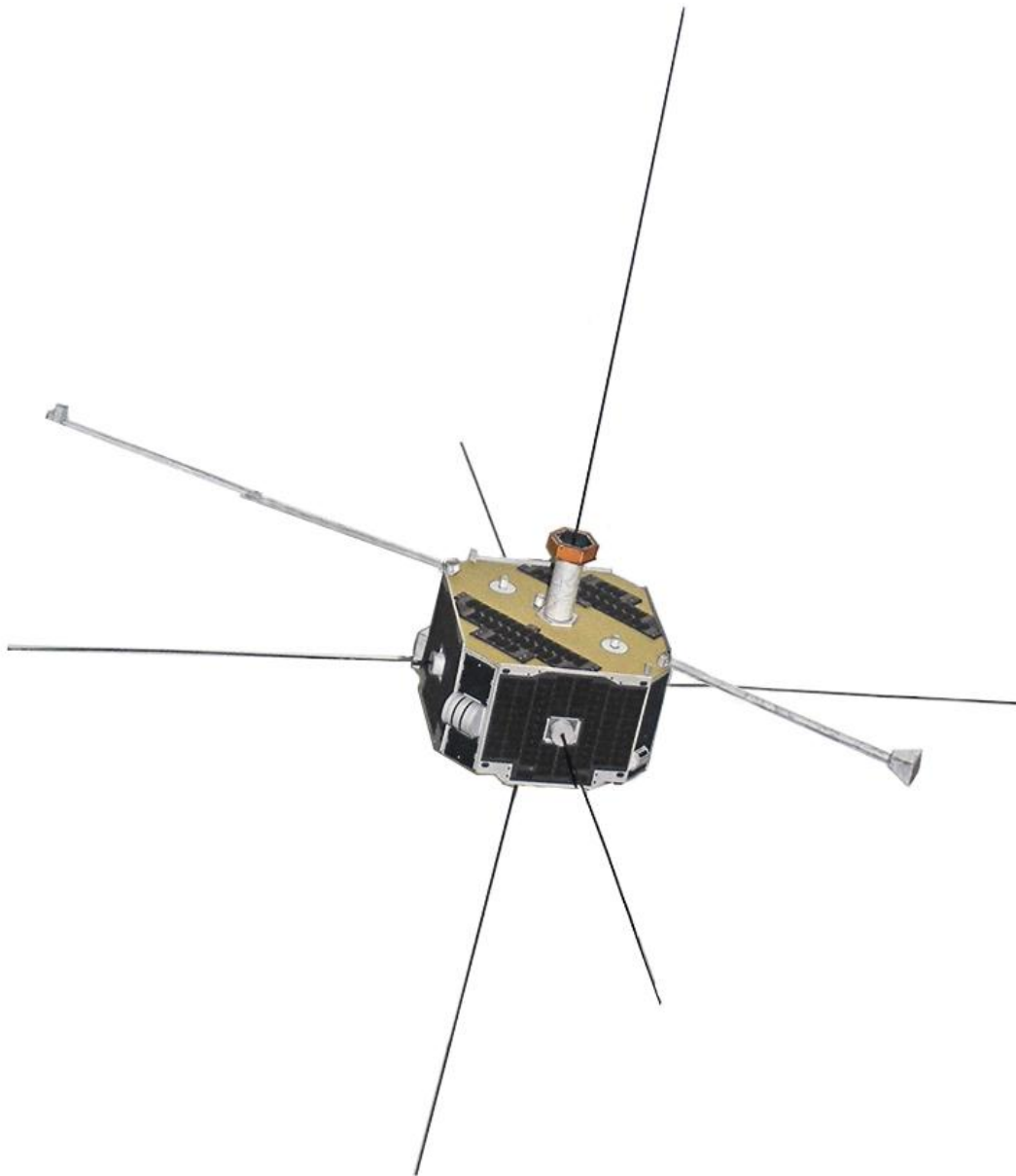
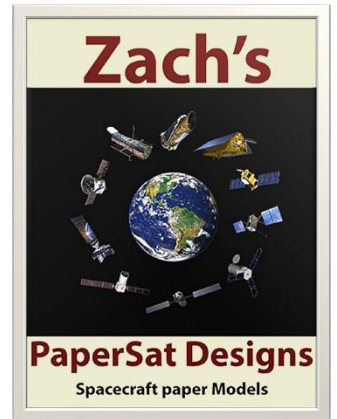
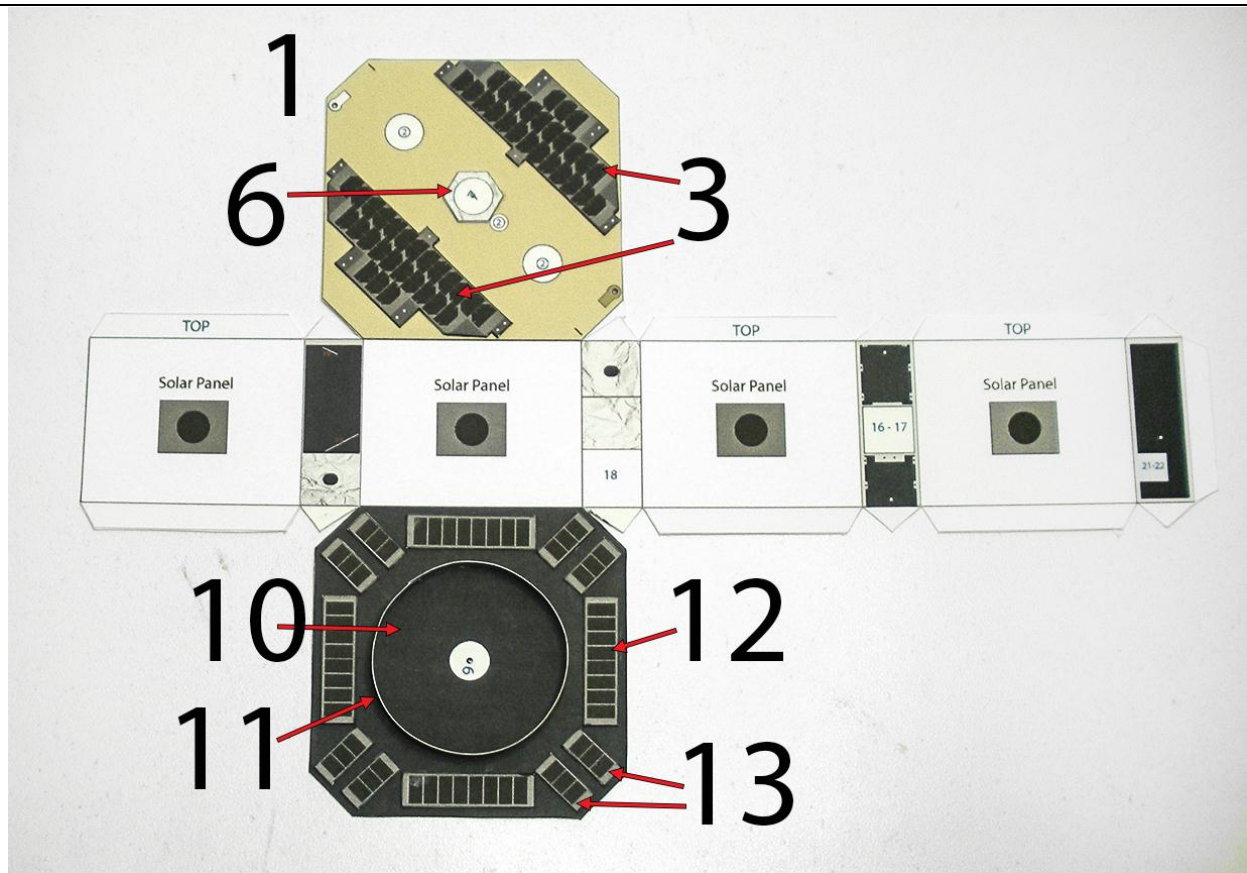


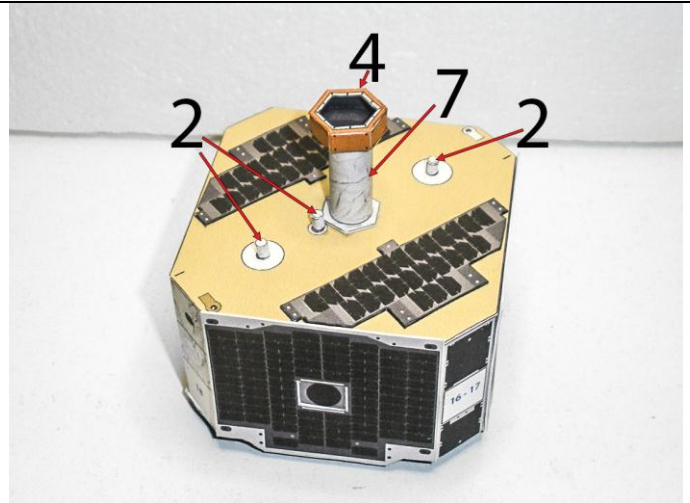
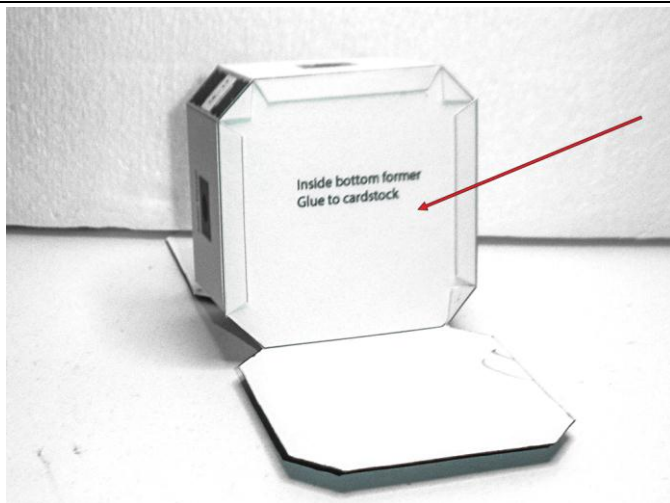
THEMIS

Time History of Events of Macroscale Interactions During Substorms
1/15 Scale Paper Model Instructions

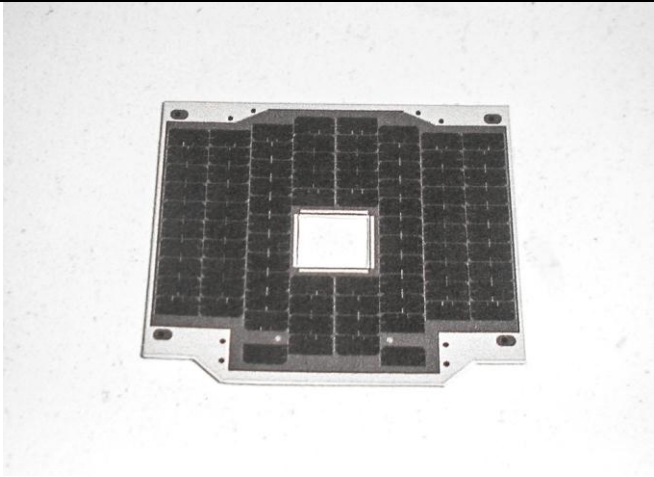




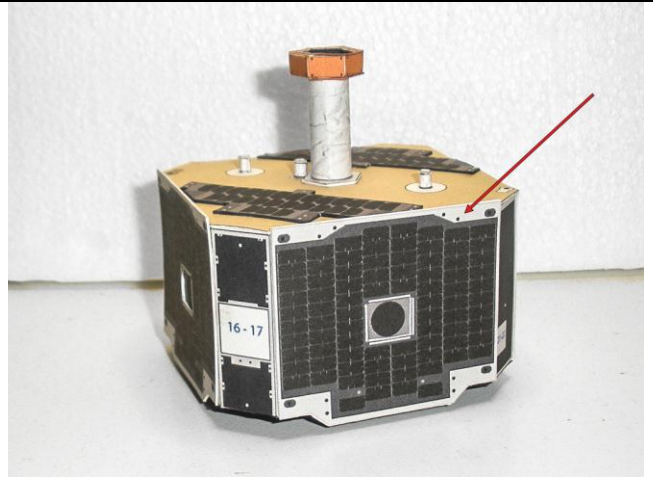
Poke two holes on the Black dots on the top and on Part 10. Part 10 fits inside bottom of the ring (Part 11). Glue the other parts onto their labeled areas. Poke hole on the Black dot on Part 6.



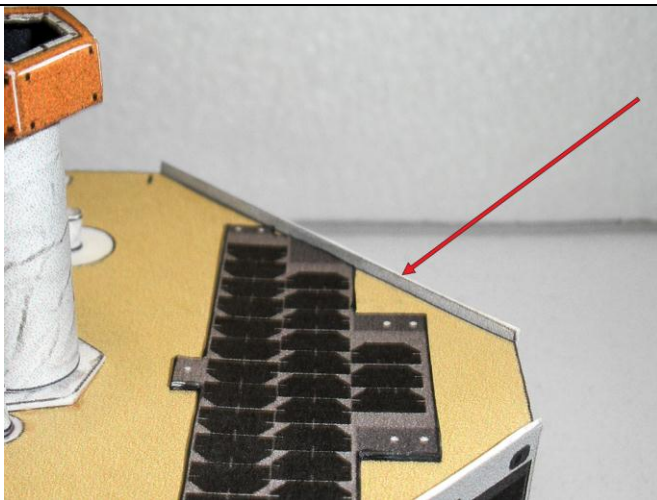
Poke small hole onto Black dot on Part 4 before assembly.



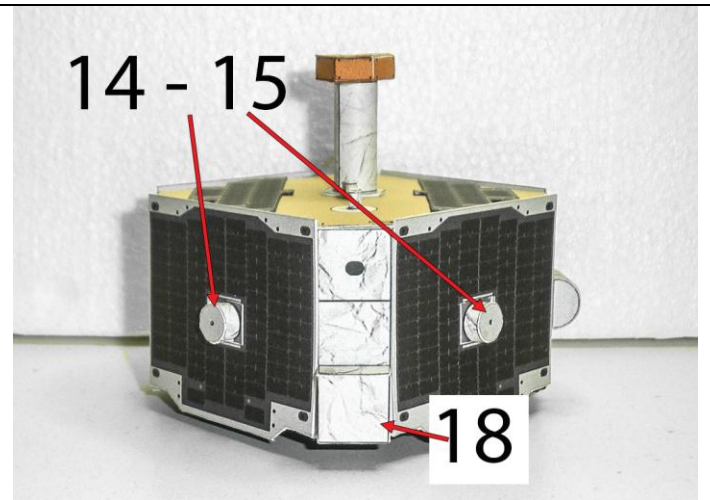
Fold, glue each solar panel back-to-back, then cut out the Blue squares.



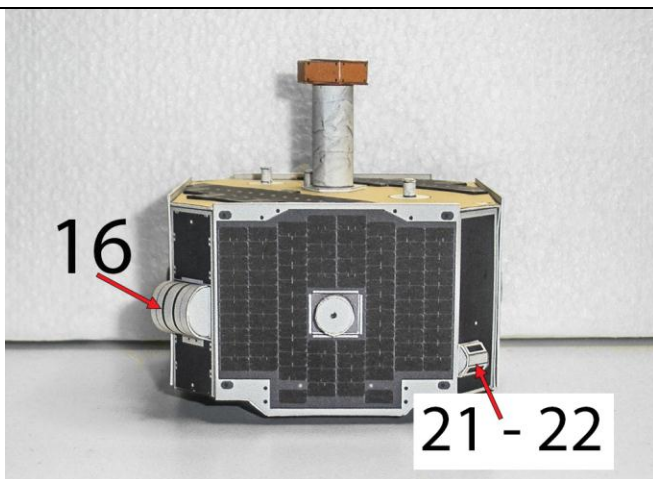
Glue onto the sides of the spacecraft



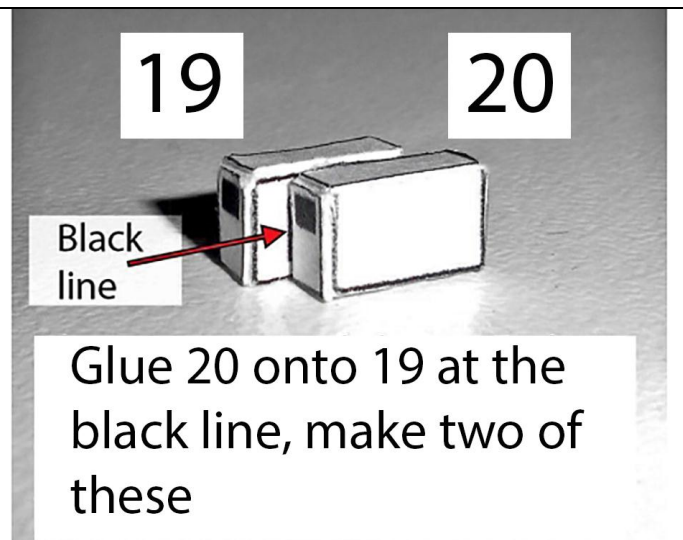
The grey area at the top behind the solar panel should extend above the top as shown.

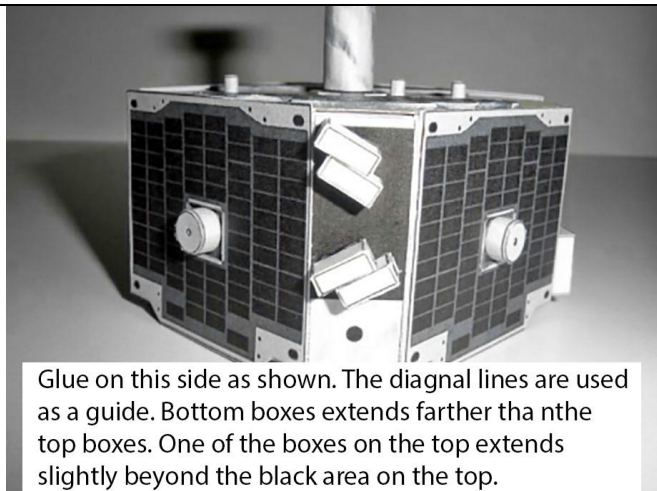


Poke small holes on 14 first. These are glued into the openings of the solar panels.

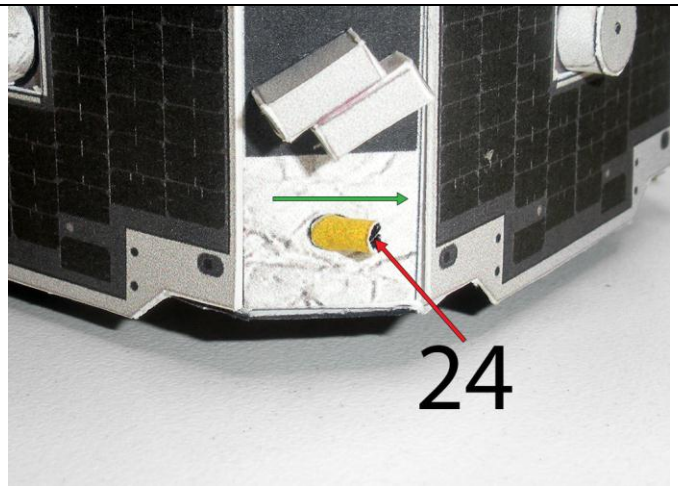


Glue 22 onto 21, then glue onto the labeled area.



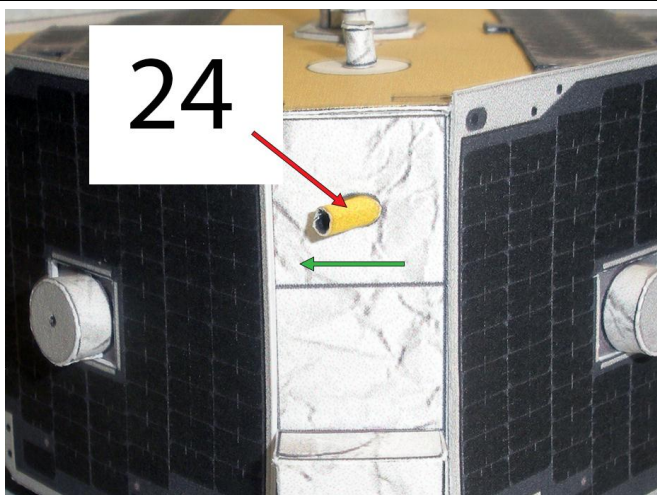


Glue on this side as shown. The diagonal lines are used as a guide. Bottom boxes extends farther than the top boxes. One of the boxes on the top extends slightly beyond the black area on the top.



24

Glue onto the Black oval area with the open end pointing the same direction as the green arrow.



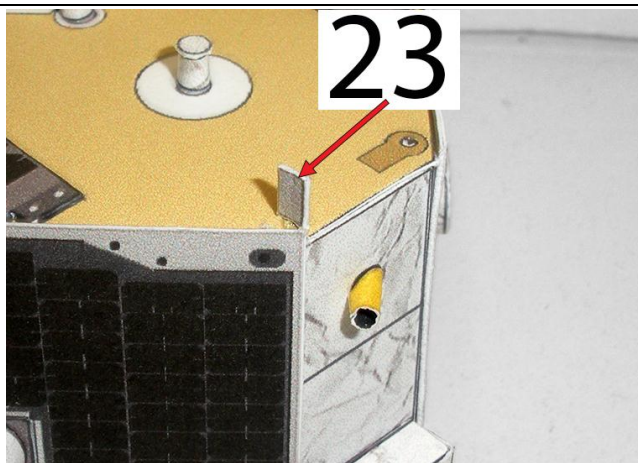
24

Glue the other onto the Black oval area with the open end pointing the direction as the green arrow.



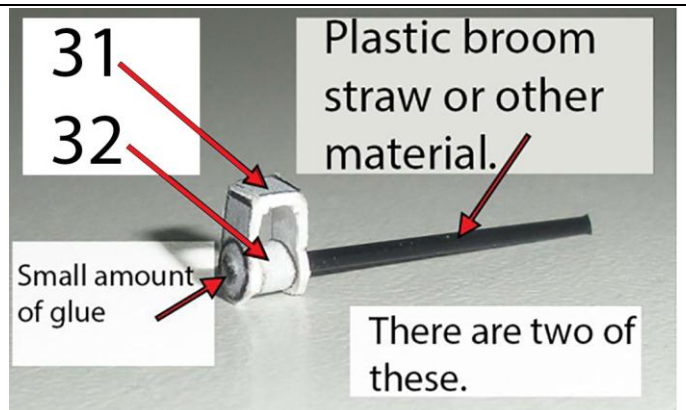
8 - 9

Poke small hole on part 8.



23

Glue onto the two black lines on the top.



31

32

Plastic broom straw or other material.

Small amount of glue

There are two of these.

Poke small holes on Parts 31. Plastic broom straws acts as a shaft to create a pivoting joint. Apply small amount of glue at one end to hold the shaft in place and let dry. Cut off the remaining plastic broom straw from the other end. Squeeze the tabs on 32 together against Part 31 and apply some glue on other side of 31 to hold the shaft in place and let dry. Make two of these.

Glue both Parts 28 to cardstock, then back-to-back.

Glue 25 to an angled box.

Glue 28 onto the Black line on 25 as shown.

SCM

Curved end

28

25

Carefully glue the curved end to the hinge as shown.
The arm should be able to move while hold the hinge on place.

FGM

Small hole

Follow instructions on Parts files to build Parts 29 - 30

29

30

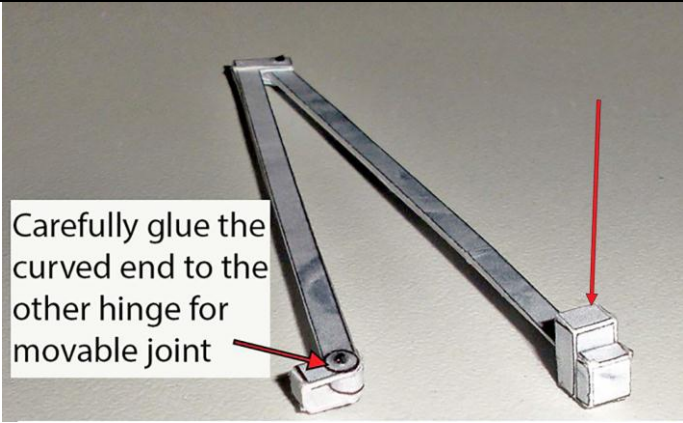
Apply glue at both sides to hold shaft on place

Squeeze the tabs on 29 against 30 before applying glue to the other side.

27

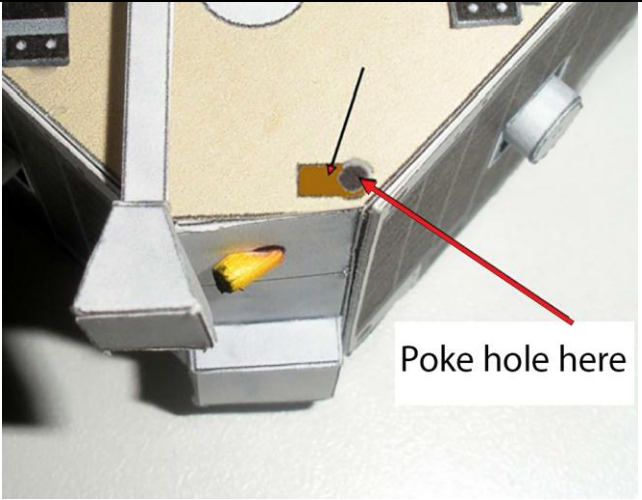
26

Glue 26 onto the labeled area on 27



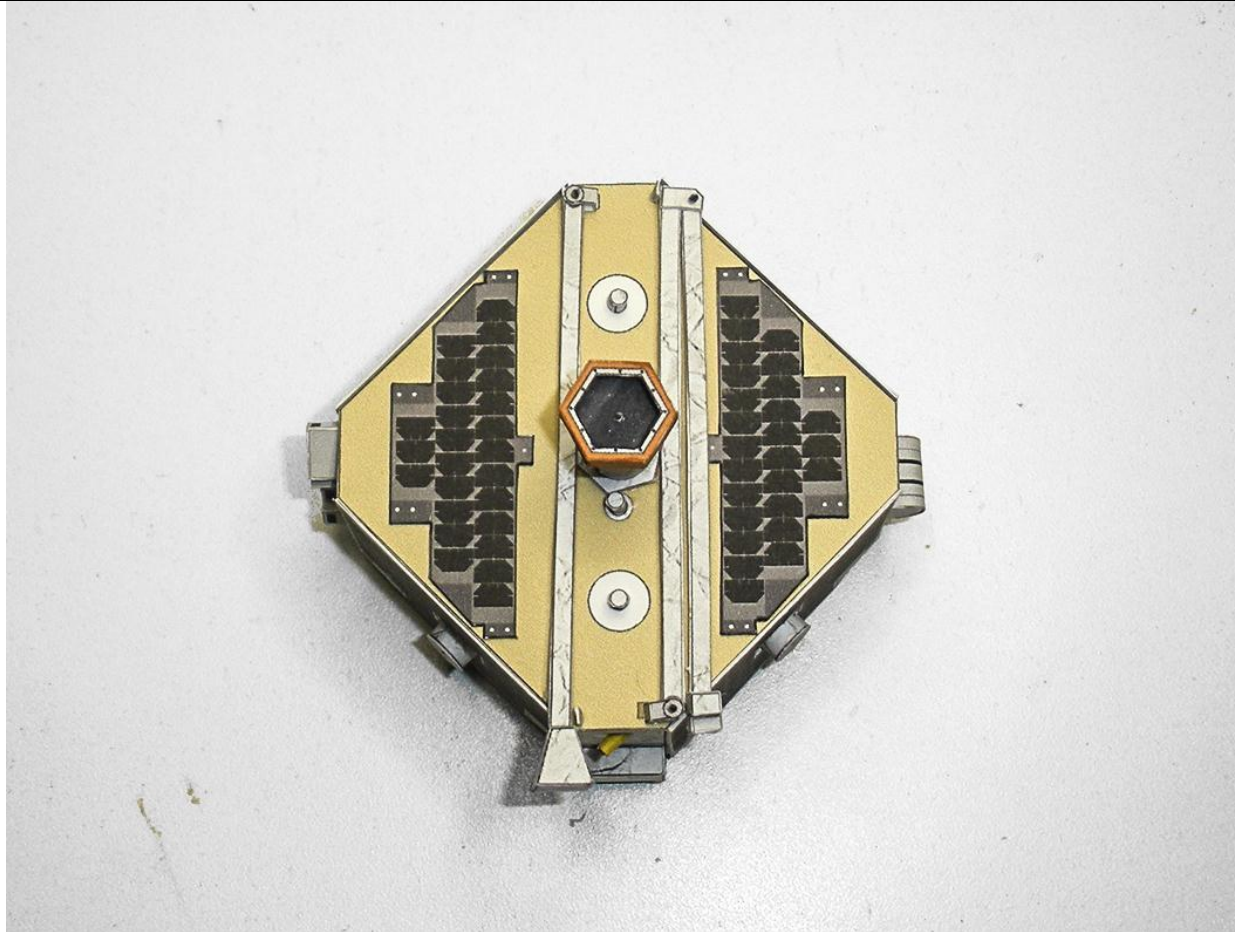
Carefully glue the curved end to the other hinge for movable joint

Glue the other end onto the Black line on 27.



Poke hole here

Glue FGM arm (Arm with two povot points) hinge here on the BROWN marker. The hole allows it the hinge to lay flat on the spacecraft. Do the dame for the other arm (Parts 25 and 28). See next page for reference.



Both arms should fold against Parts 23.



On the actual spacecraft...
the two Axial Booms are 16.4 feet each.
The four Radial Booms are 65.6 feet long each.

On this scale model (1/15 scale) they would be...
Axial Booms = 13.1 inches long each
Radial Booms = 52.5 inches each.
(If I calculated this correctly)

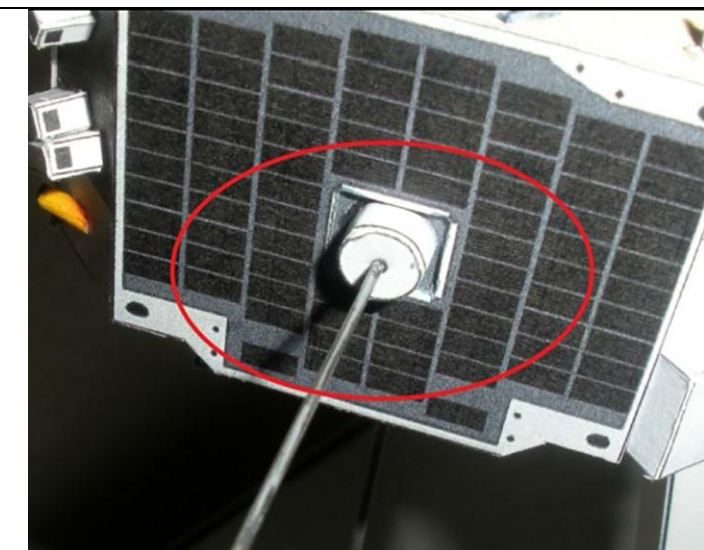
To save shelf space, I cut the Axial Booms at 7.5 inches each, painted silver and insert into the holes on the top mast (Part 4) and the bottom (Parts 8 - 9).

Move the wires around until you feel the bottom of each wire drop into the the holes you poked on the top and bottom of the body (Parts 10 on the bottom and Part 6 on the top). Glue these in place.

The Idea is that this will hold each boom straight up and down with the spacecraft. This worked well during this test build.

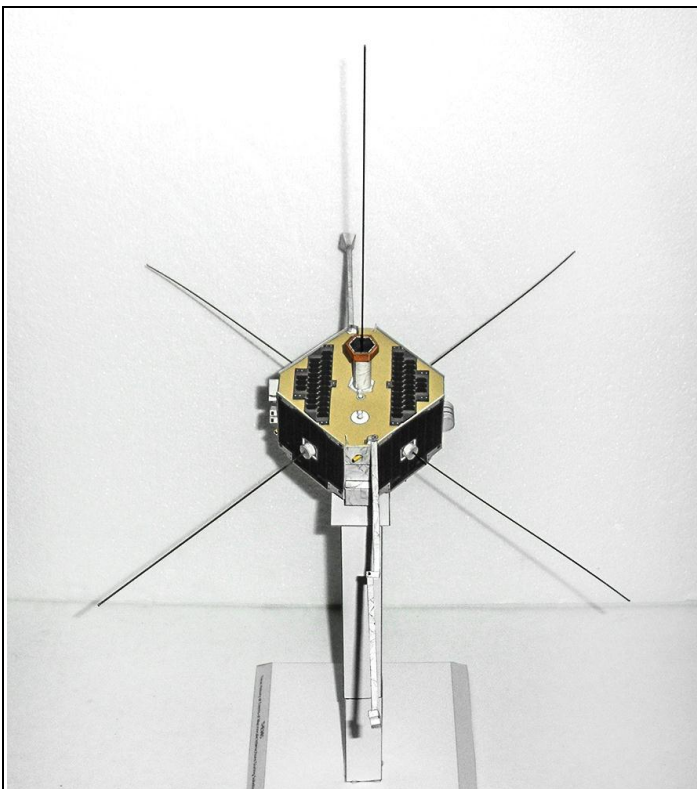
Music wires around 1 mm diameter was used for this.

The Radial Booms are cut at 5 inches.
Can use long plastic broom straws, stiff wires or similar Material colored light grey or silver..

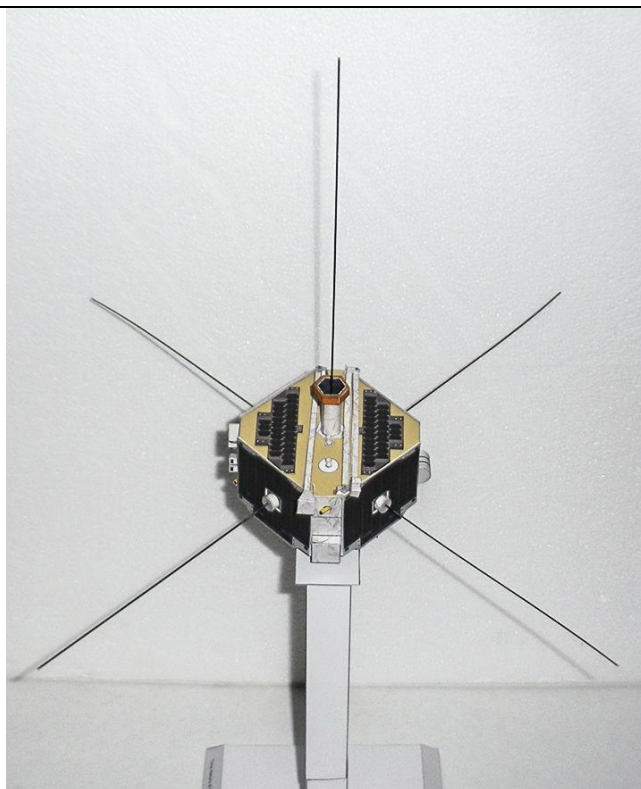


Glue the four Radial Booms into the holes on Parts 14 on the sides of the spacecraft as shown.

Your model is done.



Arms open



Arms closed