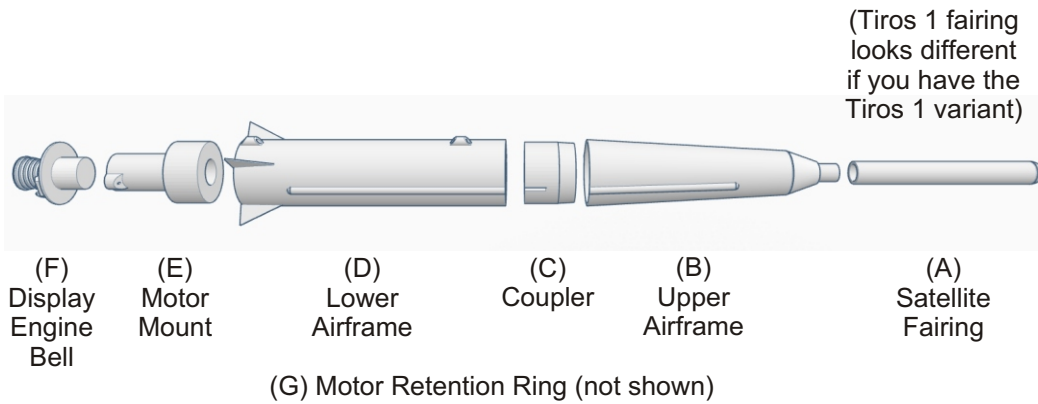


1/48th Scale Thor-Able Flying Model Rocket

Thank you for purchasing a Boyce Aerospace Hobbies Thor-Able 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 Thor-Able kit:

36 inches of thin Kevlar cord
24 inch parachute
A short length of shock cord
Super glue
Clay or lead nose weight
Epoxy
400 grit wet/dry sandpaper
Gray automotive spray primer
White spray paint
Silver spray paint
Painters tape
Decal lettering (Black)

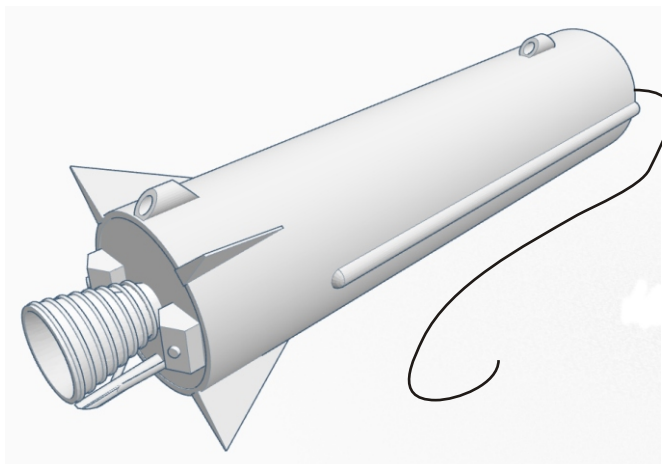
1

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) Satellite fairing to upper airframe.
- 2) Coupler to upper airframe
- 3) Coupler to lower airframe
- 4) Motor mount to lower airframe
- 5) D motor to inside of motor mount
- 6) Display engine bell to motor mount

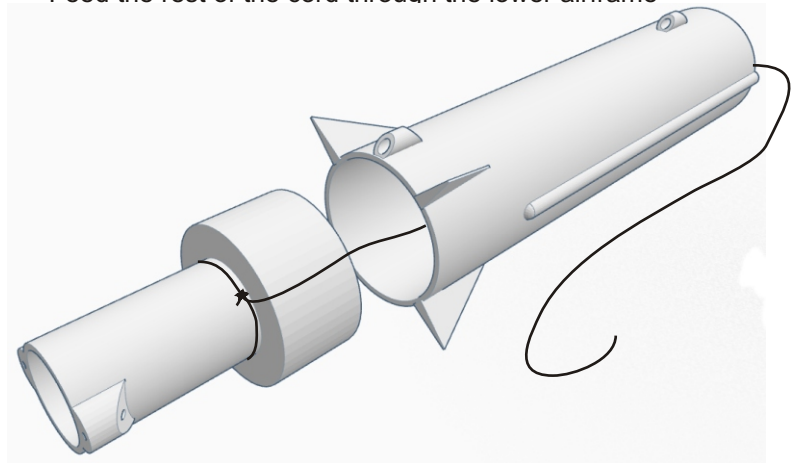
3

Apply super glue to the knot then slide the motor mount into the lower airframe while keeping pressure on the Kevlar in order to take up the slack. Rotate the motor mount as shown below (motor mount tabs 90 degrees to the launch lugs) and recess the end of the mount 2 mm into the end of the lower airframe. Test fit the display engine bell in the mount. The bulkhead on the display engine bell should be just inside the lower airframe and flush with the tail end of the rocket.



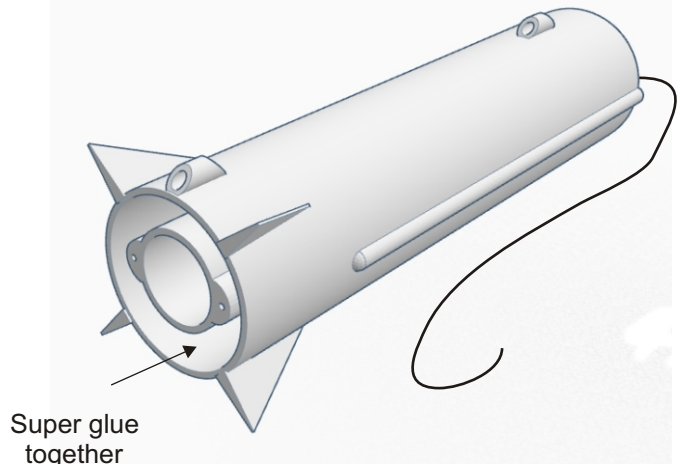
2

Tie a length of Kevlar cord around the base of the motor mount. Feed the rest of the cord through the lower airframe



4

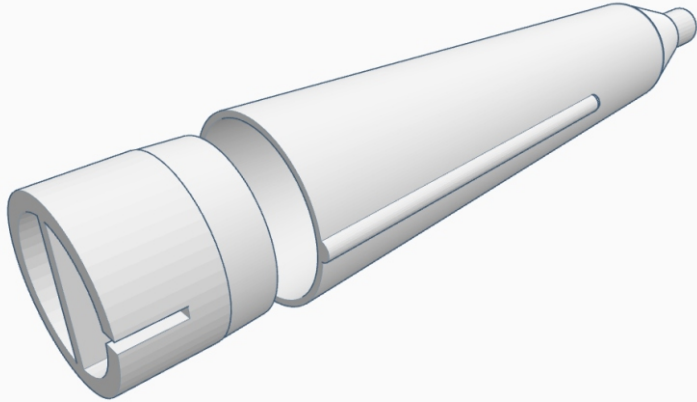
After adjusting the motor mount remove the display engine bell and apply super glue to the joint between the mount and the lower airframe. Use gravity and slowly rotate the airframe to assist the glue to wick into the joint.



1/48th Scale Thor-Able Flying Model Rocket

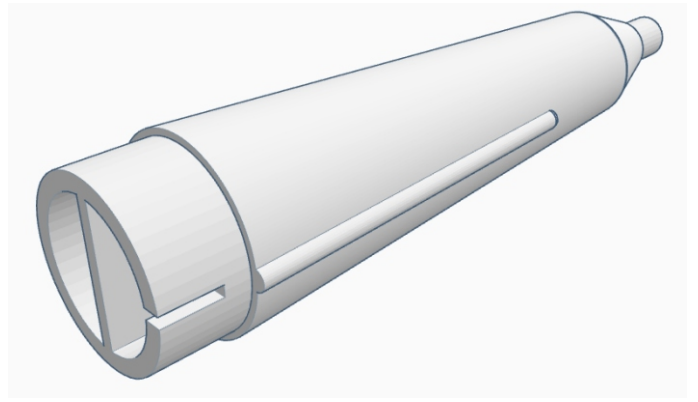
5

Test fit the coupler with the upper airframe as shown below. Make sure to align the slot in the coupler with one of the outside conduits on the upper airframe. Test fit the coupler/upper airframe assembly into the lower airframe. Adjust the couplers position in the upper airframe by twisting it until the conduits on the upper and lower airframes line up with each other.



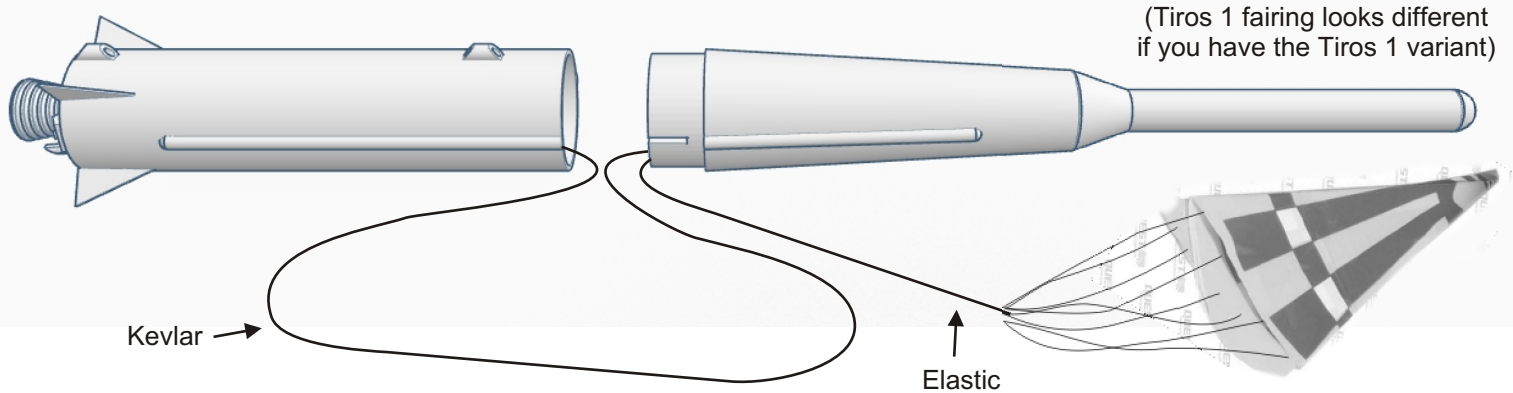
6

Remove the coupler/upper airframe assembly from the lower airframe then mark the position of the coupler to the upper airframe with a pencil as shown. Remove the coupler, apply super glue, then quickly insert the coupler into the upper airframe making sure it is seated completely and lined up with your pencil marks. Allow to dry.



6

Slide the satellite fairing into place (**DO NOT GLUE**). Slide the display engine bell on (**NEVER GLUE**). Attach the recovery system as shown. We recommend a 24 inch parachute.



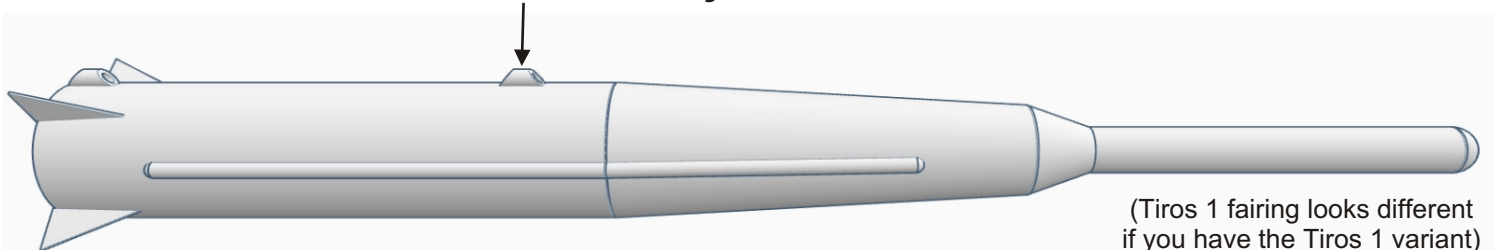
IMPORTANT!

IMPORTANT!

IMPORTANT!

Put a D rocket motor in the model then add approximately ½ ounce of clay to the inside of the satellite fairing 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 damage the rocket! To secure the clay mix a small amount of epoxy and pour it over the clay to seal it in the nose. After the epoxy has dried super glue the satellite fairing to the upper airframe.

CG-Center Of Gravity



1/48th Scale Thor-Able Flying Model Rocket

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 and you should have a nice finished surface for painting.

PAINT AND DETAIL THE MODEL AS SHOWN BELOW:

There are many painting and modeling references on the internet for the Thor-Able. The main vehicle is painted white with the first conical section below the satellite shroud painted silver. The engine bell and exhaust turbine tube are silver. All lettering and markings are in black. Please enjoy your model and send us some images of you completed rocket for our web gallery (when we get it set up!). Thanks again for your purchase....Alex and Sheree Boyce boyceaerospacehobbies@gmail.com



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1/48th Scale Thor-Able Flying Model Rocket

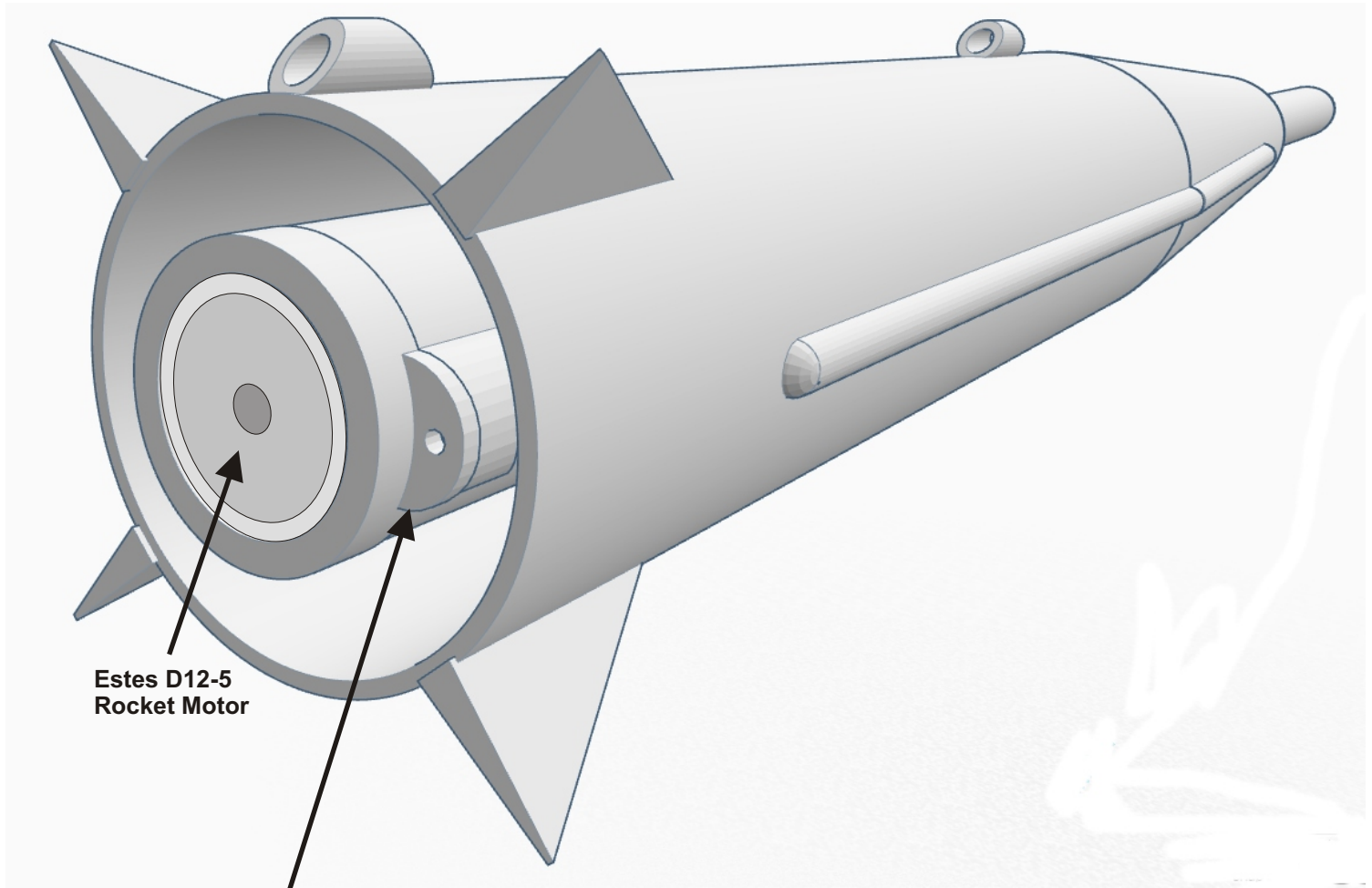
Flight Prep:

Use recovery wadding and carefully pack your parachute.

Use an Estes D12-5 motor for your first flight. Use two small screws 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 rocket's 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!

(Tiros 1 fairing looks different if you have the Tiros 1 variant)



Estes D12-5
Rocket Motor

Use Small Wood Screws