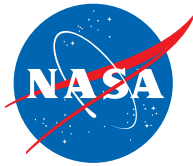


New Horizons Spacecraft Paper Model



NASA's New Horizons spacecraft reached Pluto and its moons in July 2015, revolutionizing our understanding of these mysterious worlds on the outer edge of our solar system. On New Year's Day 2019, a billion miles beyond Pluto, New Horizons will fly past a small, frozen Kuiper Belt object nicknamed Ultima Thule (officially 2014 MU69) — the most distant object ever explored by a spacecraft. pluto.jhuapl.edu

INSTRUCTIONS

This New Horizons to-scale paper model is designed for anyone interested, although it may be too difficult for children younger than 10 years of age. Children should be supervised by an adult when assembling this model.

Read all the instructions first before starting.

SUPPLIES

You will need sharp scissors, a pencil, an art knife (such as an X-Acto knife), tape (best if it is translucent, or use double-sided [double-stick] tape), glue or a glue stick, a cutting surface, and a straight edge (ruler for example).
Cut out all parts along the black lines. Score all red dashed lines lightly (these are the fold lines) with an X-Acto knife for easy and precise folding.

A Communications (Comms.) Dish

Top: Bring A-1 and A-2 together, tucking the flap under A-1, then tape or glue the flap to the underside of A-1, making sure the art is concave (meaning curved inward, like the inside of a bowl). **Bottom:** Bring A-3 and A-4 together, tucking the flap under A-3, then tape or glue the flap to the underside of A-3, making sure the art is convex (meaning curved outward, like the exterior of a sphere). Glue the Top and the Bottom together, matching the sides so it is one piece.

B Ring to Hold Dish

With the art on the outside, bring B-1 together with B-2, matching the end of the gold color to the edge of the white flap. Glue or tape the flap under B-2. The white flap should not be showing once it is taped together. Add the **Comms. Dish** to the **Ring** by taping the four pointed gold flaps on the ring to the outside of the **Comms. Dish**, centering the **Comms. Dish** on the middle of the ring.

C RTG Body

Take the **RTG Body** and roll it lengthwise around the pencil, bringing C-1 and C-2 together and taping (on the outside) C-1 under C-2 to form a tube. This will go into a cut-out circle made in the **RTG Thermal Shield**.

D RTG Thermal Shield

On the top of the **RTG Thermal Shield** you will see a white circle. Cut this out with an X-Acto knife. Take the **RTG Body** tube and put it through the circle, flaps first. Tape the flaps down to the underside of the **Thermal Shield** top. Fold the **RTG Thermal Shield** in half at the red dashed line and glue together.

E Main Body

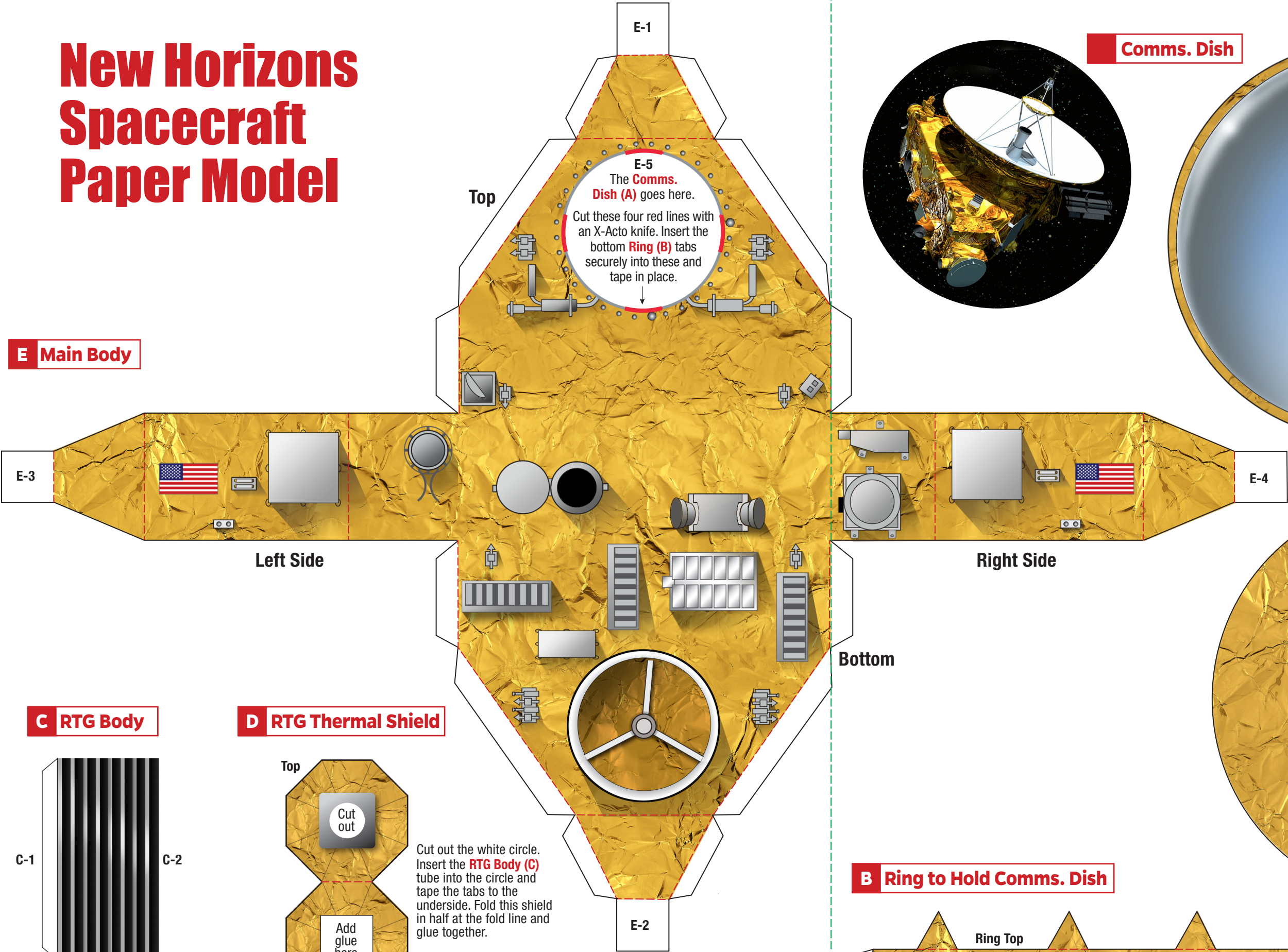
To attach the **Ring** and **Comms. Dish**, insert the four pointed white tabs on the **Ring to Hold Dish** into the solid red lines on the top of the **Main Body** and tape.

Assemble the **Main Body** by bringing tabs E-1 and E-2 together, making sure all red dashed lines are folded. Place E-2 on top of E-1 and glue, making sure they are lined up on all sides. Take E-3 and place it on top of E-2 and glue. Take E-4 and place it on top of E-3 and glue. This is the foundation for the **RTG Thermal Shield**. Place the **RTG Thermal Shield/RTG Body** on top of the four glued tabs and glue this onto the **Main Body**, centering it on the tabs.

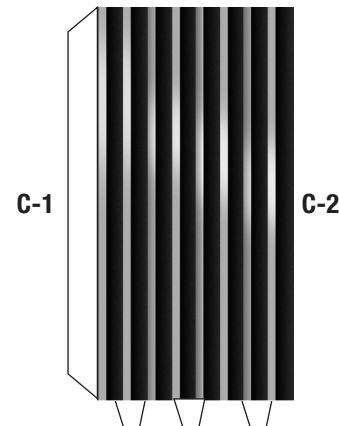
Congratulations! You now have a to-scale New Horizons Spacecraft paper model!

New Horizons Spacecraft Paper Model

E Main Body

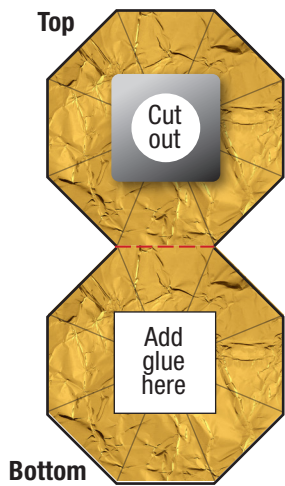


C RTG Body



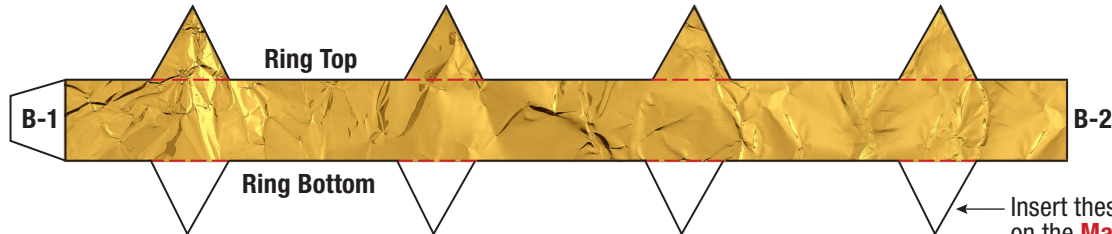
This will become a tube. Roll this around a pencil lengthwise. On the outside tape the C-1 flap under C-2, making sure it fits into the **RTG Thermal Shield (D)** cut-out circle.

D RTG Thermal Shield



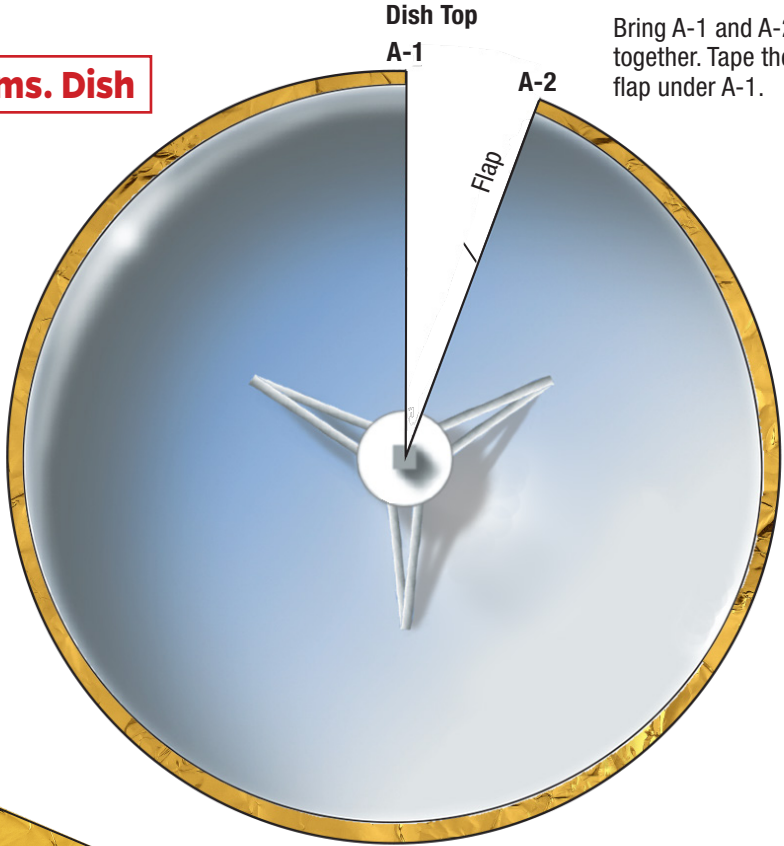
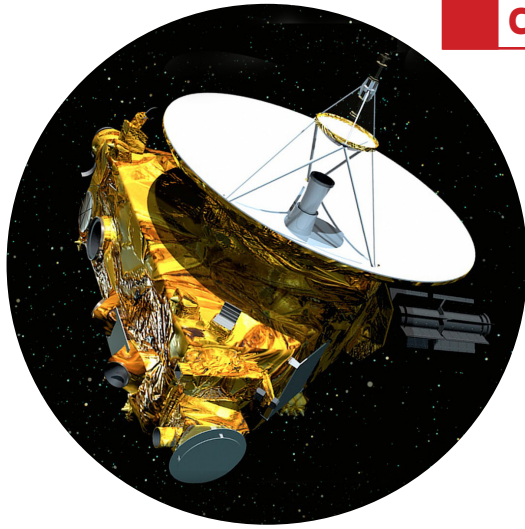
Cut out the white circle. Insert the **RTG Body (C)** tube into the circle and tape the tabs to the underside. Fold this shield in half at the fold line and glue together.

B Ring to Hold Comms. Dish



Insert these four tabs into the four solid red lines on the **Main Body (E)** marked **E-5** and tape securely.

Comms. Dish



Bring A-1 and A-2 together. Tape the flap under A-1.

Bring A-3 and A-4 together. Tape the flap under A-3.