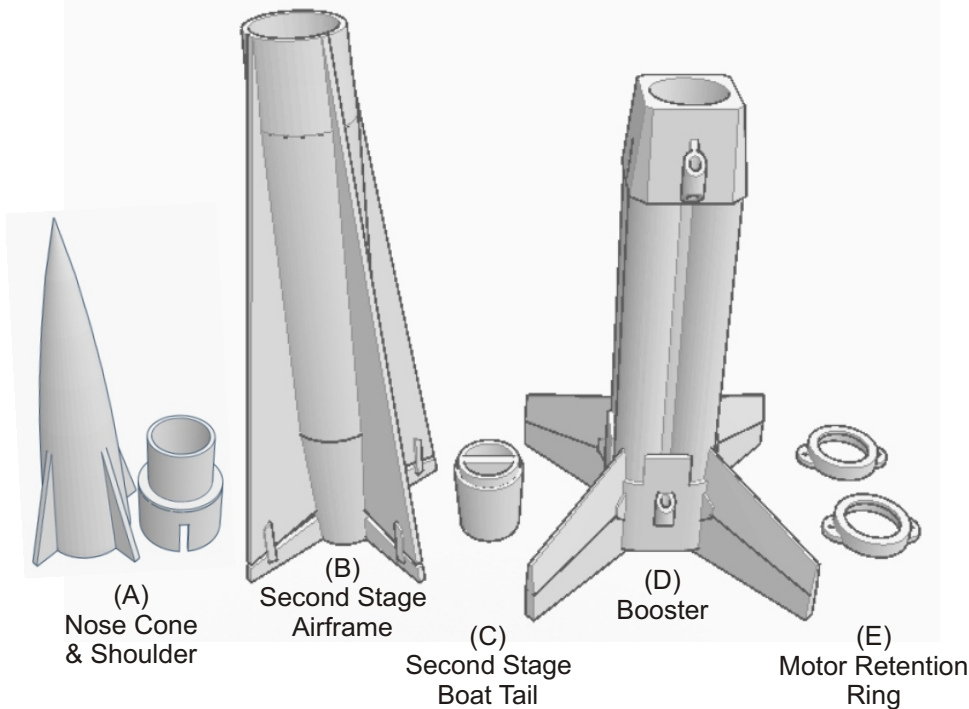# 1/24th Scale Nike Hercules Flying Model Rocket

Thank you for purchasing a Boyce Aerospace Hobbies Nike Hercules 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 Nike Hercules kit:

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

(A)
Nose Cone
& Shoulder

(B)
Second Stage
Airframe

(C)
Second Stage
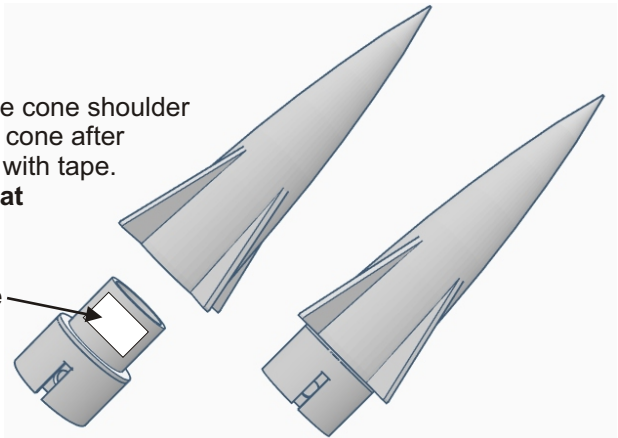Boat Tail

(D)
Booster

(E)
Motor Retention
Ring

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) Nose cone to second stage airframe.
2) Second stage airframe to second stage boat tail.
3) Second stage boat tail to booster.
4) Inside of motor mount to an Estes D motor.

2

Slide the nose cone shoulder into the nose cone after friction fitting with tape. **Do not glue at this time!**

Tape

3

Tie your length of Kevlar cord to the second stage boat tail cross member. Feed the rest of the cord through the second stage airframe and tie it to the cross member under the nose cone.

Apply super glue to both knots then super glue the second stage boat tail to the second stage airframe. Attach your shock cord and parachute to the nose cone.
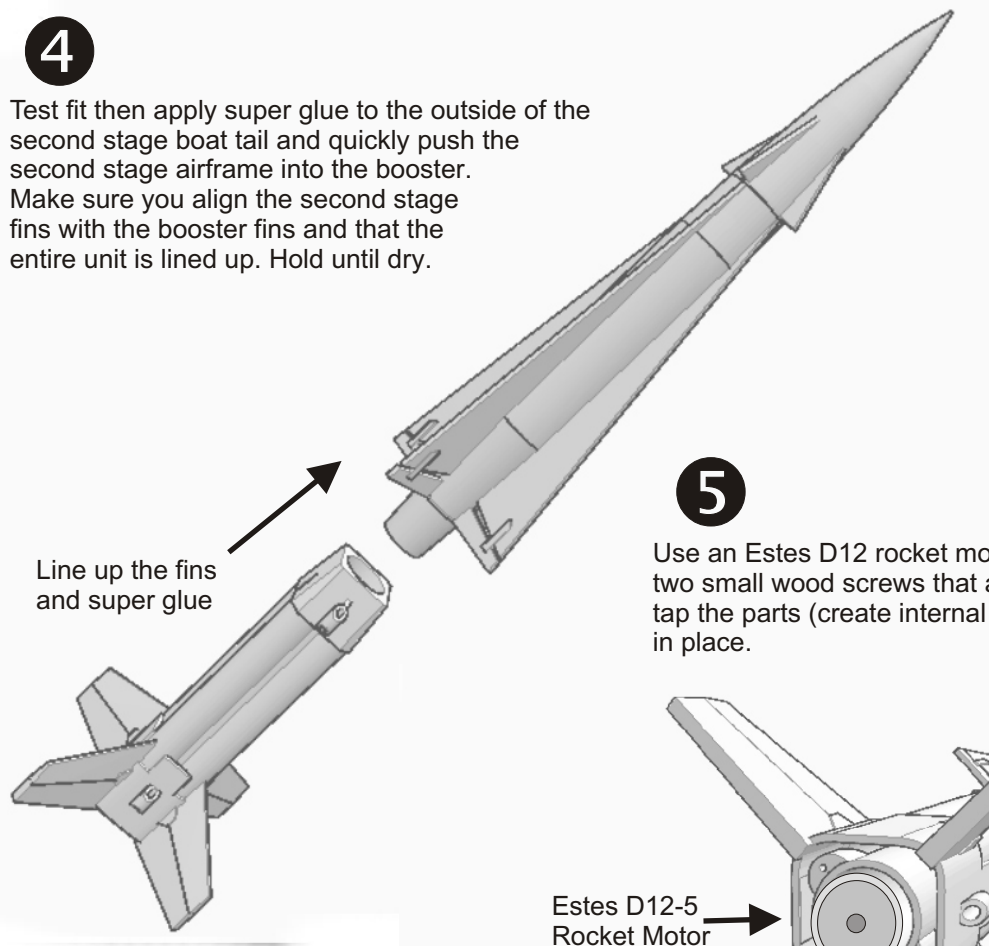
Super glue together

Tie to parachute
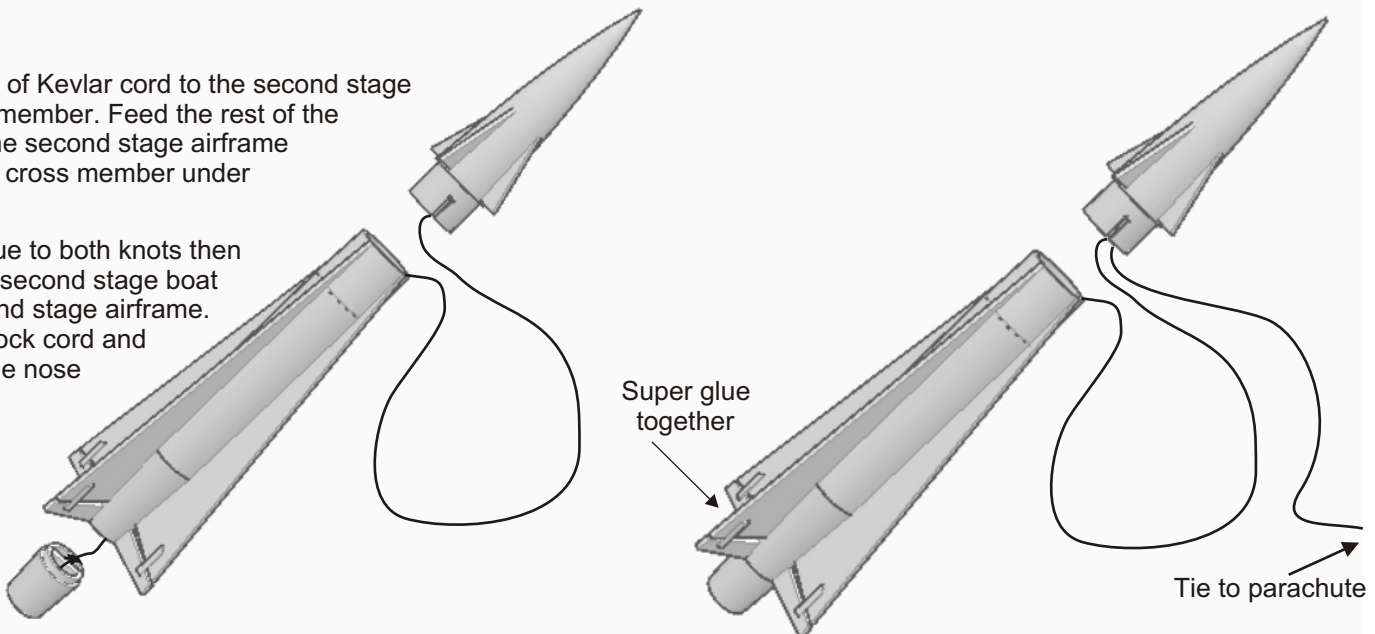
# 1/24th Scale Nike Hercules Flying Model Rocket

④

Test fit then apply super glue to the outside of the second stage boat tail and quickly push the second stage airframe into the booster. Make sure you align the second stage fins with the booster fins and that the entire unit is lined up. Hold until dry.

Line up the fins and super glue

❺

Use an Estes D12 rocket motor to test fit the motor retention system. Use two small wood screws that are just a tiny bit larger than the part holes to tap the parts (create internal threads) and hold the retention ring and motor in place.
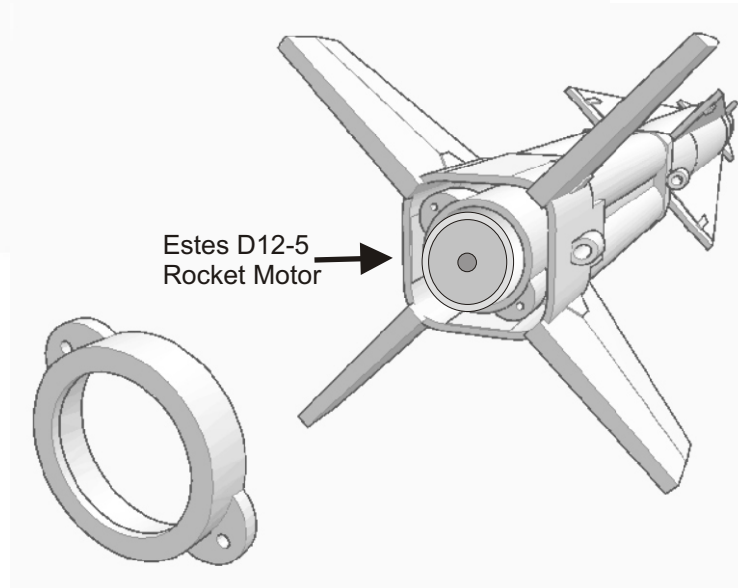
Estes D12-5 Rocket Motor

❻

Sand 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 second coat of gray primer. Follow this up with wet sanding only and a final coat of primer and you should have a nice finished surface ready for painting.

Note: Any areas that need filling can be filled with regular hobby wood filler or automotive spot putty then sanded as described above.
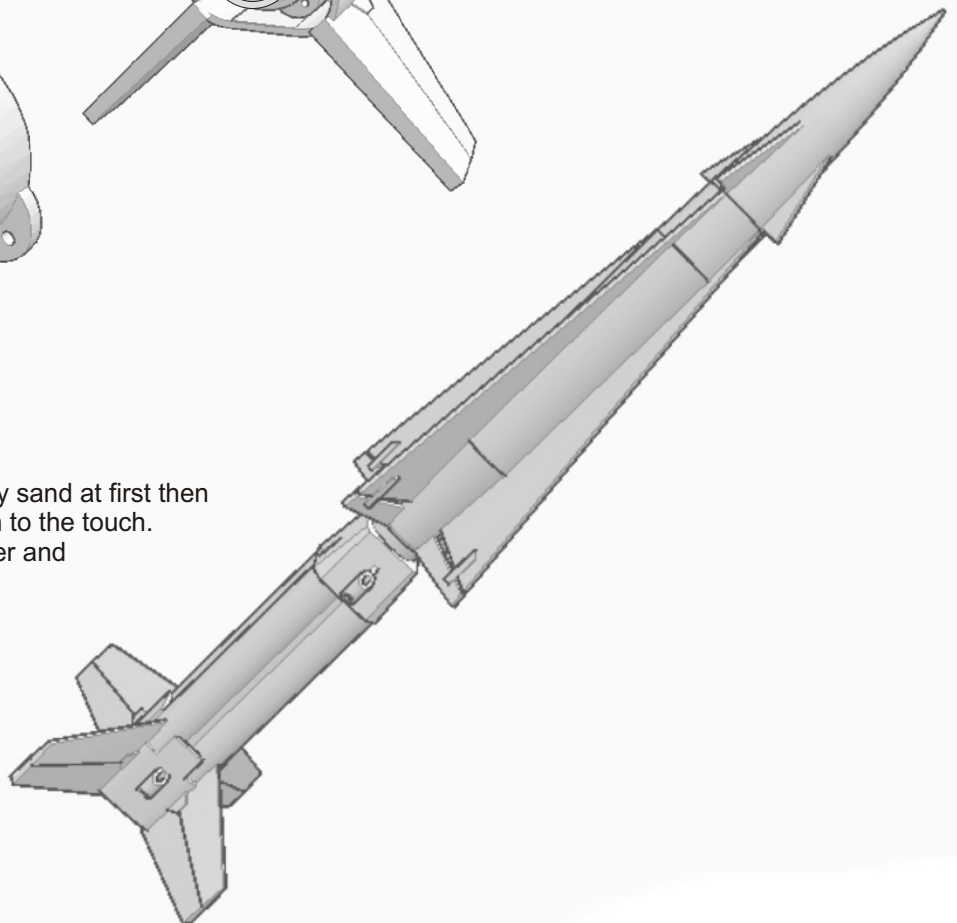
1/24th Scale Nike Hercules Flying Model Rocket

IMPORTANT!   IMPORTANT!   IMPORTANT!

Put a rocket motor in the model then add clay or pennies to the cup inside the nose cone shoulder 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!** Once enough nose weight has been added epoxy the clay or pennies in place then glue the shoulder to the nose cone making sure to align the nose cone's fins with the fins on the main body (as the shoulder is in place and in its alignment slot on the airframe).

CG-Center Of Gravity
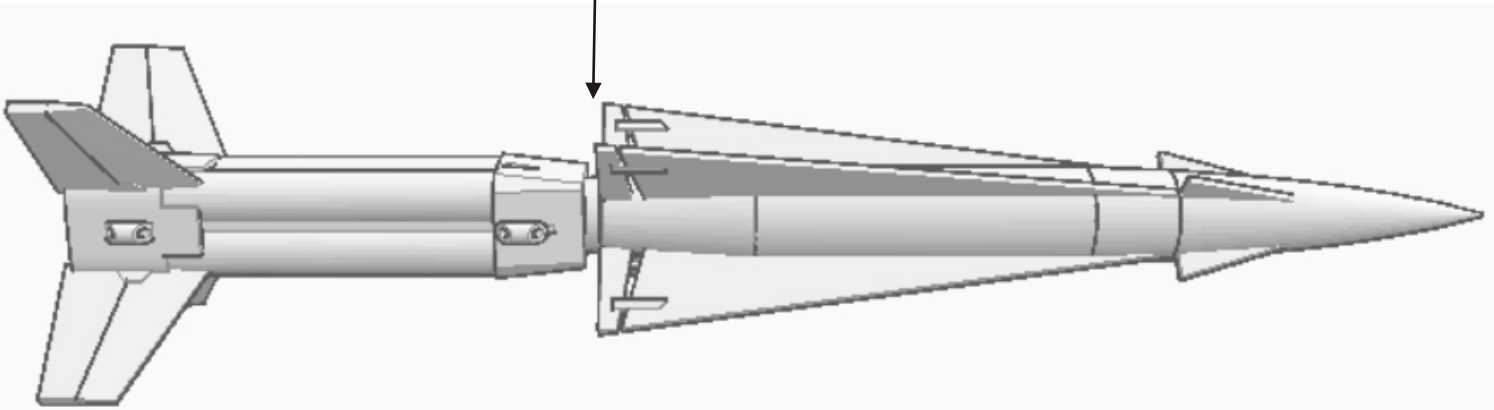
Flight Prep:
Use recovery wadding and carefully pack your parachute.

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 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!

PAINT AND DETAIL THE MODEL AS SHOWN BELOW:

There are a ton of painting references on the web for the Nike Hercules. I printed just one photo to give you some motivation. Booster is painted military green just on the motor casings. The rest of the missile is white. The U.S. ARMY text is black and appears to be Arial Bold. 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