

SCM05



Acrimsat Spacecraft Assembly Instructions

by
Space Cadet Models
in **1/12th Scale**

Thank you for your interest and purchase of our fifth kit. We have attempted to make the most detailed model that the scale size can

support. We hope it will be a fun build for you. The steps are laid out in the order in which we thought would make the best results, starting from the largest and most sturdy parts, to the most fragile parts being last.

We would also suggest applying foil to the parts before installing them, and leaving a little excess to help merge the part's foil into the foil next to or under the part. You, of course can foil it at any time you wish, but as more and more parts are added, the process will get more difficult.

We would also suggest looking through the Figures to familiarize yourself with the shape of the parts. This will help you make sure you do not cut off a portion of the part, thinking it is a part of the 3D printer supports.

ACRIMSAT FOILING AND PAINTING INSTRUCTIONS

Foiling:

It is important to understand that this model was designed to show the spacecraft in its' flight configuration. Generally the entire spacecraft is swathed in gold multi-layer insulation (MLI). The MLI is nearly flat (not wrinkled or crinkly) on the larger panels of the spacecraft bus. On smaller panels it appears wrinkled, and in very small areas it appears crinkled.

There is one area that we would suggest that you foil first and with the overlap, as shown in Figure #1. When you install the radiators, from Step #7, they will cover the overlapped foil and make sure that there are no areas that are not covered with foil still showing.

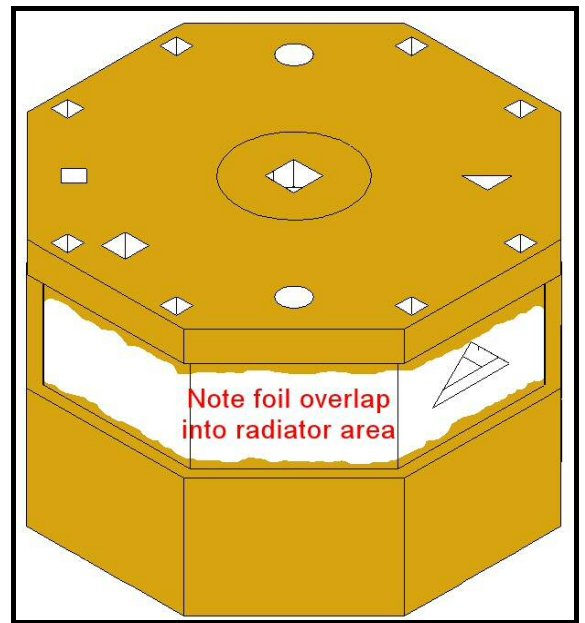


Figure #1

Painting:

Use the following colors of paint and foil to complete your model as indicated by the color icons listed below and as shown in Figures #2 and #3.



Black Paint



Copper Paint



Gold Foil



Gold Paint



Silver Paint (or foil if your adventurous)



White Paint

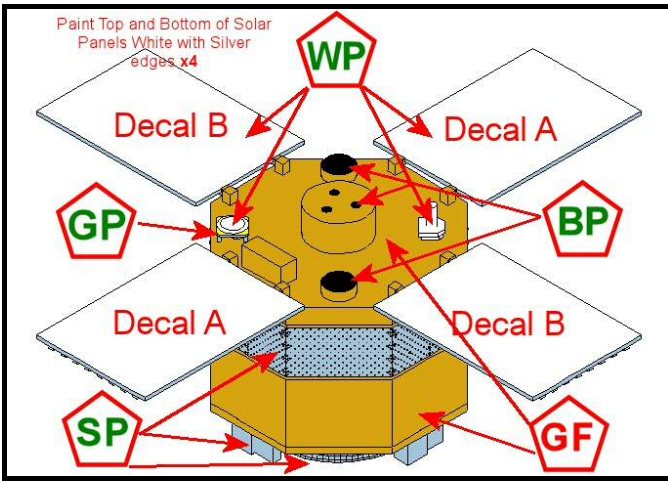


Figure #2

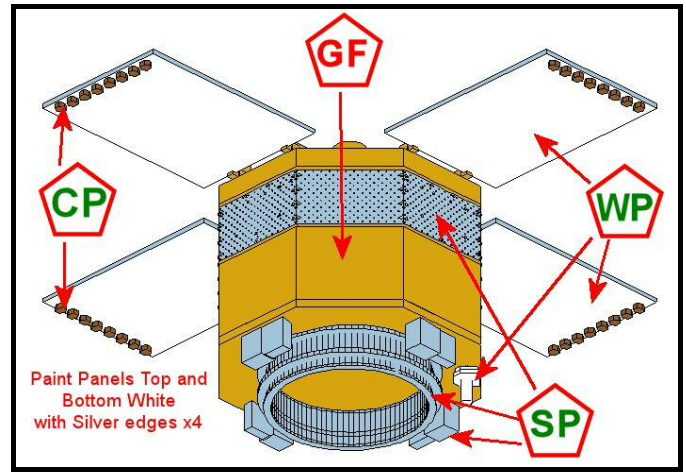


Figure #3

Decal Placement

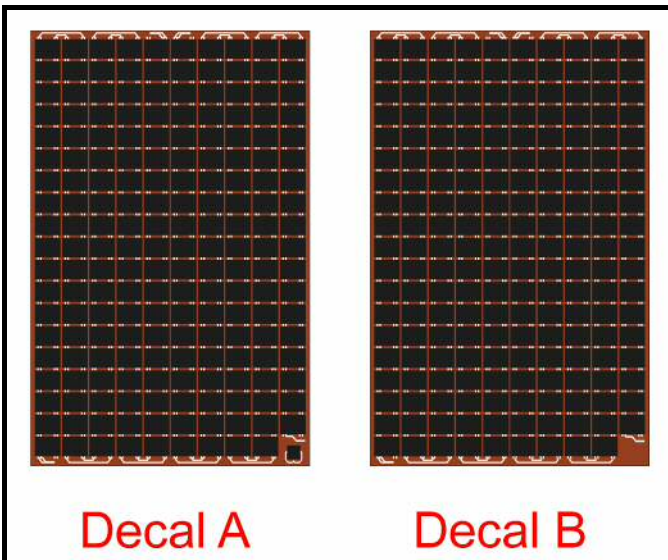


Figure #4

Figure #2.

When placing the solar panel decals, please note that Decal A has a small, single square solar cell in the lower right corner. This is shown in Figure #4. This small cell is placed closest to the body in the locations shown in Figure #2. Decal B has an open area in the same location, as the single solar cell, on Decal A. This open area is also placed closest to the body, in the locations indicated in

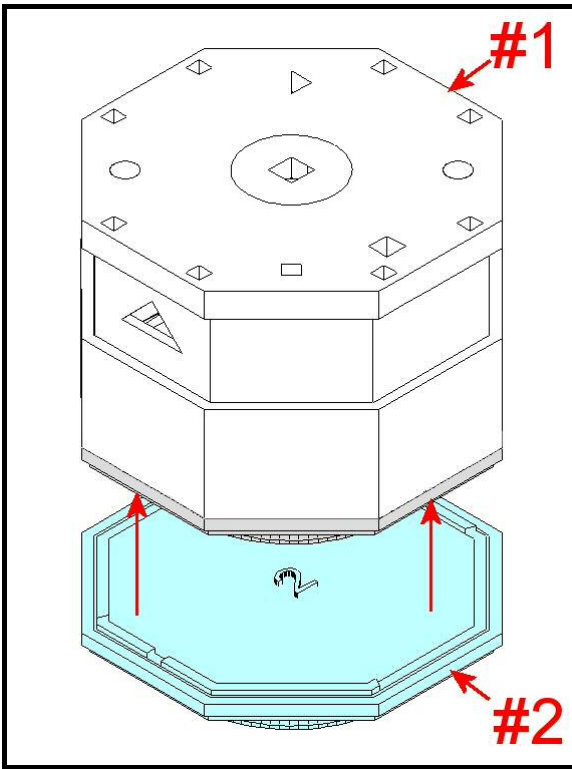


Figure #5

STEP #1

Find Body parts #1 and #2. Glue upper body Part #1 to lower body Part #2, as shown in Figure #5.

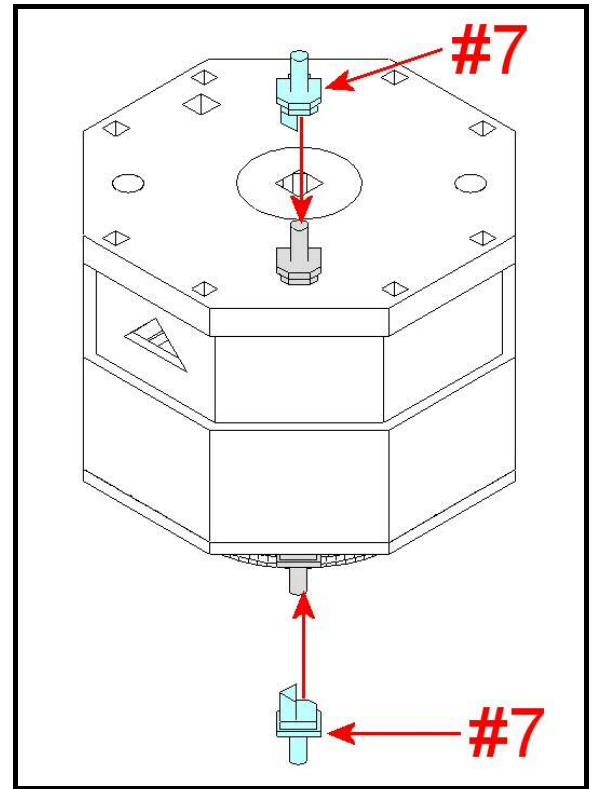


Figure #6

STEP #2

Find Part #7, there are two of these parts. Glue one antenna Part #7 to the top surface and one on the bottom surface, of the body, as shown in Figure #6

STEP #3

Find Part #6, there are two of these parts. Glue them to the top surface, of the body, as shown in Figure #7.

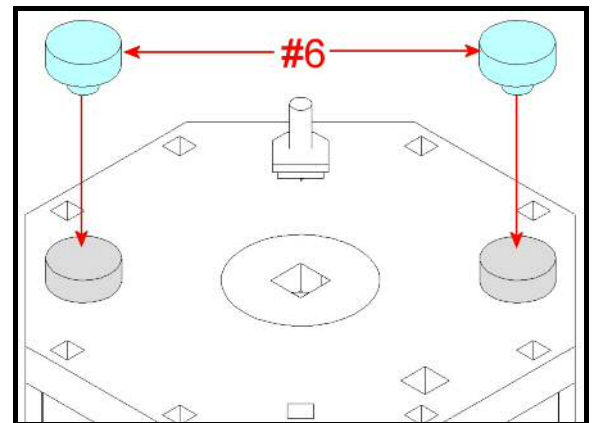


Figure #7

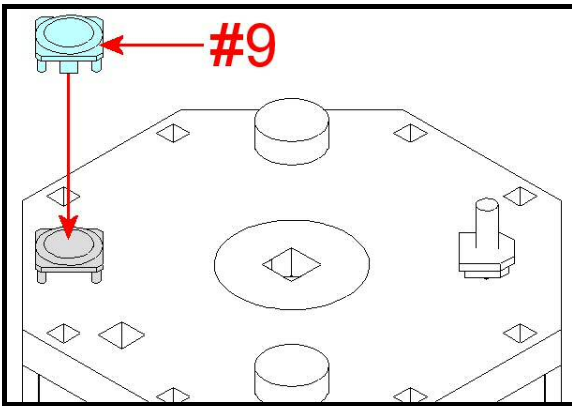


Figure #8

STEP #4

Find Part #9 and glue it on the top surface of the body, as shown in Figure #8. Due to the size of this part, it is suggested that you paint it, as per the color chart in Figure #2, before installing it. The center circles should be white and the surrounding surface and legs should be gold.

and legs should be gold.

STEP #5

Find Part #5 and glue it to the top surface of the body, as shown in Figure #9. Please check the orientation first, as the mounting key is offset and if it is placed incorrectly, the part will not be located centered on the solar panel mountings.

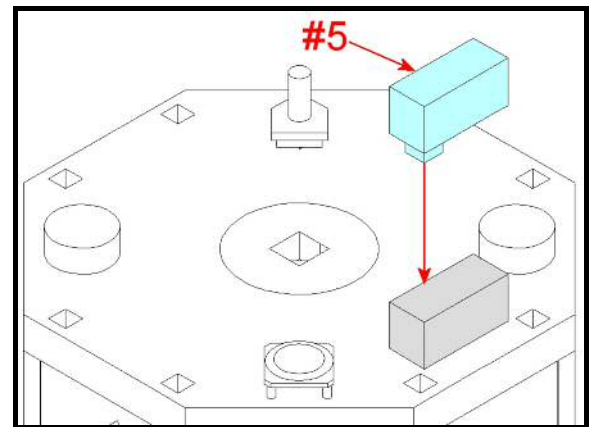


Figure #9

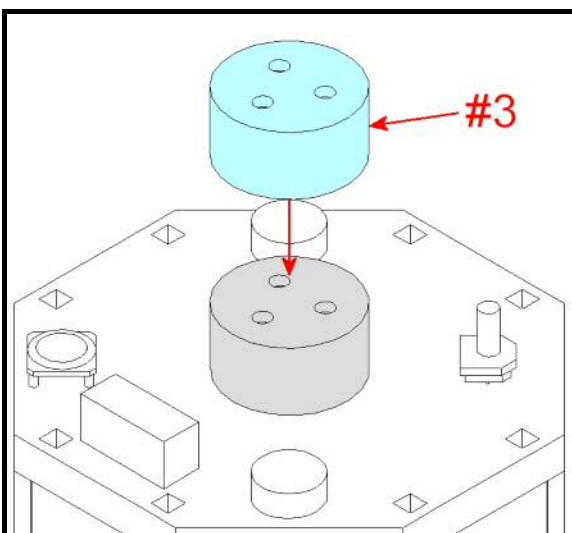


Figure #10

STEP #6

Find Part #3, the Acrim Instrument, and glue it to the center of the top surface, of the body, as shown in Figure #10.

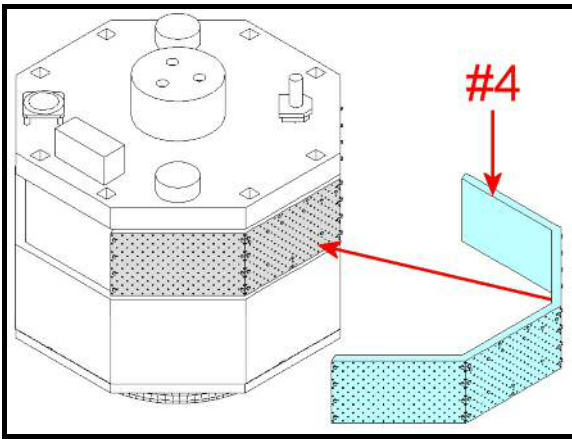


Figure #11

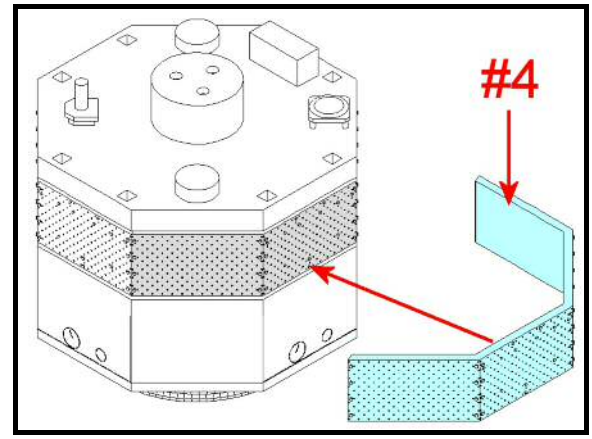


Figure #12

STEP #7

Find radiator Part #4, there are two of these parts. Glue one to the side of the body, as shown in Figure #11. Glue the second Part #4 to the opposite side of the body, as shown in Figure #12.

A Suggestion: The radiators, Part #4, should be painted a shiny silver. We would suggest using, as an option, Silver leaf. This will show the indentations well and can be polished to a nice shiny finish. If you use Silver leaf, be sure to use a clear sealer over it, so it will not tarnish.

Step #8

Find the solar panel launch locks, Part #11. There are four of these parts. Align them with the holes at the bottom of the body, and glue them in place, as shown in Figure #13.

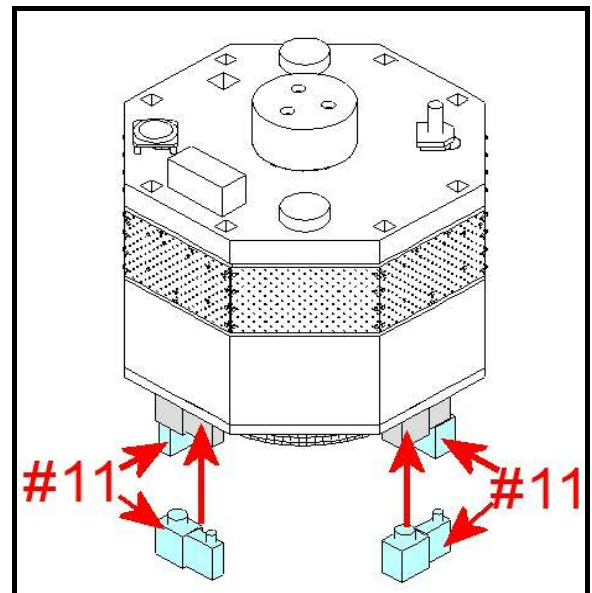


Figure #13

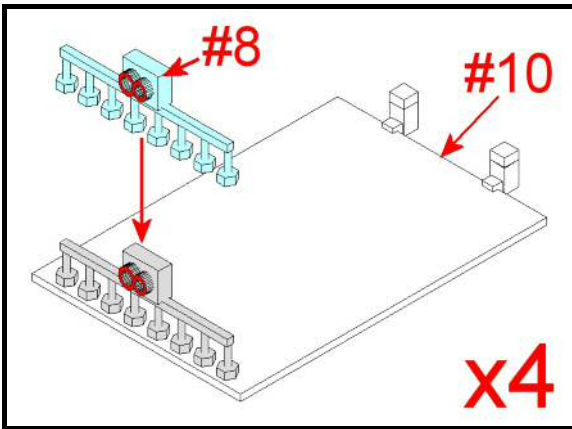


Figure #14

STEP #9

Find solar panel Part #10 and balance weights Part #8. There are four of each of these parts. After you have painted the sides and tops (the runner attachment side), of Part #8 a copper color, glue them about one millimeter from the bottom outer edge of the panels, as shown in Figure #14. Please NOTE, that the bottom of the solar panels have the mounting posts pointing up into the air. You will need to do this four times. Once the glue is dry, cut the runner away from Part #8, as shown in Figure #15. Do this on all four of the panels and then sand the tops flat, if needed, and touch up the copper paint.

panels, as shown in Figure #14. Please NOTE, that the bottom of the solar panels have the mounting posts pointing up into the air. You will need to do this four times. Once the glue is dry, cut the runner away from Part #8, as shown in Figure #15. Do this on all four of the panels and then sand the tops flat, if needed, and touch up the copper paint.

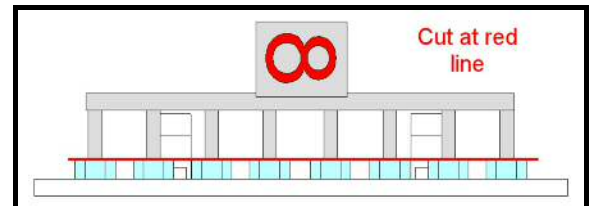


Figure #15

STEP #10

In this last step, glue all four of the solar panels so the mounting tabs glue into the square holes on the top of the body. Make sure the panels are perpendicular to the top surface of the body when glued in place. You can now add the decals for the panels as described in the Decal Placement instructions.

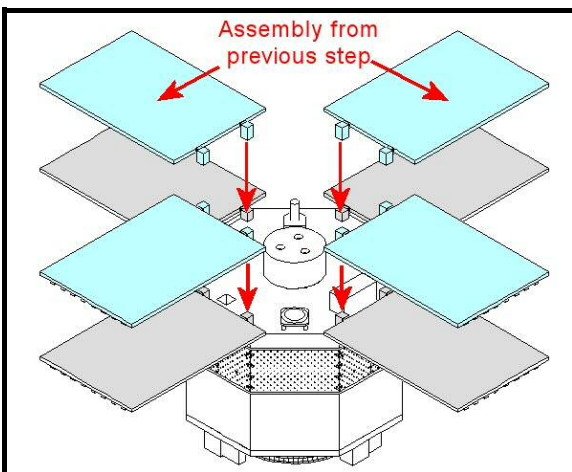


Figure #16

Thank you for your purchase and we hope you have enjoyed our kit.