**Step 01**
A. Place the pre-slit Yellow Motor Mount Tube up against the ruler provided below. Make a pencil mark on the Tube 1/2 inch from the both ends.

**Step 02**
A. Insert the Motor Clip into the slit in the Yellow Motor Mount Tube.
B. Wrap a piece of tape all the way around the Yellow Motor Mount Tube to hold the Motor Clip in place.

**Step 03**
A. Apply a bead of wood glue around inside edge of Yellow Motor Mount Tube as shown.
B. Insert the Blue Thrust Ring into the Yellow Motor Mount Tube so it is even with the end of the Yellow Motor Mount Tube.

**Step 04**
A. Hold the Yellow Kevlar Cord and the White Shock Cord side by side. Pull one end of each cord so that they are even with each other. While holding the two cords together, tie a single parallel overhand knot approximately one inch from the ends as shown.
B. Gently pull on both cords to set the knot and prevent it from slipping.
C. Apply a small amount of Wood Glue on the ends of both cords to prevent them from fraying.

**Step 05**
A. Use two overhand knots to tie the Yellow Kevlar Cord around the Yellow Motor Mount Tube as shown.

**Step 06**
A. Apply a bead of Glue along one pencil mark on the Yellow Motor Mount Tube. Thread the Shock Cord through one of the Centering Rings.
B. Slip the Centering Ring over the Yellow Motor Mount Tube so that it is aligned with Glue Bead on the pencil mark. Repeat for other Centering Ring.

**Step 07**
A. Cut out the Tube Marking Guide found on Page 02. Wrap the Tube Marking Guide over the White Body Tube and make a mark at each of the arrows with a pencil.
B. Use a door frame as a guide and extend each of the fin and launch lug pencil marks to about 3 inches from the end of the Body Tube. Draw a solid line for the fins, a dotted line for the Launch Lug.

**Step 08**
A. Apply a thick bead of Glue inside the Body Tube 1/2 inch from the end of the Body Tube. Thread the Shock Cord through the Body Tube, then using a twisting motion, slide the completed Motor Mount Assembly into the Body Tube so that the Motor Mount Tube is flush with the Body Tube.
B. Add another bead of Glue to both sides of a fin-body joint.

**Step 09**
A. Carefully remove each of the Laser Cut Balsa Fins from the sheet with a sharp hobby knife.
B. Stack like fins together and sand all edges smooth.

**Step 10**
A. Apply Wood Glue to the root edge of one Fin.
B. Glue the Fin to the Body Tube along the Fin Line so it’s trailing edge is even with the end of the Body Tube.
C. Check Alignment with drawing.
D. Allow to dry.
E. Repeat this step for the remaining Fins.

**Step 11**
A. Apply Wood Glue to one side of the Launch Lug.
B. Glue the Launch Lug the Body Tube along the Launch Lug Line.
C. Check that so it’s trailing edge is 1 inch from the end of the Body Tube.
D. Allow to dry.

**Technique Tip**

**How to make a “Fin Fillet” for extra fin strength**
A. After the Fin glue joints have completely dried, apply a thin bead of Wood Glue to both sides of a fin-body joint.
B. Smooth out the glue with your finger. Wipe excess glue off your finger onto a tissue or paper towel.

**How to make a “Double Glue Joint” for extra fin strength**
A. Apply a small line of glue to the root edge of the fin.
B. Attach it to the body tube in correct position.
C. Remove the fin and wipe away any excess glue on the fin and the body tube so there is only a very thin layer of glue left.
D. Wait until the glue is dry, then re-apply a new line of glue to the root edge of the fin and re-attach the fin.

Visit our website
www.questaerospace.com
**Step 12**

A. Peel the backing off the Gripper Tab and attach it to one end of the plastic Streamer.

B. Feed the loose end of the Shock Cord through the hole in the Gripper Tab.

C. Use two overhand knots to tie the loose end of the Shock Cord to the Nose Cone.

**Step 13**

A. Place a rolled up newspaper in the Motor Mount to act as a handle to hold while painting the rocket. Paint the entire rocket with White Enamel Spray Paint.

**Step 14**

A. After the White Paint has thoroughly dried, use Masking Tape to mask off the White Fins. Place a strip on each White Fin, right up against the root edge. Then use newspaper to cover the rest of each White Fin.

B. Place a rolled up newspaper in the Motor Mount to act as a handle to hold while painting the rocket. Cover the entire rocket with Blue Enamel Spray Paint.

When paint is dry, carefully remove Masking Tape.

**Step 15**

The Decals in this kit are peel and stick, no wetting with water is required.

To allow more versatility in the placement of the Decals, cut them apart, peel off backing, then dip them in a shallow bowl of water with a drop of dish soap. The Decals can then be repositioned for a short time, then burnished down.

Place the decals in the appropriate positions shown.

**Before starting assembly read through these instructions. It is best to test fit all parts before applying any glue. Read and follow the NAR Model Rocket Safety Code.**

**Parts for the COBALT**

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>11520 40mm Tube 4” long, White</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>20806 Blowmold Nose Cone - White</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>33028 Laser-cut Balsa Fin Sheet</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>10303S Yellow Motor Mount Tube w/slit</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>49000C Motor Mount Clip</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>14000 Blue Thrust Ring</td>
<td>1</td>
</tr>
<tr>
<td>G</td>
<td>10001 2” Launch Lug</td>
<td>1</td>
</tr>
<tr>
<td>H</td>
<td>16007 Die-cut Centering Ring</td>
<td>2</td>
</tr>
<tr>
<td>I</td>
<td>28004 Single Hang Tab</td>
<td>1</td>
</tr>
<tr>
<td>J</td>
<td>28150 24” Streamer</td>
<td>1</td>
</tr>
<tr>
<td>K</td>
<td>50051 18” Kevlar Cord</td>
<td>1</td>
</tr>
<tr>
<td>L</td>
<td>50011 18” White Elastic Cord</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>1021-1030 Decal Sheet</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>1021-1010A Instruction Sheet</td>
<td>1</td>
</tr>
<tr>
<td>P</td>
<td>1021-1010B Instruction Sheet</td>
<td>1</td>
</tr>
</tbody>
</table>

**Things you’ll need to assemble this kit**

- **Hobby Knife**
- **Clear Tape** Scotch, 3M or similar
- **Masking Tape**
- **Spray Paint** Gloss White and Royal Blue
- **Wood Glue** Aliphatic Resin glues work best such as TITEBOND or ELMER’S CARPENTER’S WOOD GLUE

**Prod No. 1021**
**Step 01**

Pull the Shock Cord all the way out of the Body Tube. Take three sheets of Recovery Wadding and fold each into a 2"x2" square. Insert one by one into the body tube making sure that the Knot between the Kevlar and the White Elastic Shock Cord is on the Nose Cone side of the Wadding. The Wadding should fit in the tube with corners bent up against the wall of the tube.

![Body Tube shown transparent for Wadding placement.](Image)

---

**Step 02**

A. Grab the plastic Streamer at it's center and fold it in half. Continue folding the Streamer in half until small enough to roll tightly.

**Step 03**

A. Pack the Streamer into the Body Tube. THE STREAMER MUST SLIDE EASILY INTO THE TUBE. If it is a tight fit, remove and refold the Streamer.

B. Push the shock cord into the Body Tube and refit the Nose Cone onto the Rocket. BE CAREFUL NOT TO CATCH ANY OF THE SHOCK CORD BETWEEN THE SHOULDER OF THE NOSE CONE AND THE BODY TUBE.

**Flying the Cobalt Rocket**

**WHAT ELSE YOU WILL NEED**

To successfully fly your Cobalt Rocket, you will need the following items:

- QUEST Launch Pad (No. 7610)
- QUEST launch Controller (No. 7510)
- QUEST Parachute Recovery Wadding (No. 7021)
- QUEST Rocket Motors, Type A6-4 Only.

---

**Estimated Altitudes**

The following is a guide to assist you in determining which Motor to use based on the local wind conditions and the size of your flying field.

<table>
<thead>
<tr>
<th>MOTOR</th>
<th>ESTIMATED ALTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6-4 Only</td>
<td>300 FEET</td>
</tr>
</tbody>
</table>

---

Find more model rockets, information and model rocket history at our website www.questaerospace.com

Quest is very proud of its heritage. Quest’s President Bill Stine is the son of G. Harry Stine who founded the hobby of model rocketry in 1957.

---

Download a free altitude tracker from Quest!
http://www.questaerospace.com/q_diy.asp

---

Quest’s DIY Inclinometer: the SKYSCOPE
PDF format

The technical term for the Quest Skyscope is "inclinometer" - we call sometimes just call it an "altitude measurer". Either way, it's an awesome tool for estimating the altitude of static and flying objects. With the Skyscope Inclinometer you don't need to use a plastic protractor and string - everything is built in! This project will enable you to be able to estimate the height of static (buildings) or flying objects by simple "direct read" or by using "tangent calculation". Simple to build, easy to use and *ehem*... FREE!