1-73RD SCALE DYNA-SOAR TITAN 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) BT-60 body tube (cut to 277 mm)
1) BT-50 body tube (cut to 65 mm)
1) 24” parachute
1) Elastic shock cord (optional)

Plus assorted glue, sandpaper, paint and standard hobby tools.

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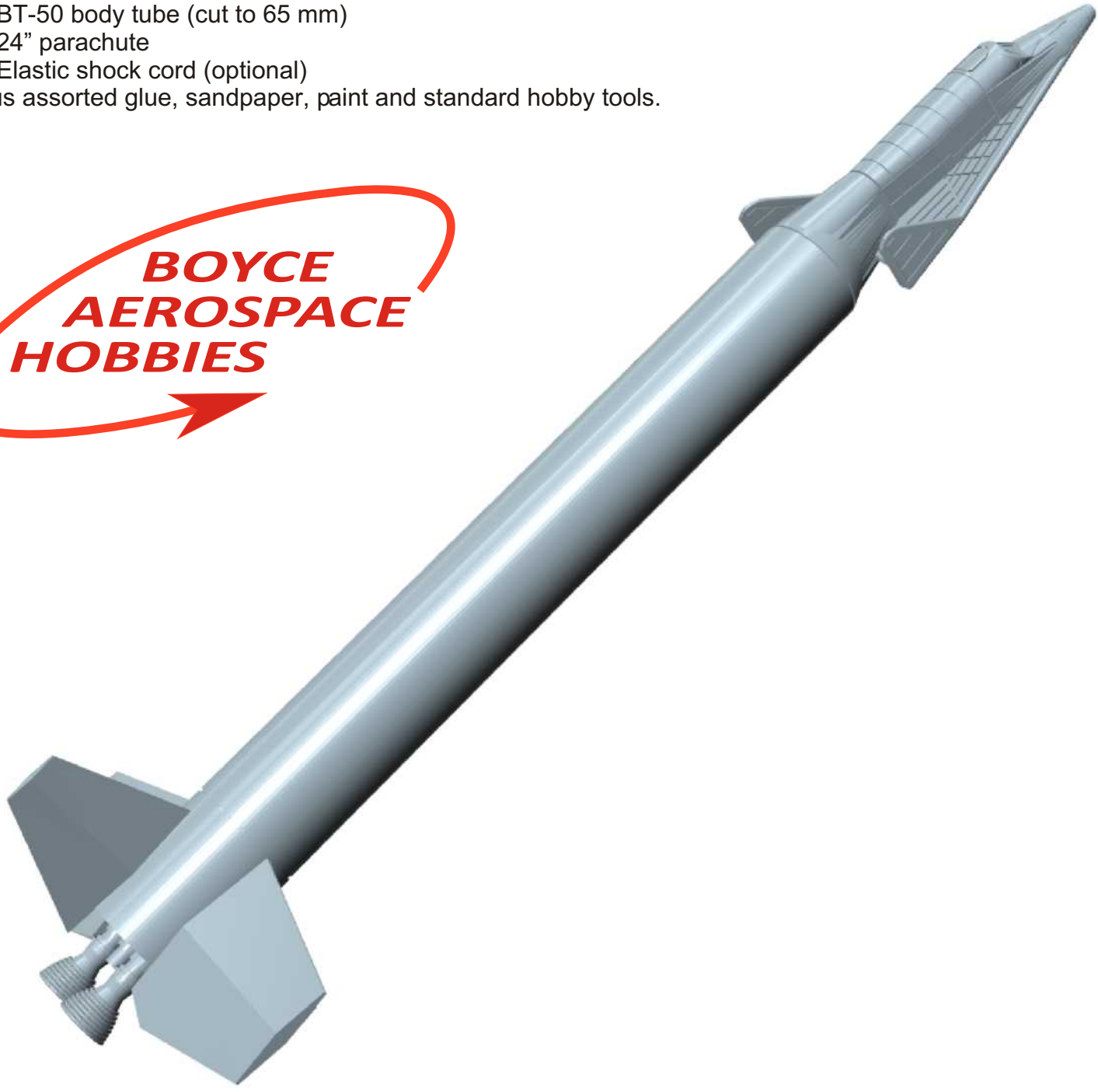
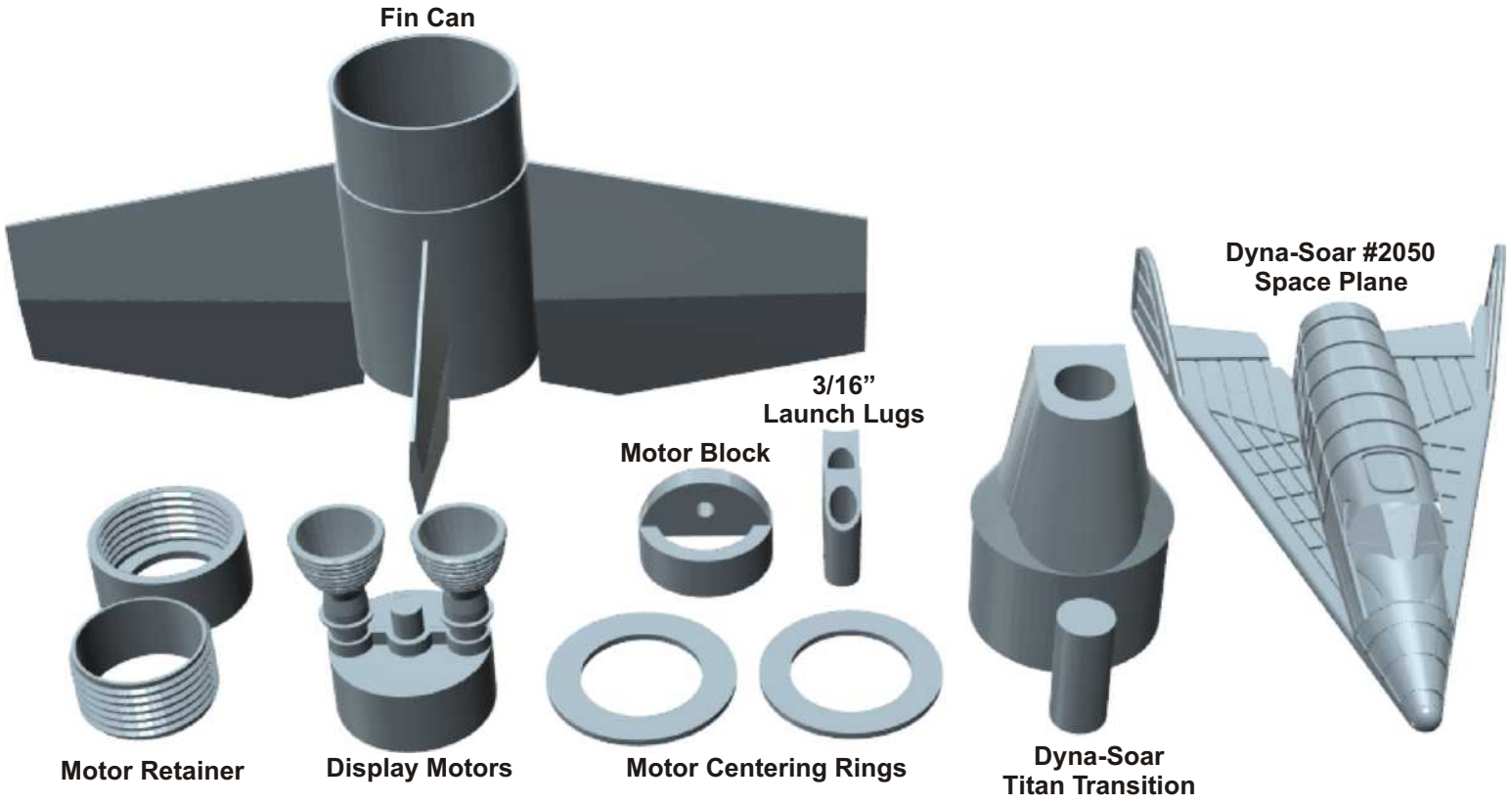


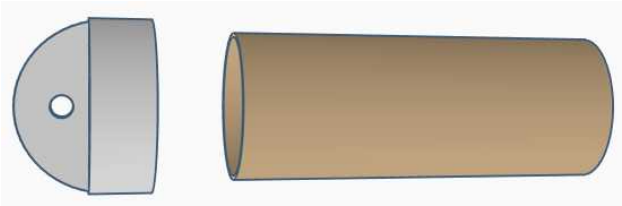
1/73rd Scale Dyna-Soar Titan II Builders Kit

Thank you for purchasing a Boyce Aerospace Hobbies Dyna-Soar Titan II Builders Kit. Visit us at: boyceaerospacehobbies.com..
Please read these directions carefully before you begin. All parts for your kit will be referred to as labeled in the drawing below.



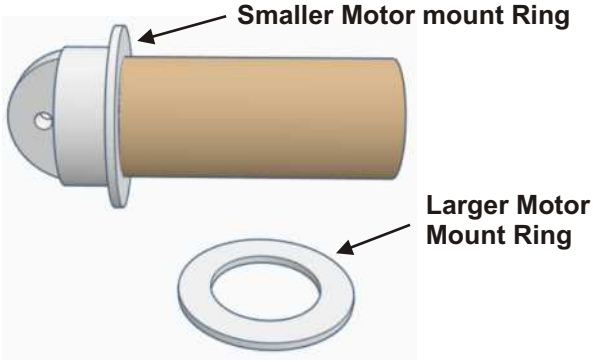
1

Cut a section of 24 mm motor tube (BT-50) exactly 65 mm long. Glue the motor block to one end of the tube.



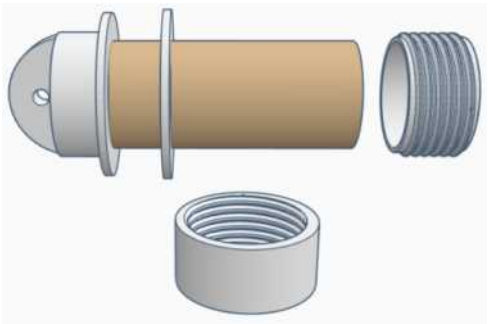
2

Test fit the smaller motor mount ring onto the motor tube. Sand as needed. Glue into place against the motor block.



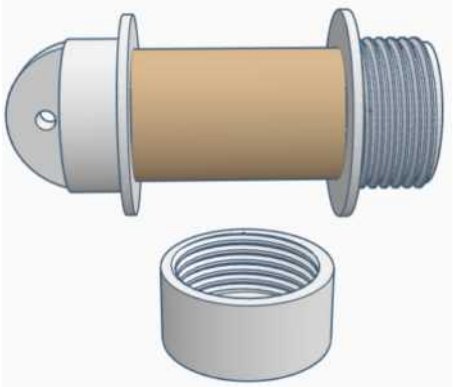
3

Test fit the large motor mount ring and the male side of the motor retainer to the motor tube. Sand as needed then slide the ring onto the tube, then glue the male theads flush to the end of the tube.



4

Slide the larger motor mount ring against the male threaded section of the retainer and glue it into place.



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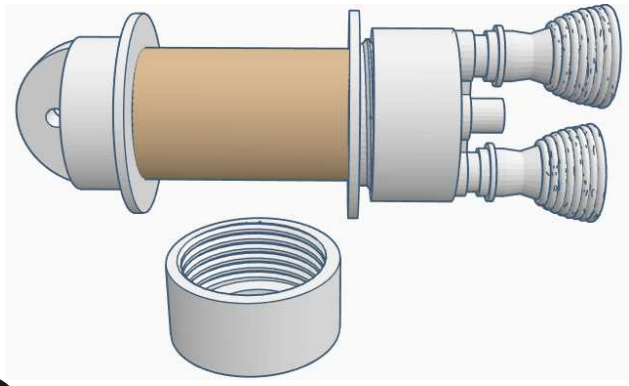
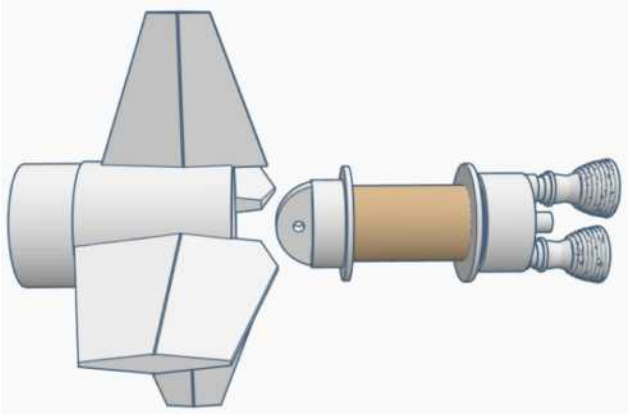
5

When the motor mount assembly is dry, screw on the display motors until they bottom out on the threads. Don't over tighten.



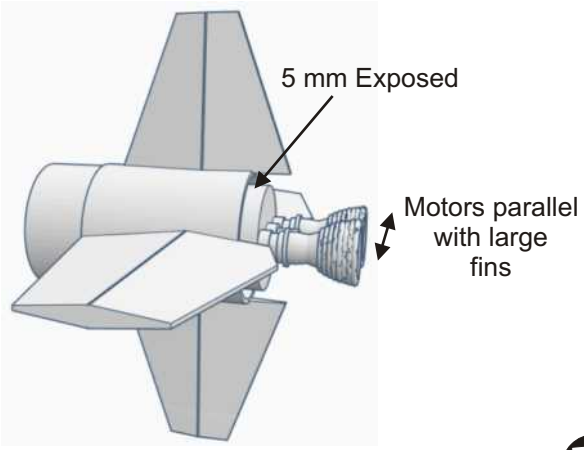
6

Using the display engines as a handle, test fit the assembly into the fin can as shown. Sand the centering rings if needed.



7

Install the motor mount. Make sure to turn the assembly clockwise until the display engines are parallel with the larger fins on the fin can. The motor mount should be installed so that 5mm of the screw on housing extends past the base of the can.

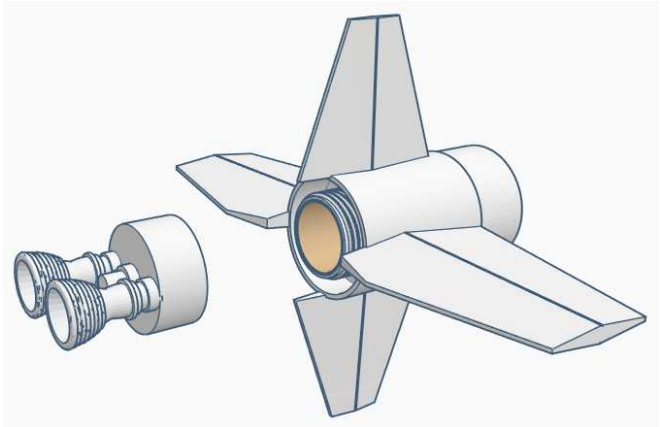


8

When the motor mount is in the correct position and allignment drop super glue into the front of the fin can between the centering rings and the can. Rotate the can to achieve even coverage.

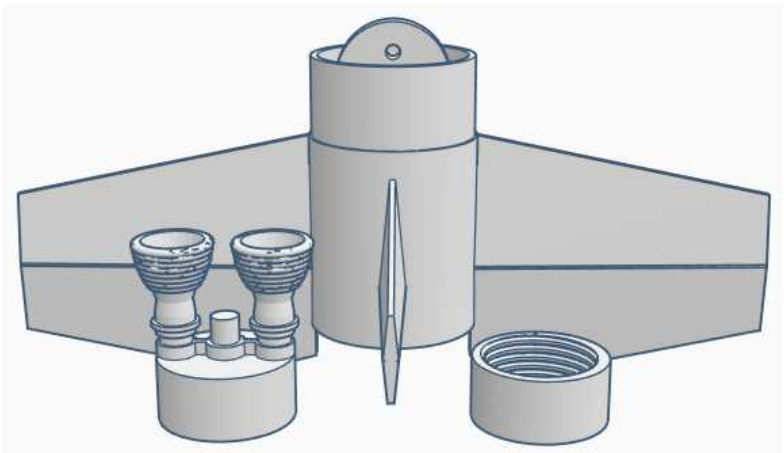
9

When dry, remove the display motors and do the same from the rear of the fin can. Again, drop super glue into the space between the fin can and the motor mount ring. Take care not to get glue on the motor retention threads.



10

Allow the fin can to dry. Sand and paint the fin can and the display motors with aluminum colored paint matching the color of the upper body tube wrap.



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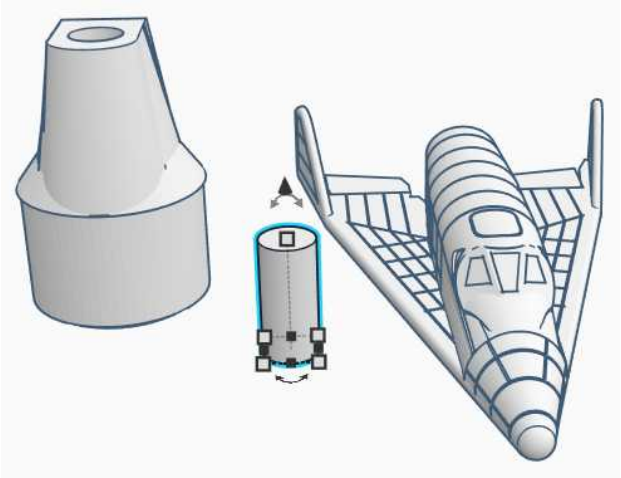
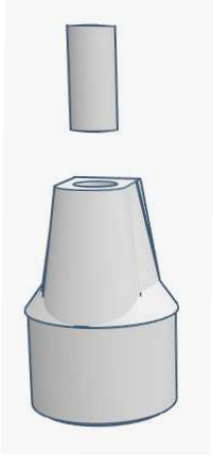
11

Sand the Dyna-Soar space plane and its transition until it is smooth to the touch. Test fit the transition and shoulder into a piece of BT-60 body tube for fit. Sand as needed.



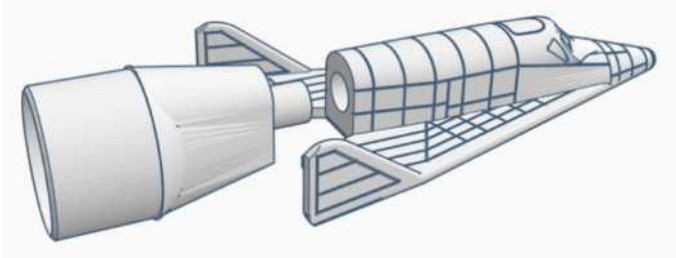
12

Sand the Transition dowel pin until it is a good slide fit into the hole in the transition. Use super glue to glue it in place making sure it is fully seated in the hole.



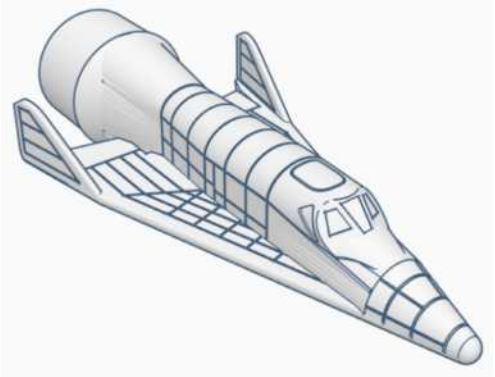
13

When dry test fit the adapter section into the Dyna-Soar. **DO NOT GLUE THE ADAPTER TO THE DYNA-SOAR!** Nose weight will be added to the model at the end of the build and then the parts will be glued together.



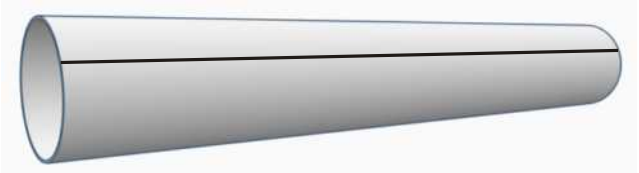
14

Tape off the shoulder of the adapter and spray paint the entire space plane and adapter flat black. Give the parts at least three light coats allowing for drying time between each coat.



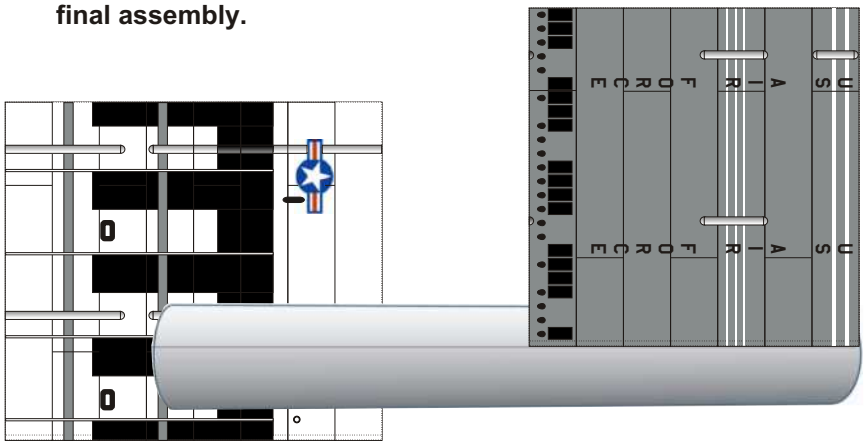
15

Carefully cut a section of BT-60 body tube to a length of 277 mm. Using a metal angle or a door jam draw a pencil line down the center of the tube. Carefully cut out the two sections of body wrap decals using a metal straight edge and a sharp Exacto knife.



16

Peel back about a half inch of the upper body wrap decal and flold it back. Align the decal with the top edge of the tube and the pencil line.When correctly aligned peel off the entire paper backing and carefully smooth the wrap into position around the tube. Do the same with the lower section of body wrap. **NOTE: Water will make the paint on the vinyl body wrap decals run! Make sure to spray the completed body tube with a matte colored clear coat before final assembly.**



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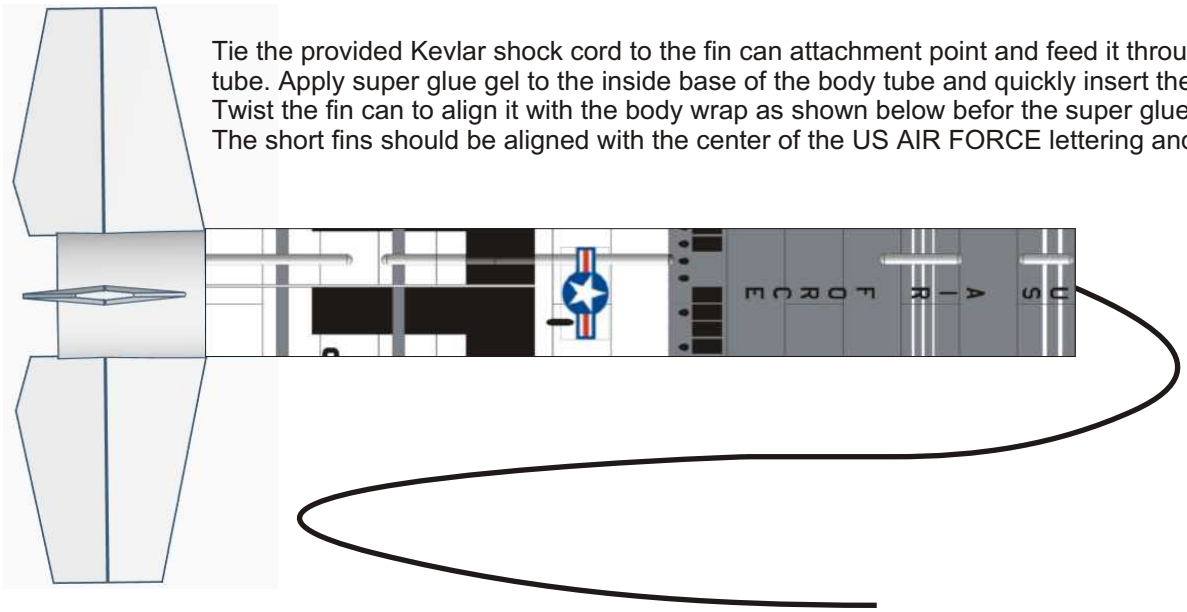
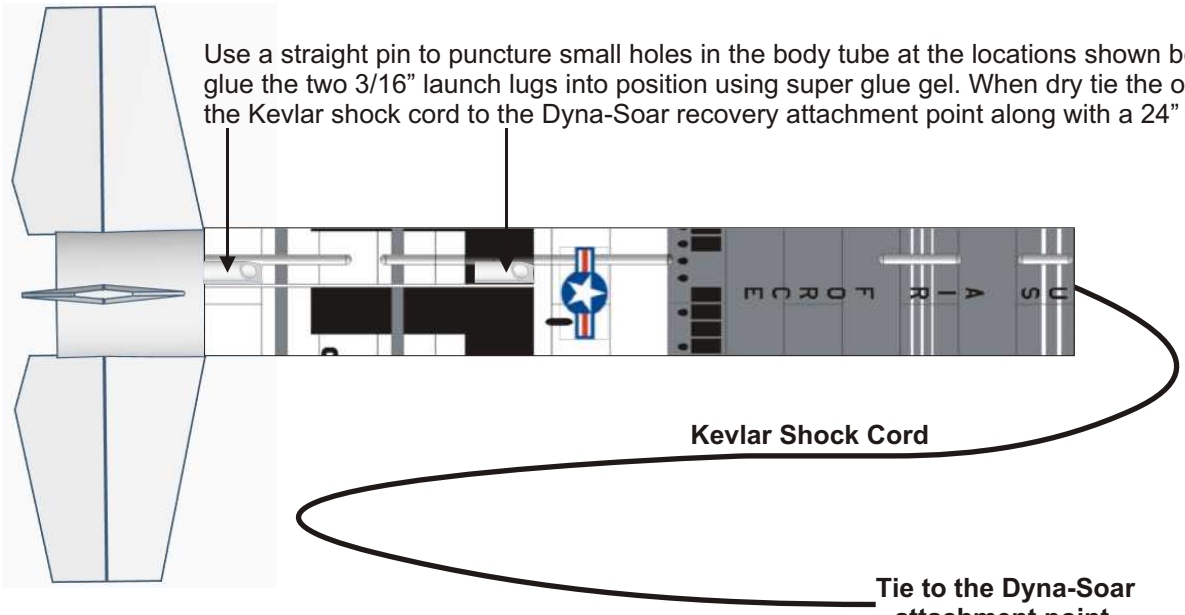
17



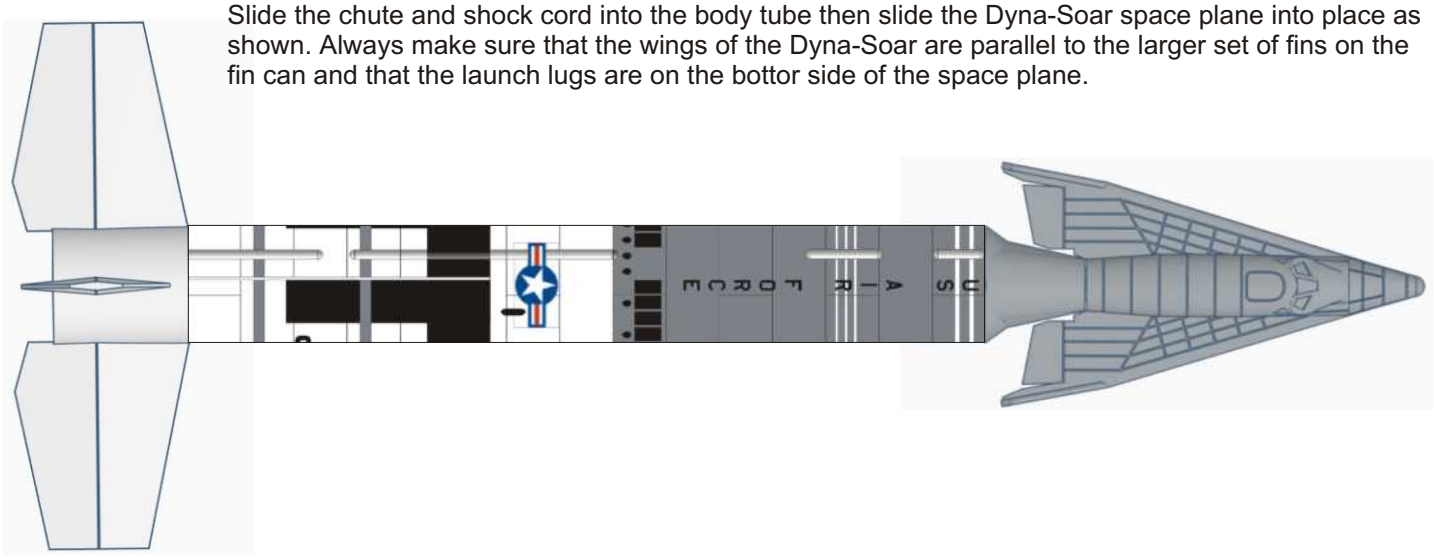
Tie the provided Kevlar shock cord to the fin can attachment point and feed it through the body tube. Apply super glue gel to the inside base of the body tube and quickly insert the fin can. Twist the fin can to align it with the body wrap as shown below befor the super glue gel sets. The short fins should be aligned with the center of the US AIR FORCE lettering and the star.

18



Use a straight pin to puncture small holes in the body tube at the locations shown below then glue the two 3/16” launch lugs into position using super glue gel. When dry tie the open end of the Kevlar shock cord to the Dyna-Soar recovery attachment point along with a 24” chute.

20



Slide the chute and shock cord into the body tube then slide the Dyna-Soar space plane into place as shown. Always make sure that the wings of the Dyna-Soar are parallel to the larger set of fins on the fin can and that the launch lugs are on the bottor side of the space plane.

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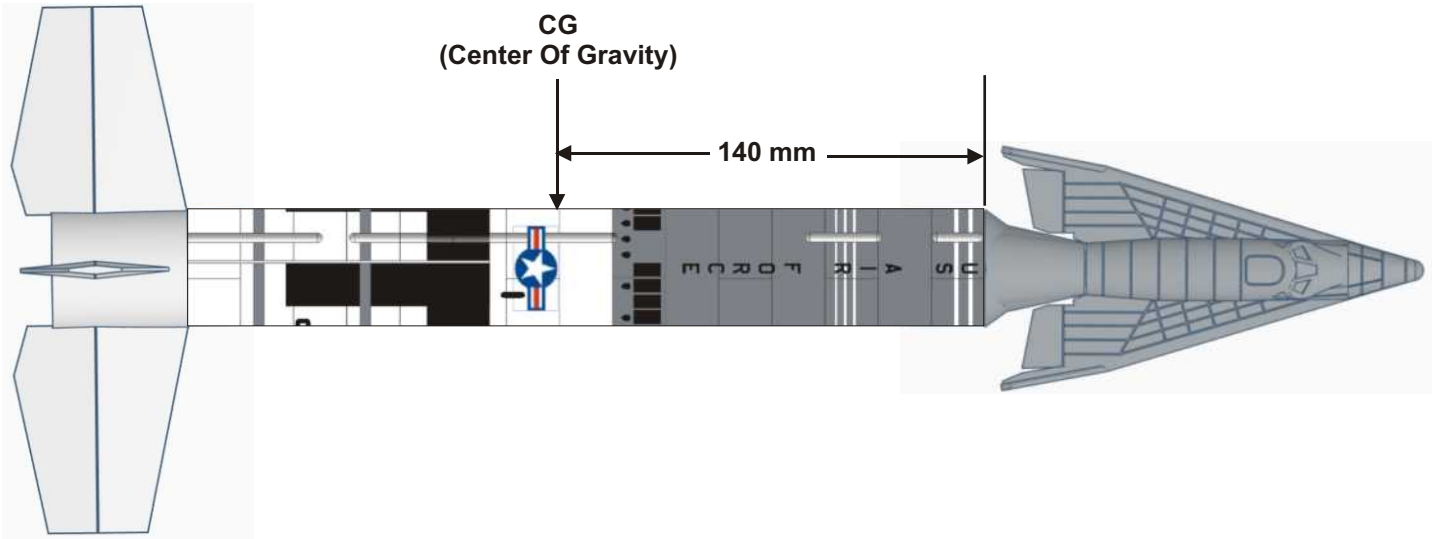
21 IMPORTANT! IMPORTANT! IMPORTANT!

Put a D12-5 rocket motor in the model then add lead fishing weights (small split shot hammered flat) to the inside of the Dyna-Soar 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 or destroy your rocket! Make sure to glue the Dyna-Soar to the Titan transition section after you have finished adding nose weight.



Flight Instructions:

1) Use an Estes D12-5 motor for your first flight. Install the motor and screw on the motor retainer.

2) Put a few sheets of recovery wadding into the model then fold and pack your parachute.

3) Place the Dyna-Soar nose cone on your model. Make sure to align the Dyna-Soar's wings with the larger lower fins.

4) Install your motor ignitor as directed by the manufacturers instructions.

5) Slide your model on the launch pad. Make sure that you are using a 3/16th inch launch rod.

6) Check the range and proceed with your countdown and launch when all is clear.

NOTE: Do not fly this model in winds over 10 MPH!

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!