer. Remove the paperguide and use a straight edge to extend the lines as follows: cable covers and charge retainer extend to the full length of the tube, all other lines extend 10 inches from the base of the tube.



1/15th Scale Pershing 1A Flying Model Rocket

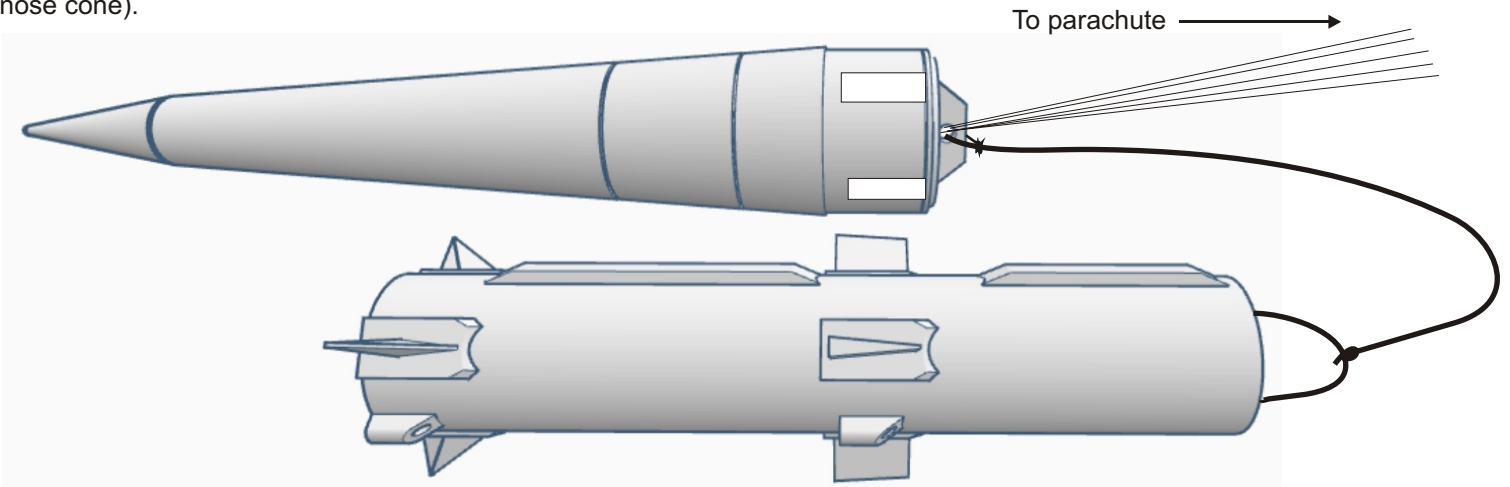
6

Mark the "F" fin lines at 7.5 inches from the bottom of the body tube. Wrap 220 grit sandpaper around the tube and sand the base of each fin to match the curve of the body tube. Super glue each booster fin flush with the base of the body tube and centered with each fin line. Next glue each sustainer fin centered on a fin line with the base of each fin lined up with the 7.5 inch mark. Center and glue all additional parts as shown below.



7

Attach the shock cord provided as shown below. Attach the parachute to the recovery system bulkhead (which is still taped to the nose cone).



1/15th Scale Pershing 1A Flying Model Rocket

8

IMPORTANT!

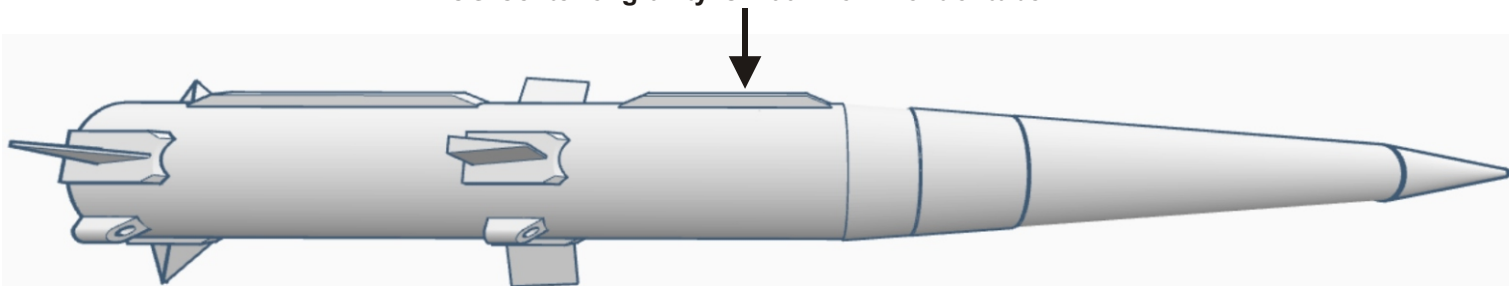
IMPORTANT!

IMPORTANT!

Put a Estes E9-4 rocket motor in the model, screw the motor retention ring on (two small screws provided, don't over tighten) then add metal washers or thin fishing weights to the space inside assembly "F/G" until the model balances at the required C.G. (center of gravity) as shown below. Note: If needed a hole may be cut into the base of part "H", the nose cone tip, in order to make more room for nose weight. When the model balances correctly mix up a small amount of epoxy and carefully pour it over the washers or fishing weights to lock them in position. When the epoxy has cured epoxy the nose cone tip, part "H", to the rest of the nose cone assembly again leaving a credit card space between the parts.

Failure to adjust the models C.G. To the position shown will result in a unstable flight that could injure someone, damage personal property and damage or destroy your model.

CG-Center of gravity is 2.00" from front of tube



9

Finishing your model:

Sand any rough areas on the model with 400 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 wet sanding only and you should have a nice finished surface for painting.

There are many paint versions of the Pershing 1A. The easiest to do is just a solid military olive green painted over the entire model. The last page of this instruction manual has pictures of just a few of the many paint scheme variations you can choose from to decorate your completed model.

10

Flight Prep:

Use recovery wadding and carefully pack your parachute. Use an Estes E9-4 motor for flight. Carefully fit the motor in place inside the motor mount tube and secure with the motor retention ring and 2 screws. Insert an electric igniter per the motor manufacturer's instructions. Please follow all local laws and the NAR Model Rocketry Safety Code when flying this model. Fly safe and have fun! Use a software program such as ROCKSIM to model the rockets flight performance if higher performance motors are used.

1/15th Scale Pershing 1A Flying Model Rocket

Different Pershing 1A paint schemes shown below:

