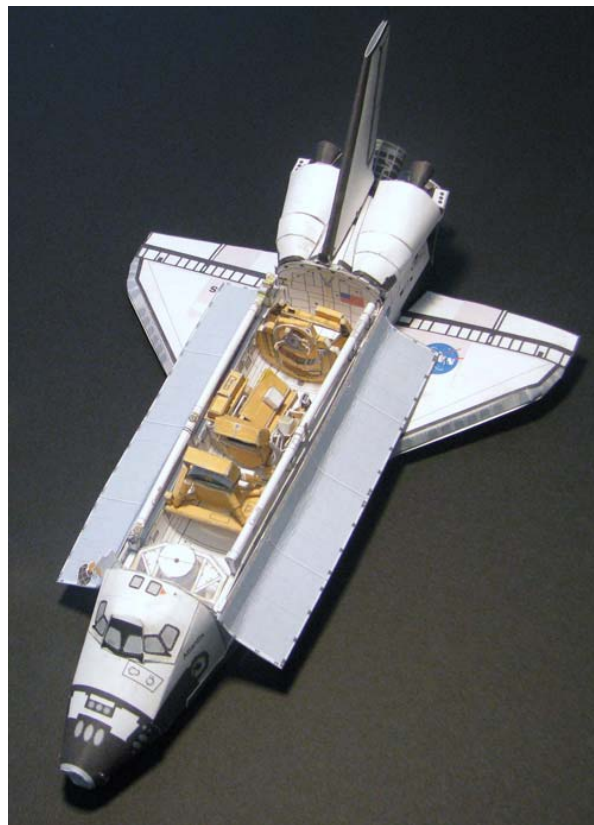




© 2009

Assembly Instructions for STS-125 payload (Hubble Servicing Mission 4)



A SPECIAL THANKS!

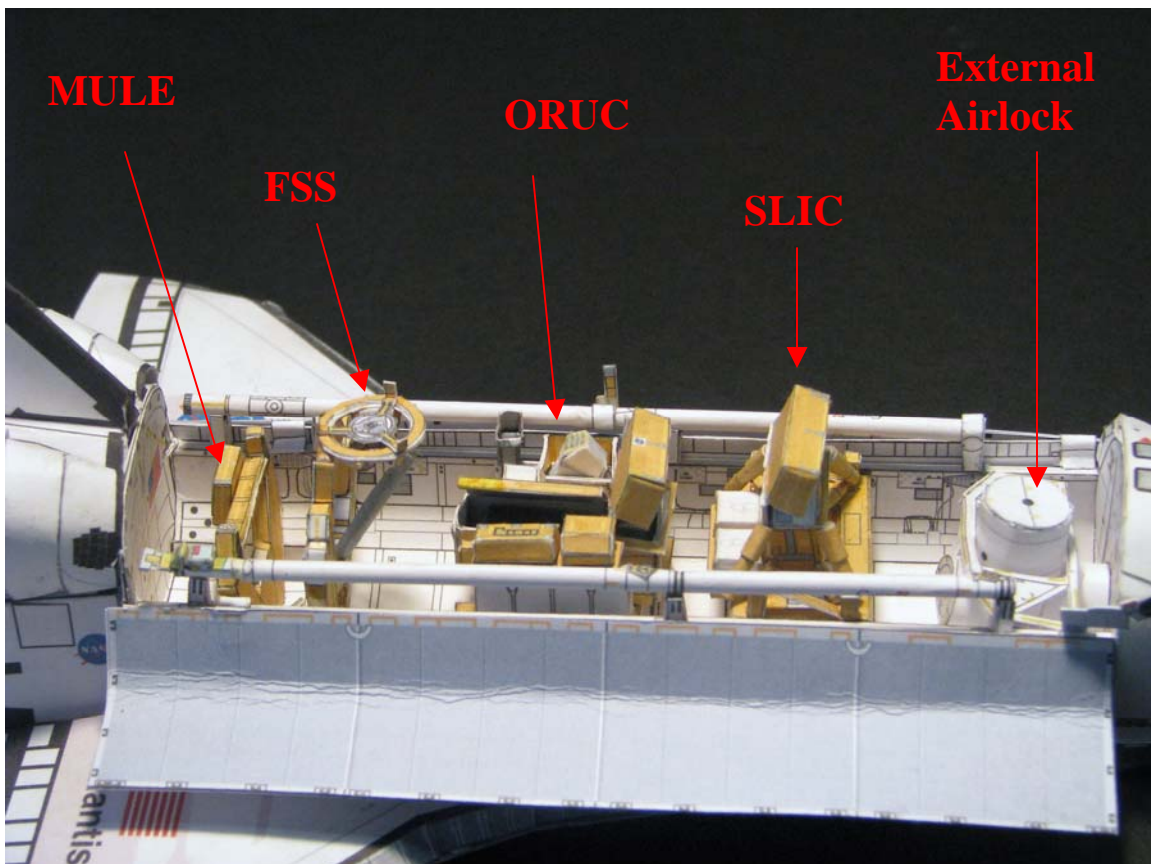
This Assembly Manual for STS-125 was made possible with the collaboration of my new beta tester Aaron Obrien (spaceboy7441). Aaron is a young man who has shown a lot of interest in my models and has demonstrated his talent by building them.

Most of the photos presented here in this manual belong to Aaron. I added extra photos to complete this manual. Note that the model parts are from the prototype version.

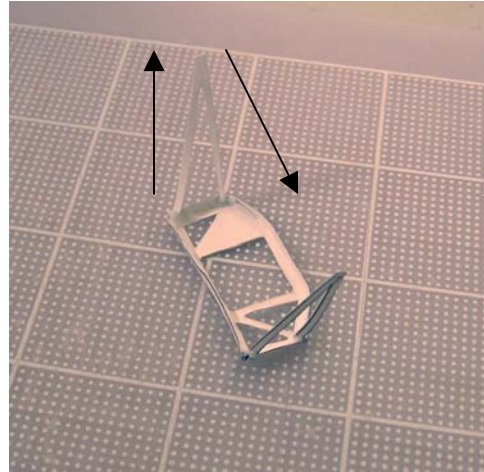
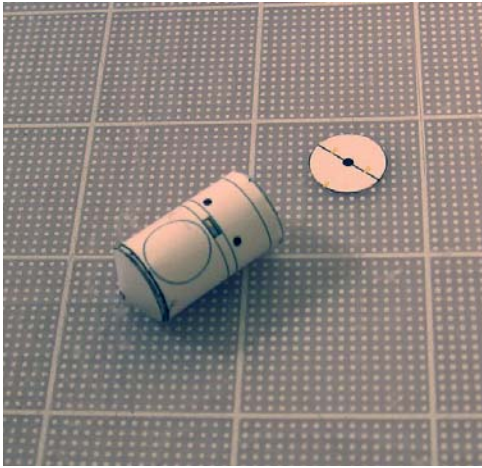
Final model varies in details.

The STS-125 payload is a very complex model due to its innumerate smaller parts and Aaron gets all the credit because he was able to assemble this difficult model just by following some drawings that I provided.

Thank you, Aaron!



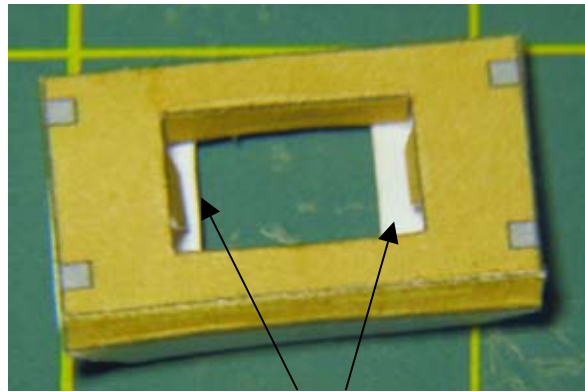
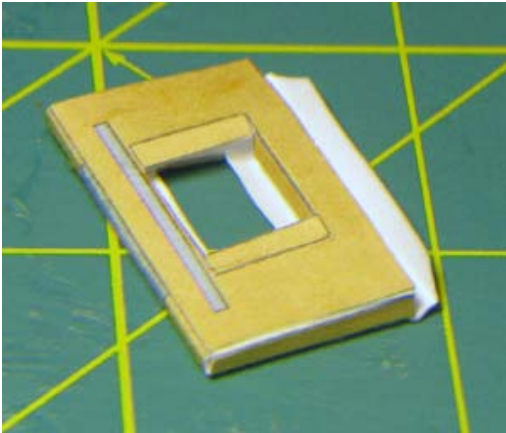
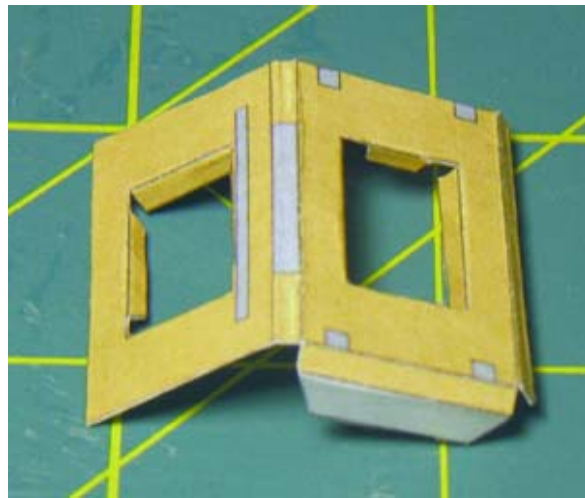
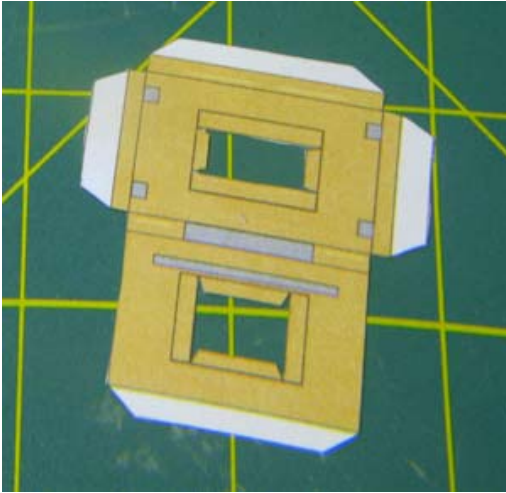
Building the External Airlock – Bays 1 and 2 (AXM photos)



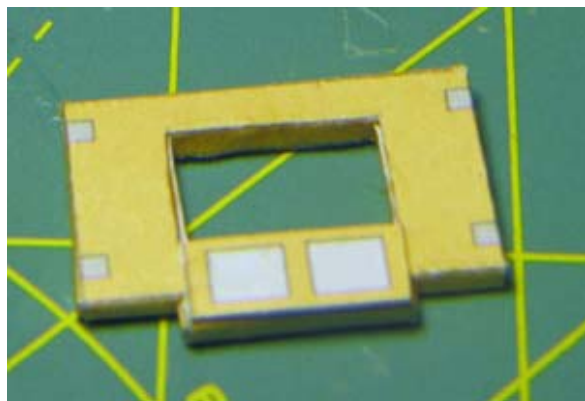
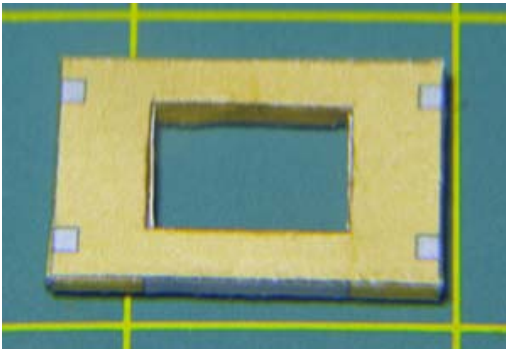
Make the first airlock as photo on the left. Right photo shows the support structure that will hold the airlock in place. Notice the position of the lateral beams.

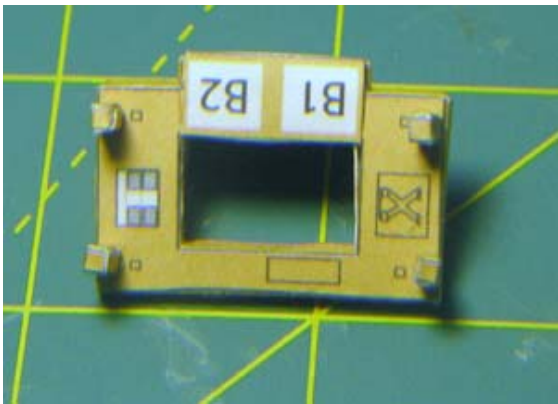
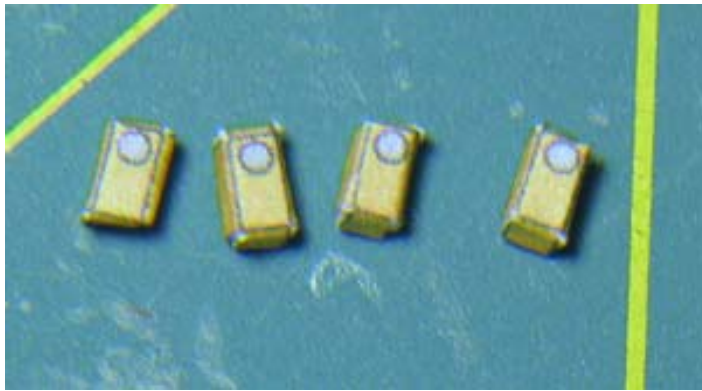
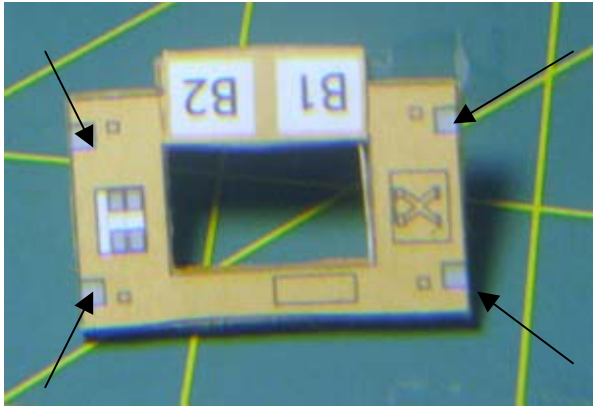
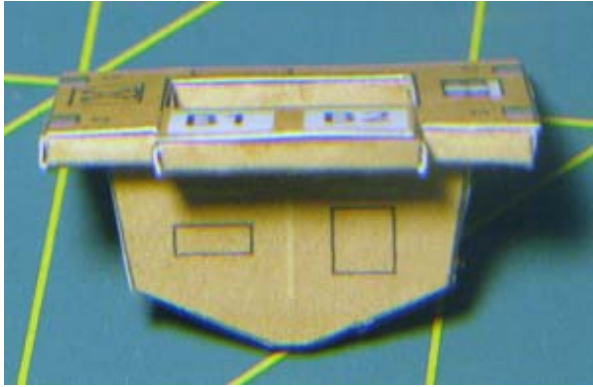
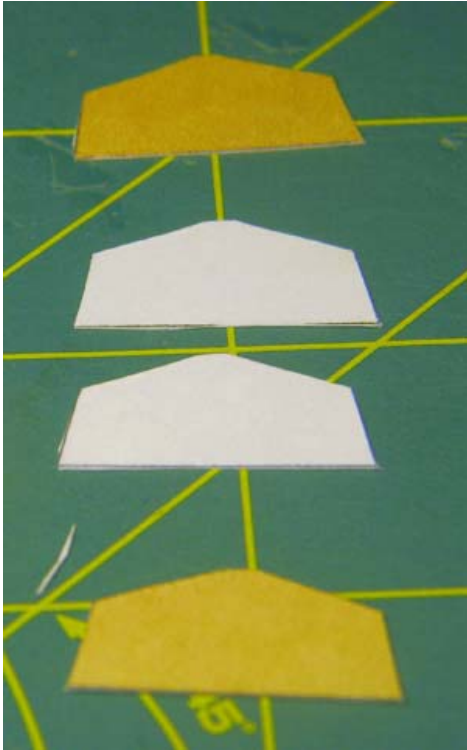


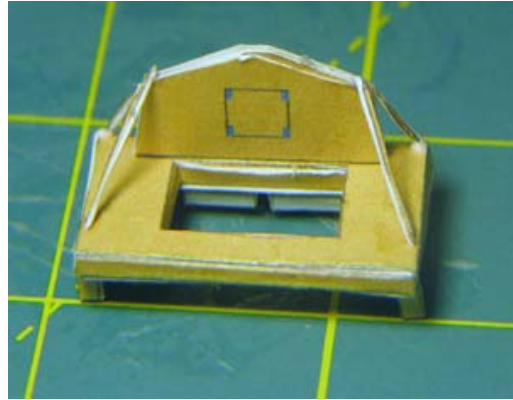
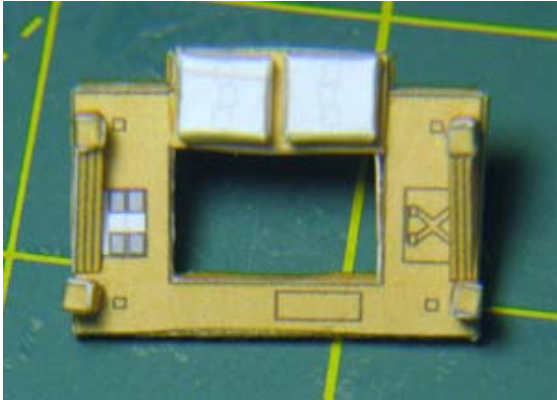
Building the SLIC – Bays 4 and 5



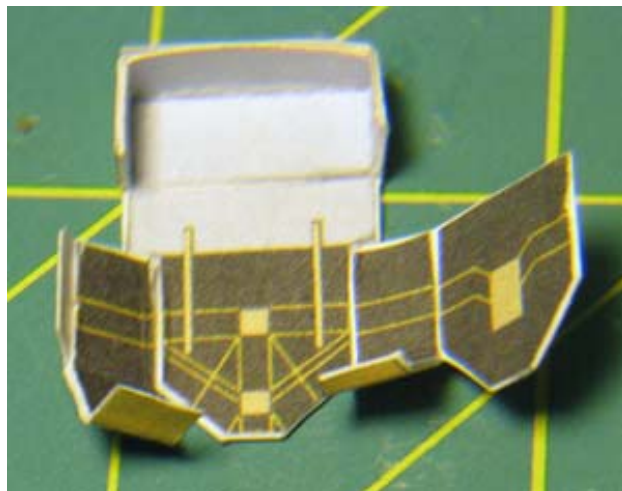
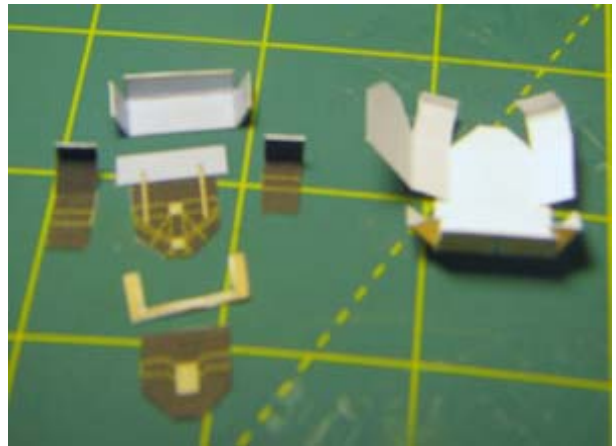
Note that the longer tabs will cover the smaller ones.



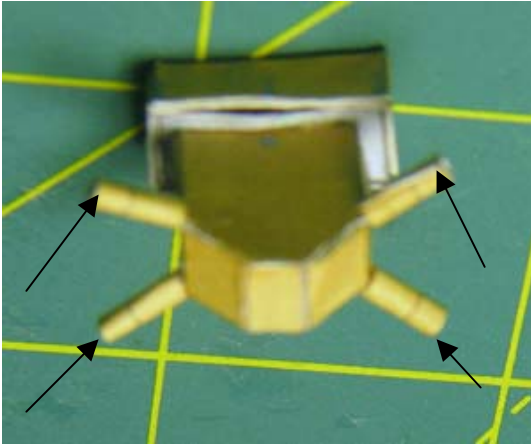




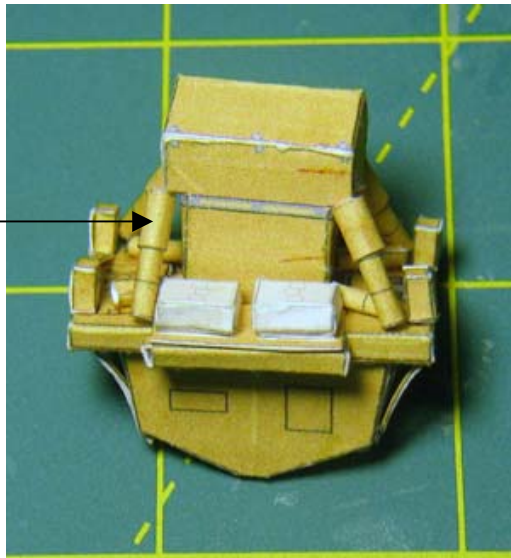
WSIPE (Wide Field Camera III container)



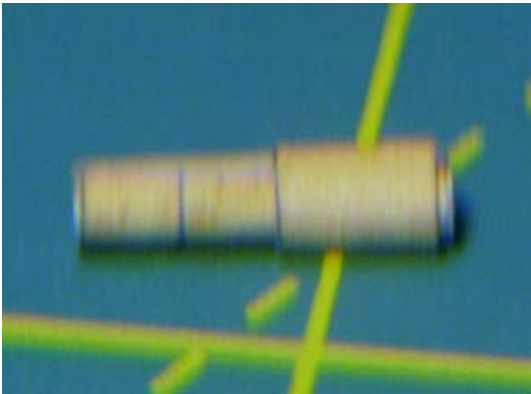
The interior color of the container will vary for the final model.

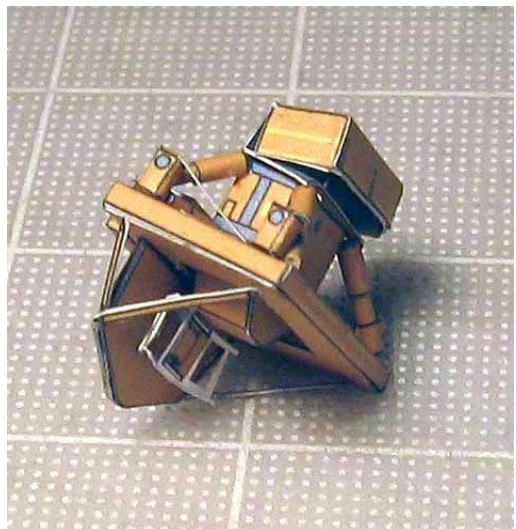
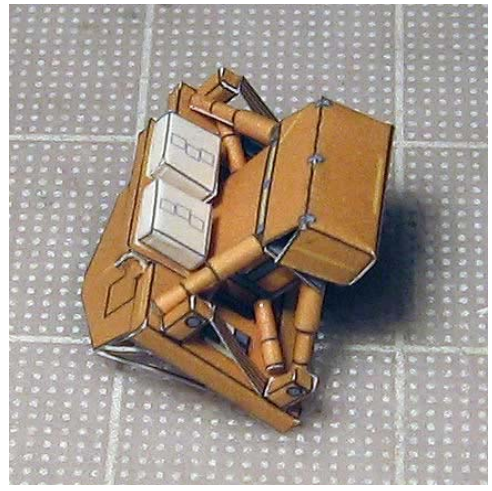
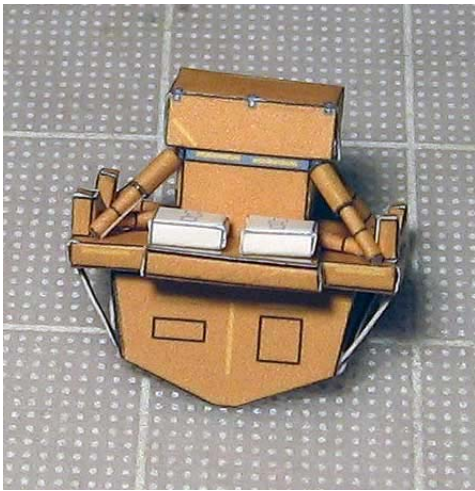
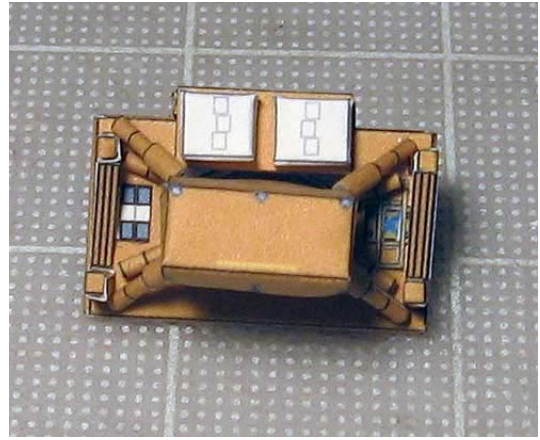
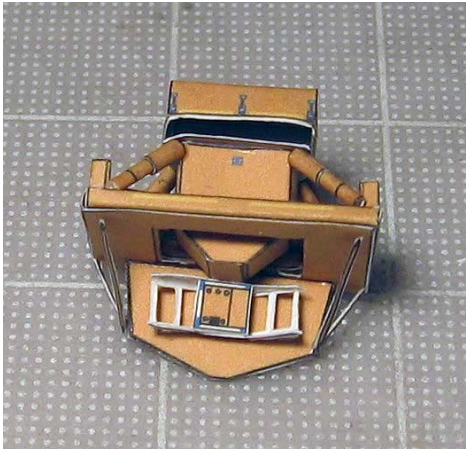


Lower struts shown here

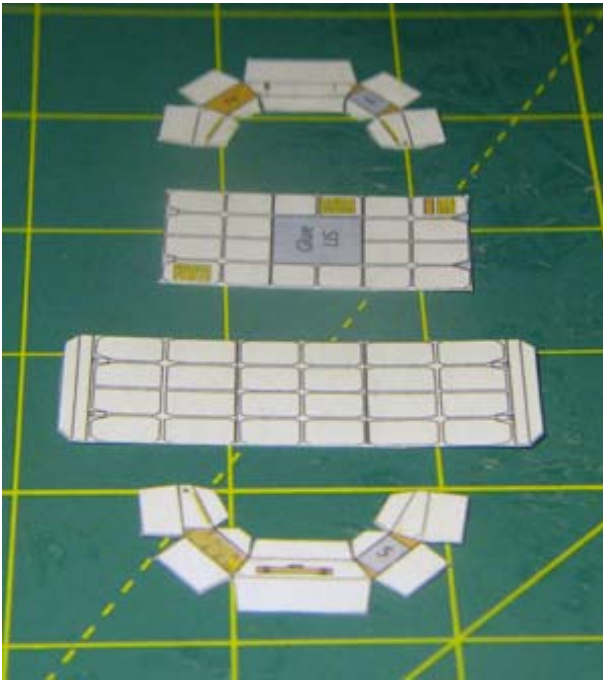


Upper struts.
Note that these have a cover to thicken the upper half.

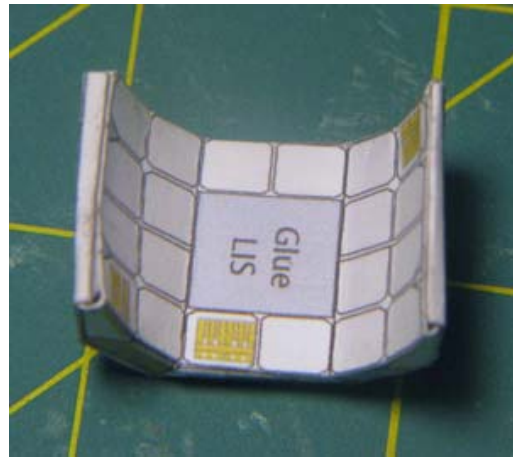
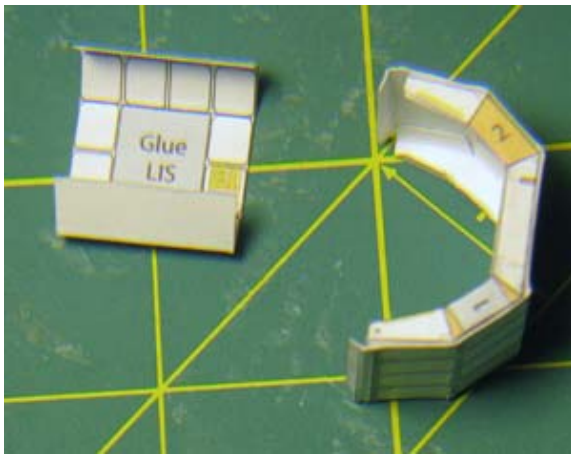
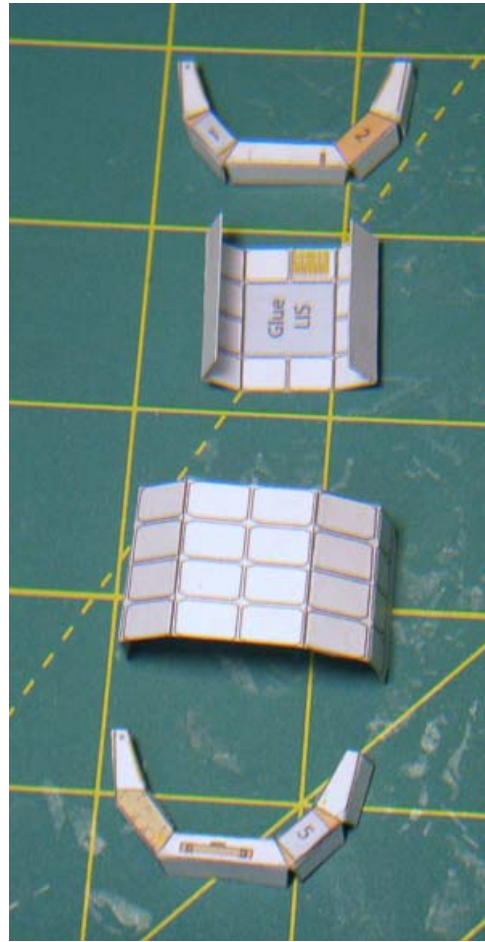


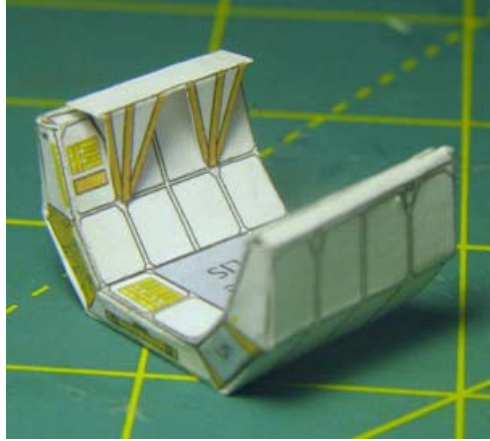
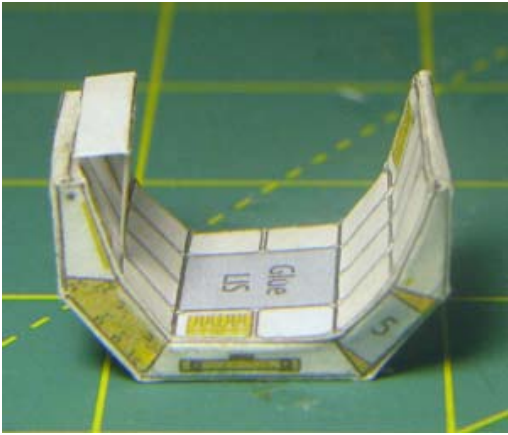
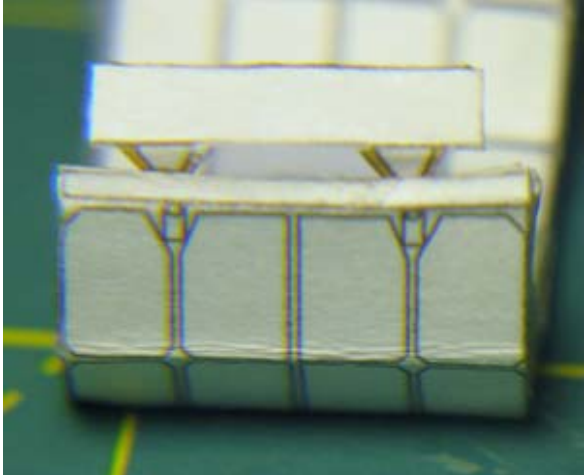
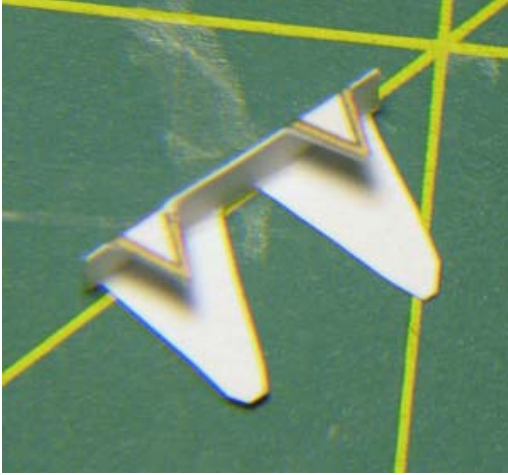


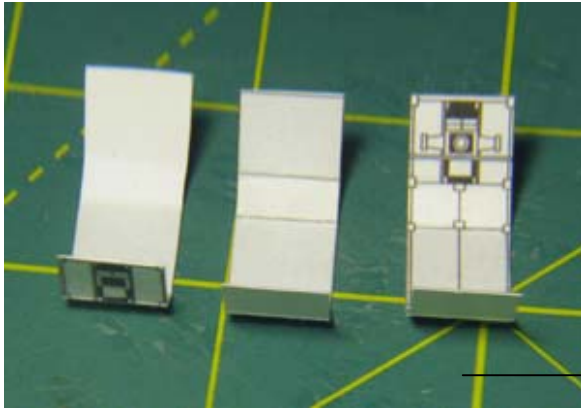
Building the ORUC payload - Bays 7 and 8



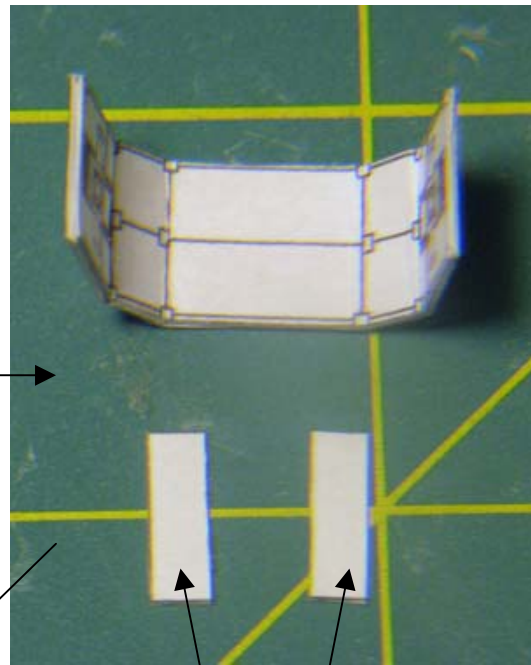
Steps to build the Spacelab cradle



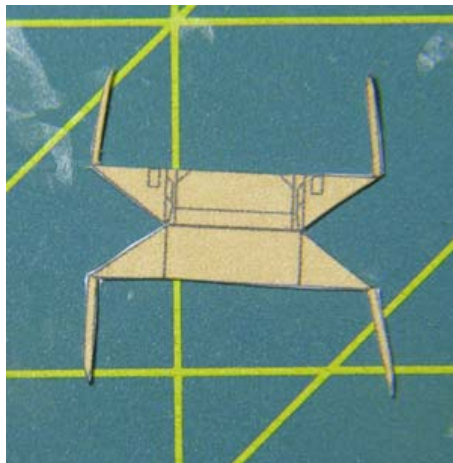
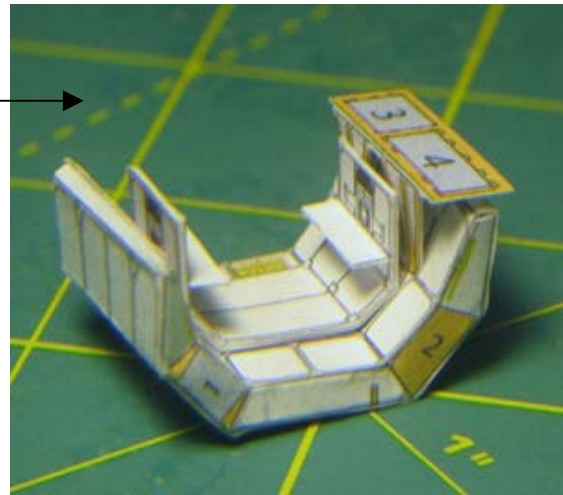
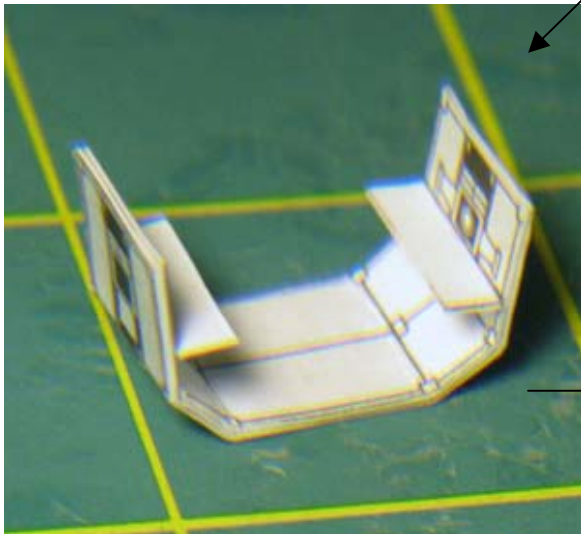




Steps to build the LIS (Load Isolation System)

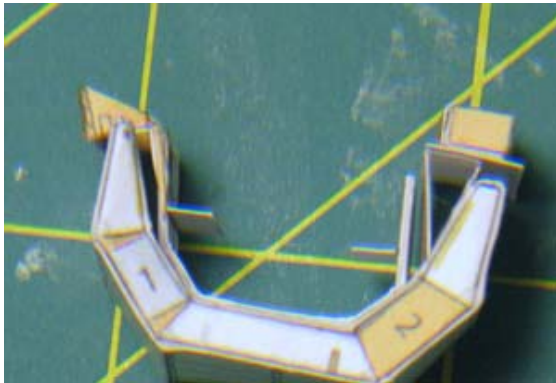
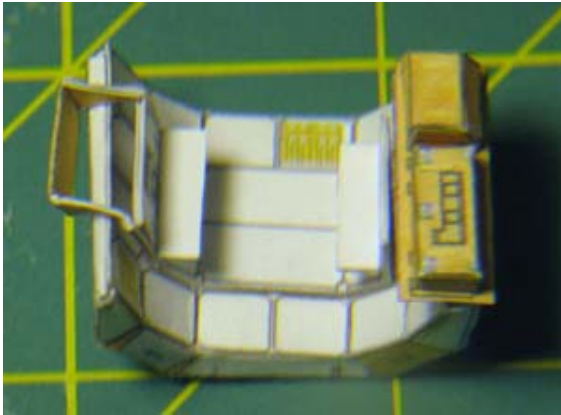


These tabs have been designed so the horizontal box or **ASIPE** will sit in between.

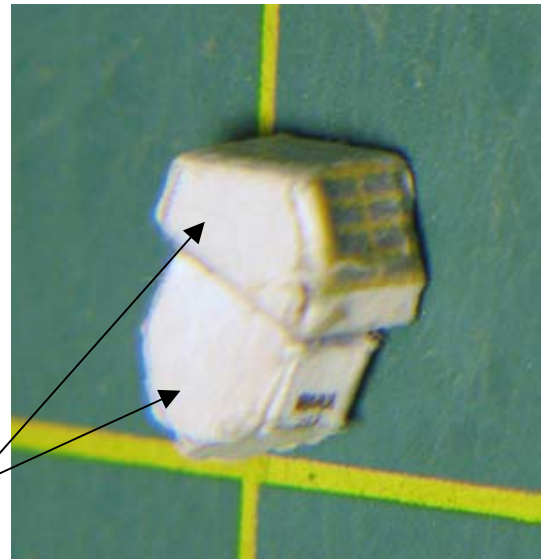


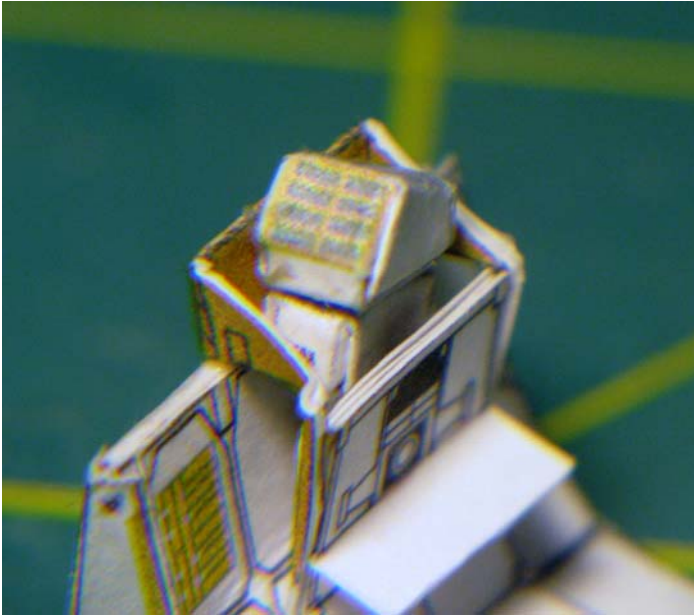


Piece that will support the IMAX 3D camera

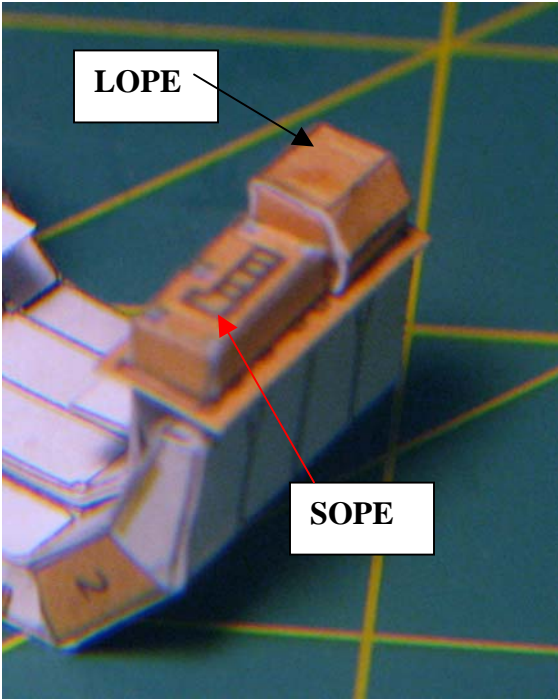


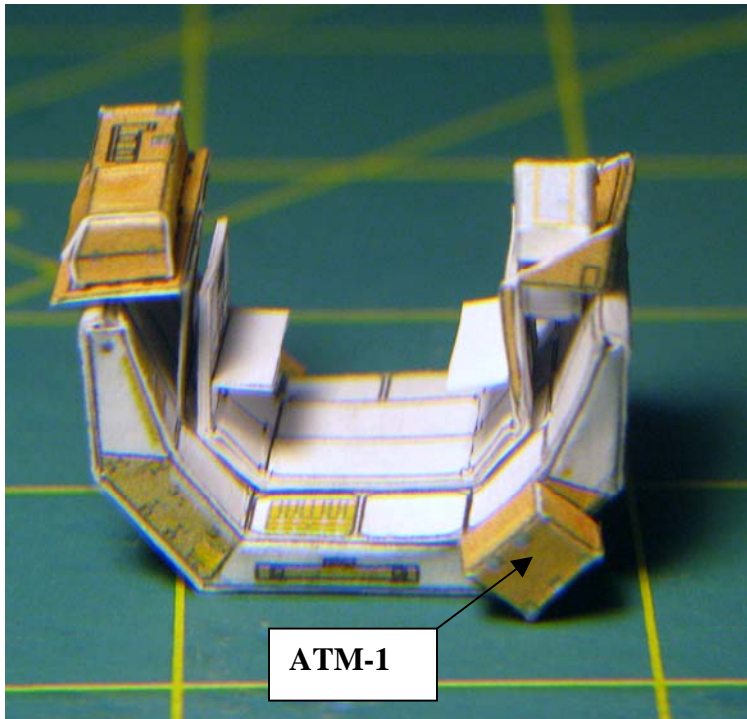
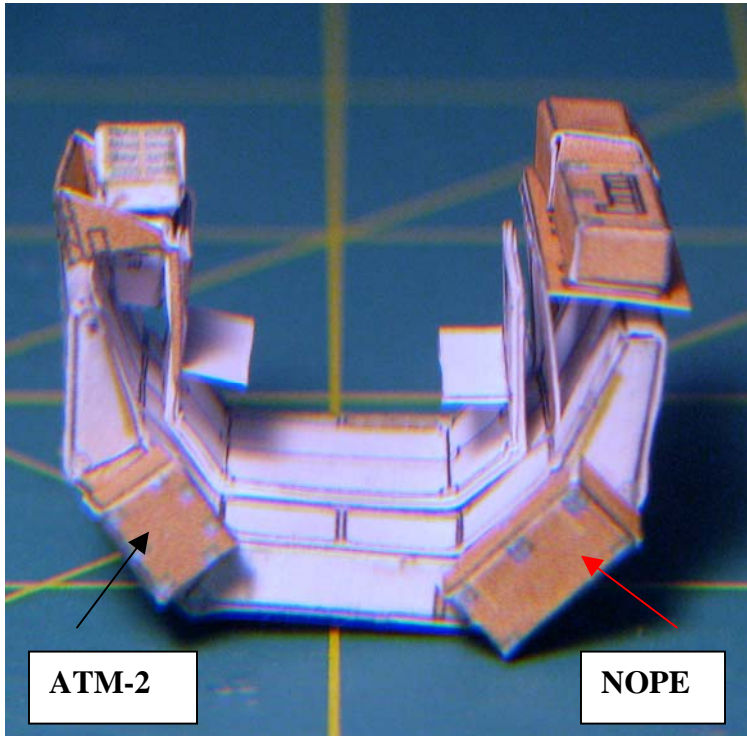
Note that the IMAX 3D camera consists of 2 pieces.

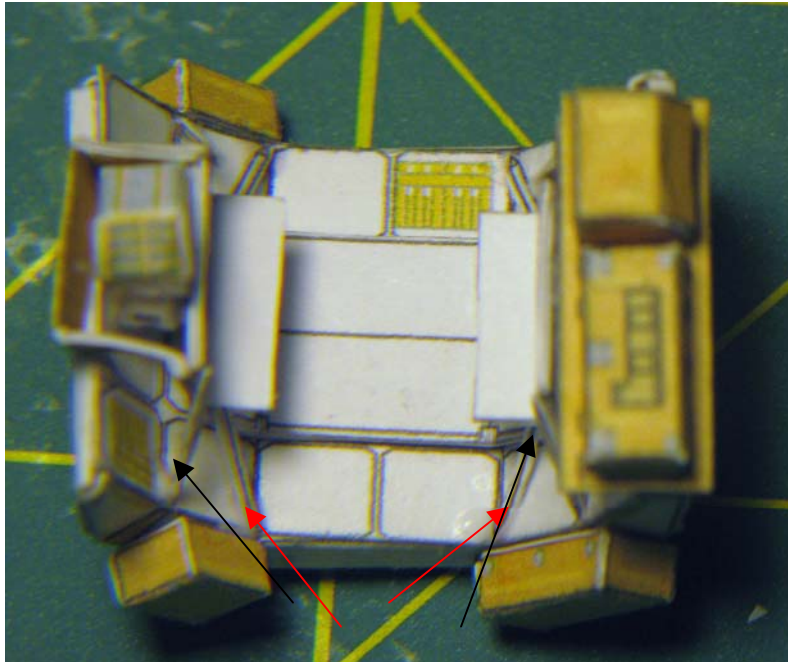




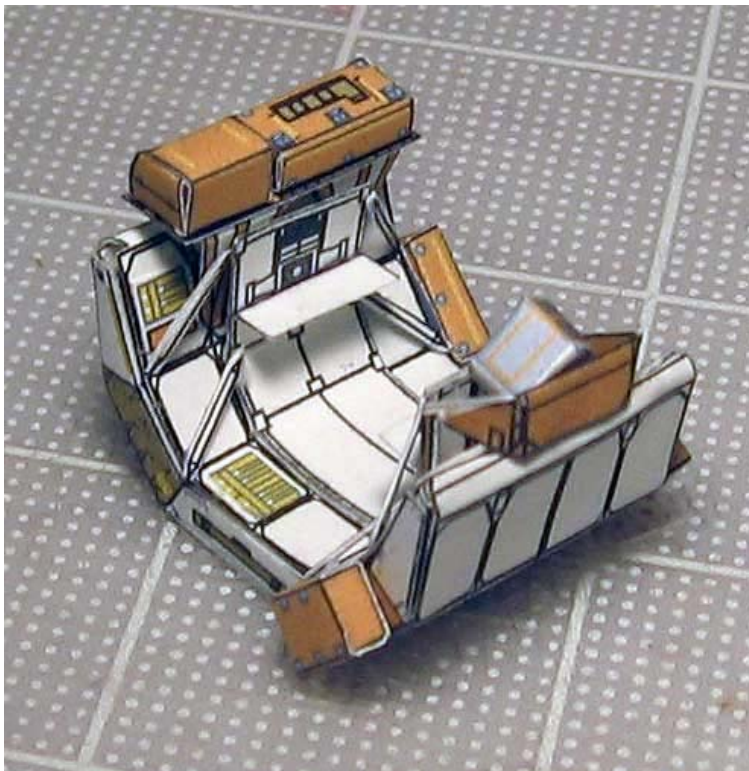
IMAX 3D location



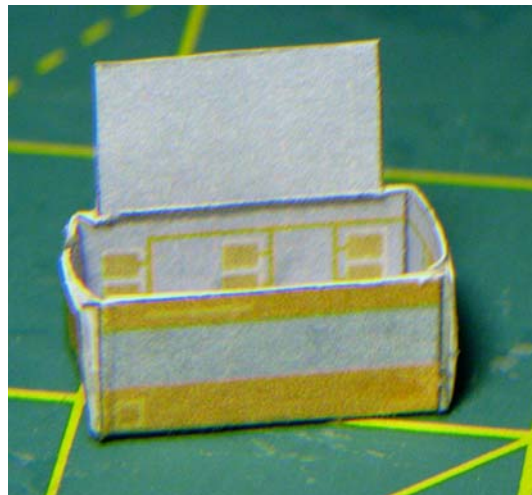
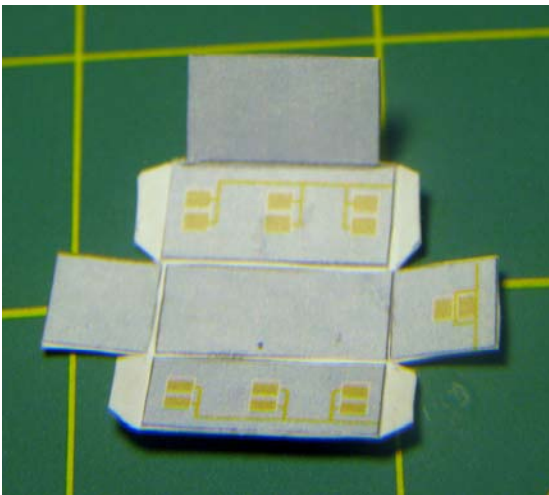
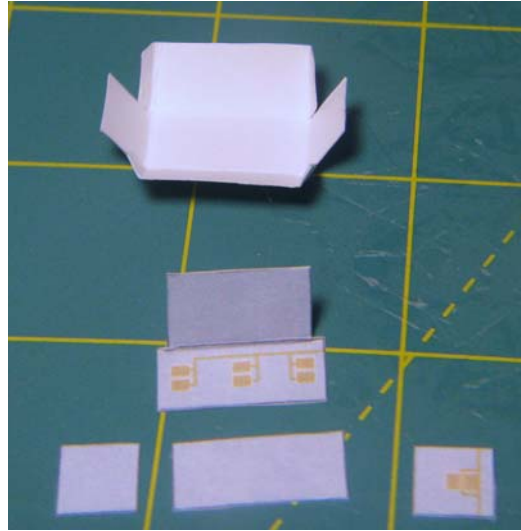
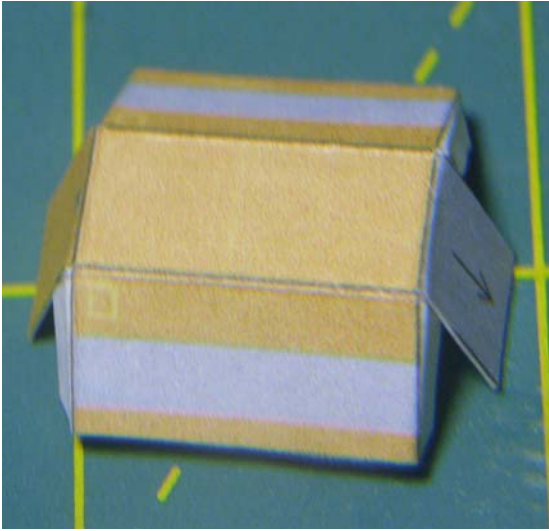




Compared to the real hardware, this model has little number of struts for the LIS.

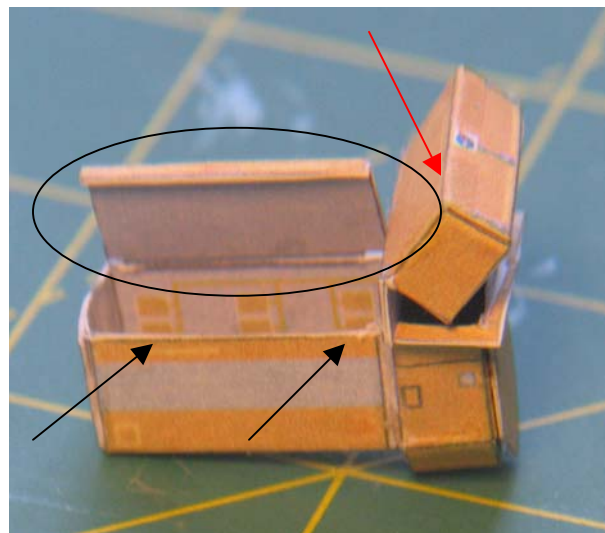


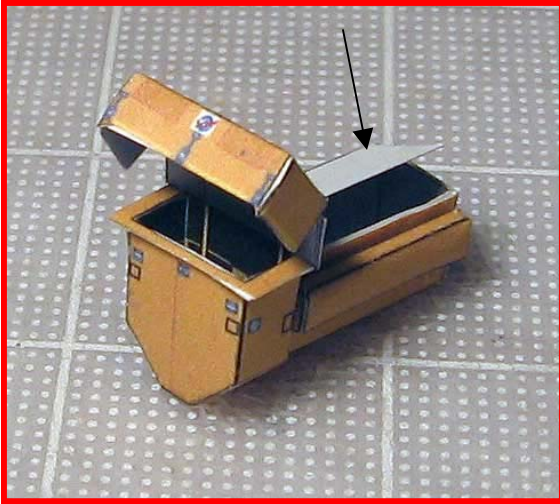
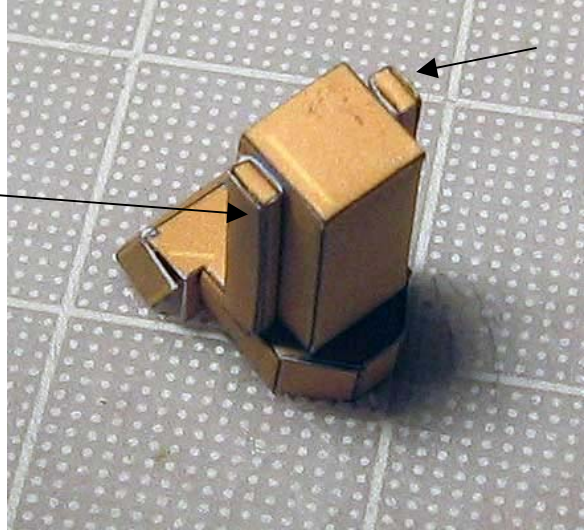
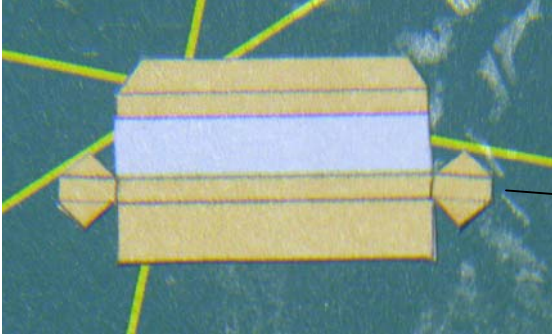
Container for ASIPE/COS



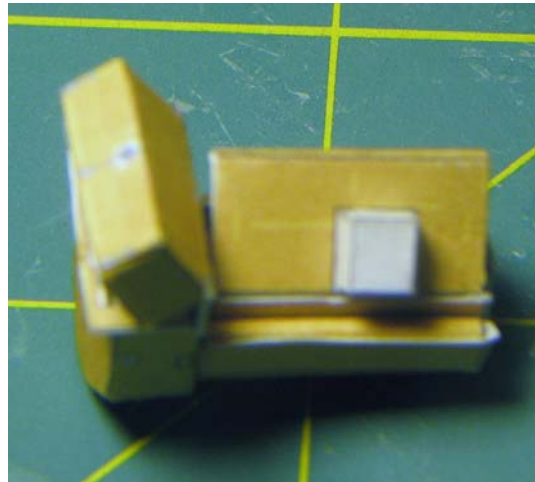
IMPORTANT: In error, the top door was misplaced on the COS container for this beta model. It should open the other way. The black arrows point where the hinge should be located.

The other structure is the FSIPE that contains the FGS, similar to the WSIPE (red arrow).





This is the correct position of the ASIPE/COS door.



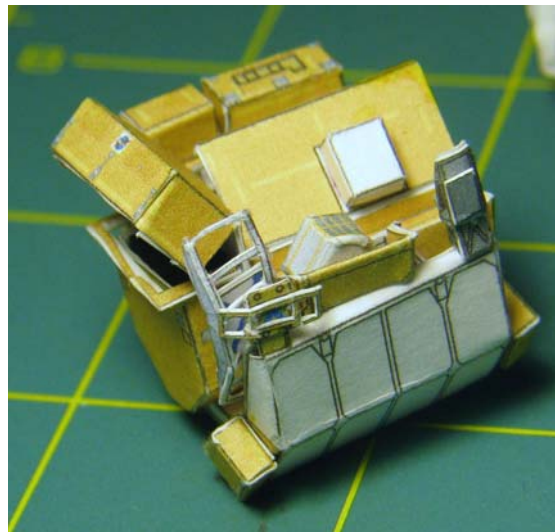
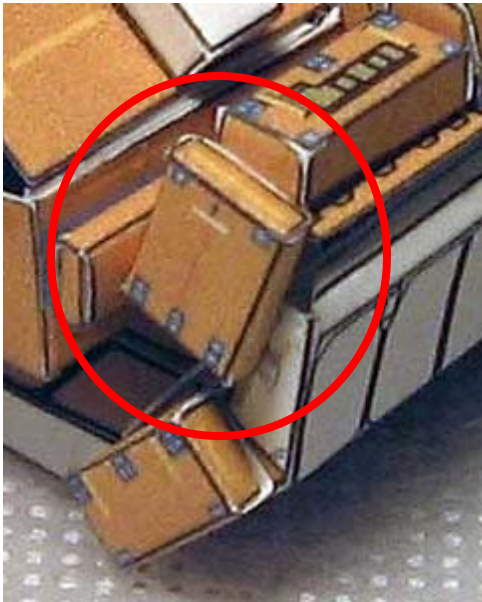
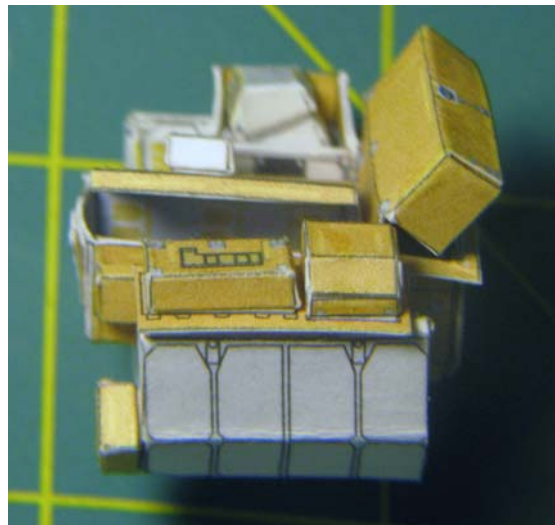
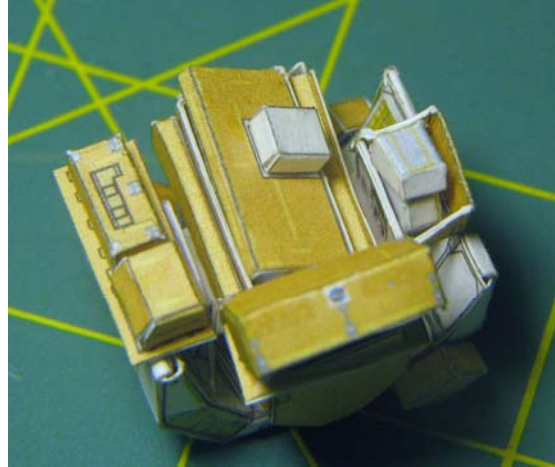
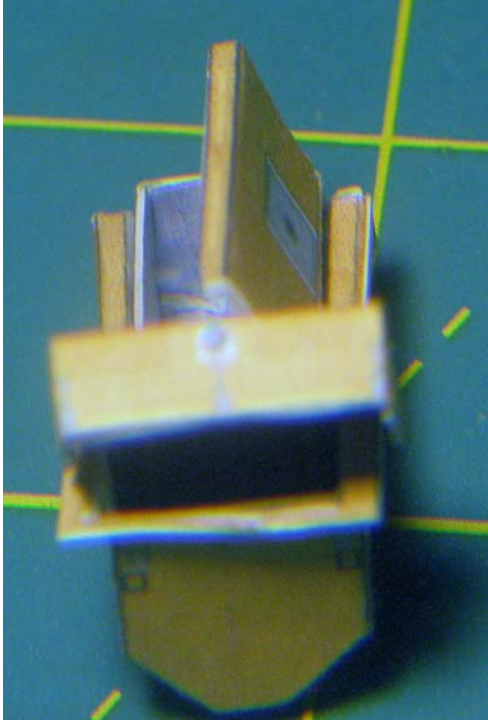
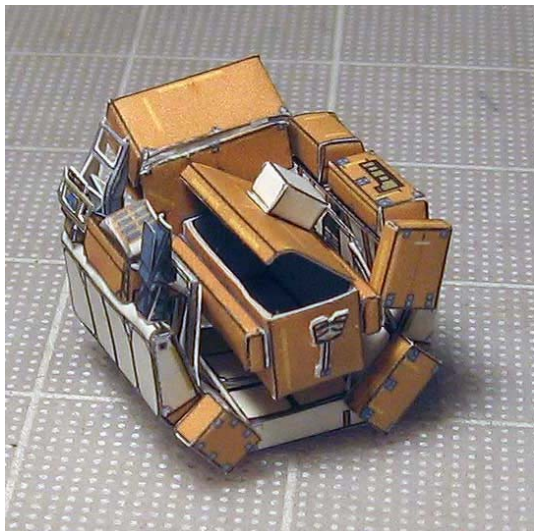


Photo shows the location for the **STIS enclosure**.

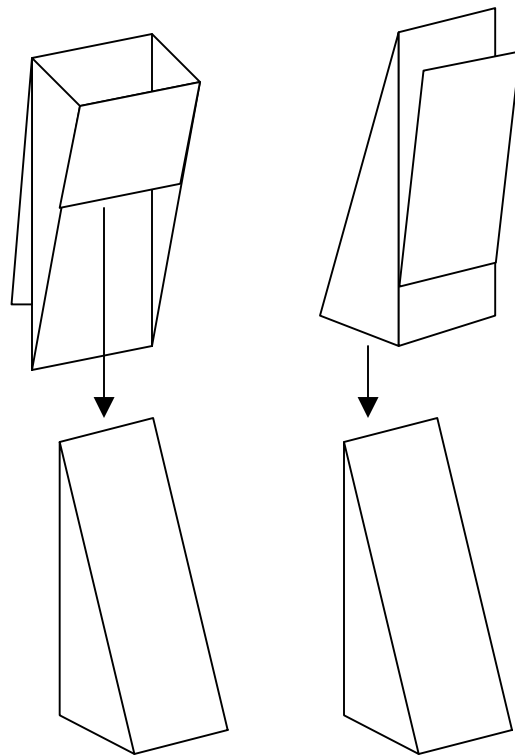
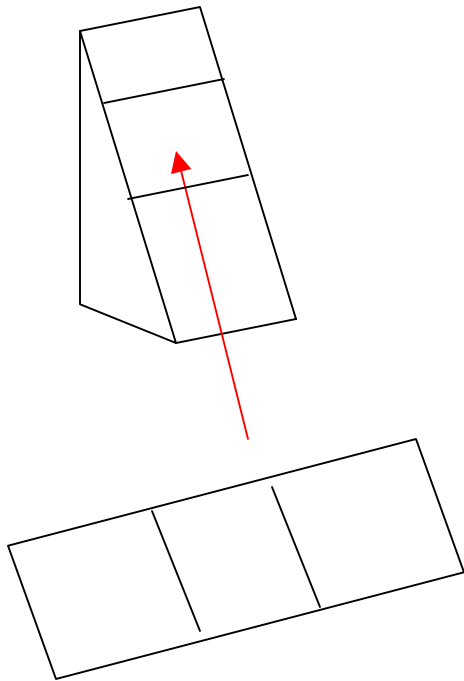




Forward Fixture



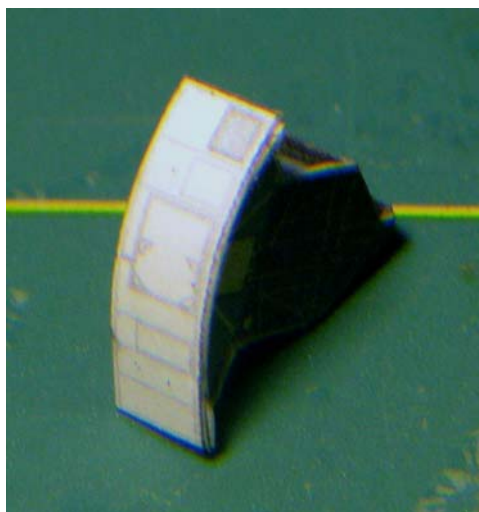
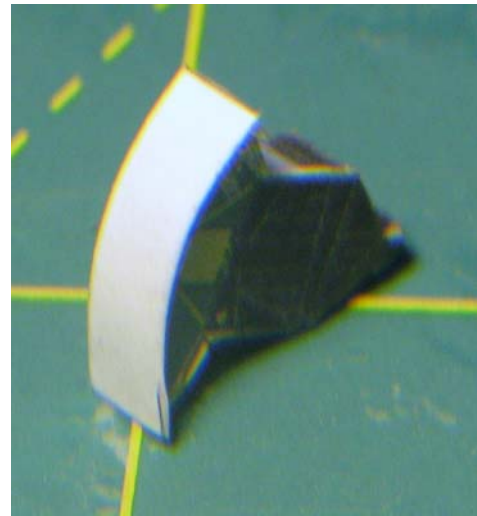
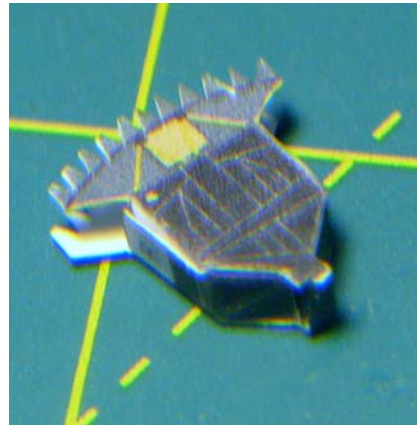
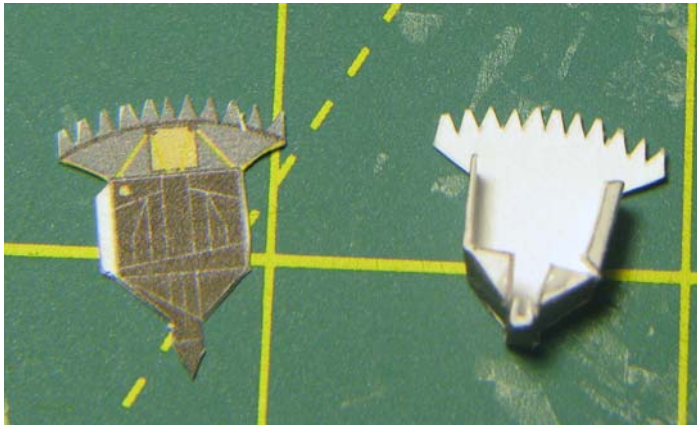
Aft Fixture



Stowed position

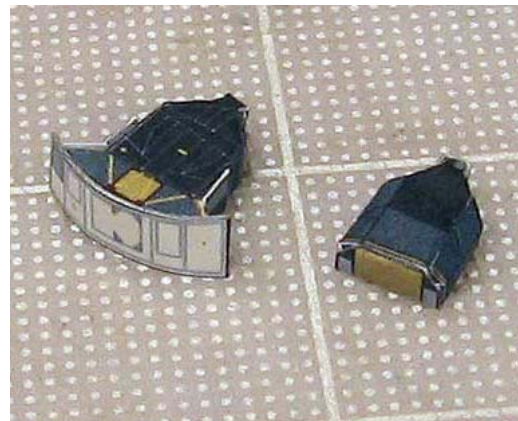
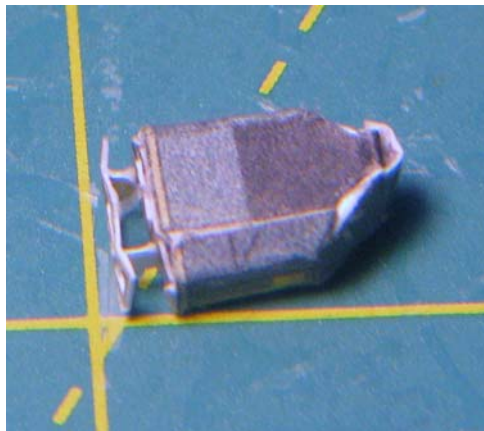
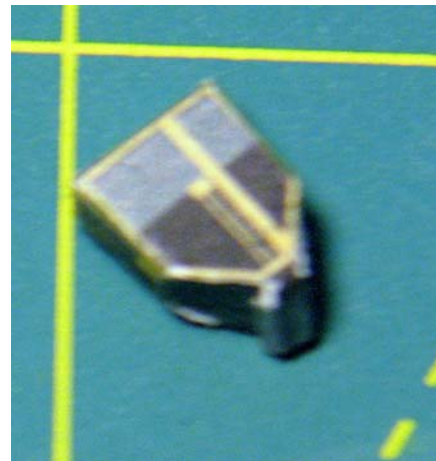
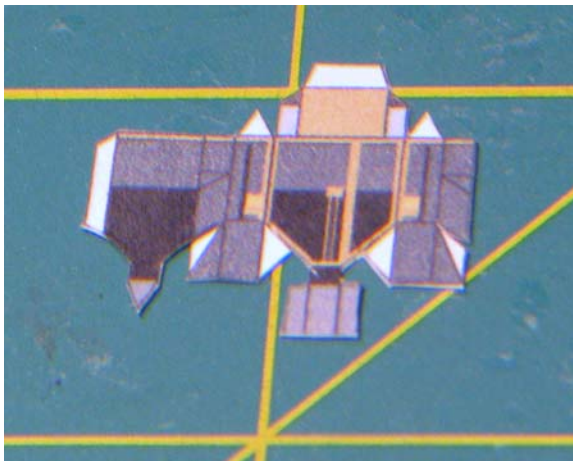
Un-stowed position

Building the WFC III (Placed inside WSIPE)

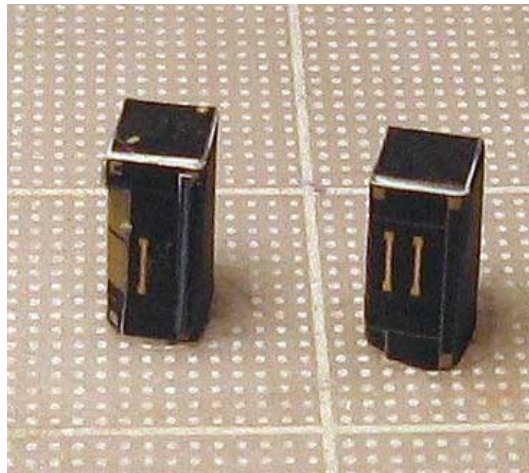
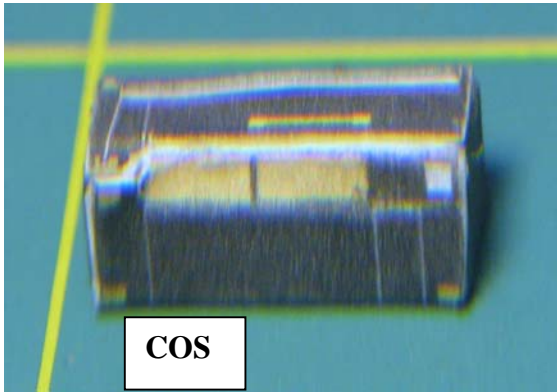
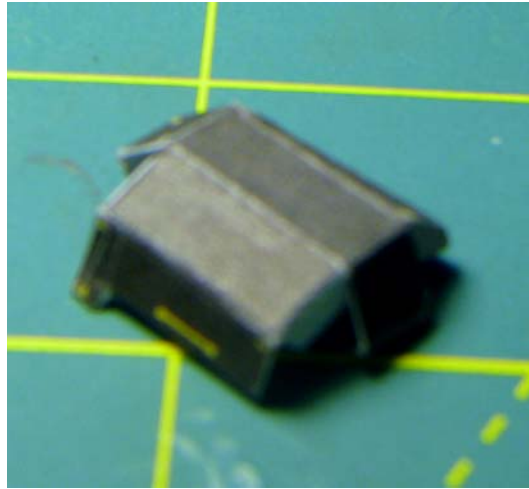
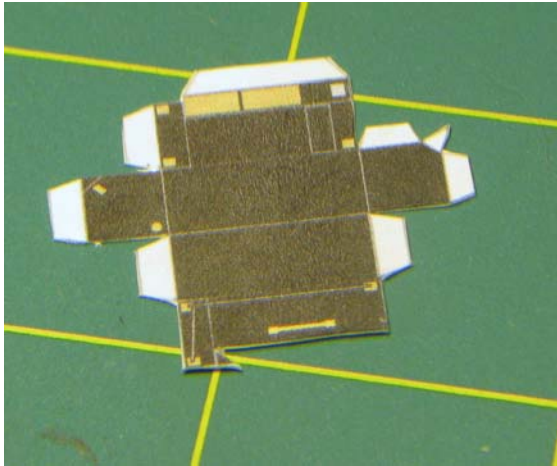




Building the Fine Guidance System (FGS) – Placed inside the FSIPE



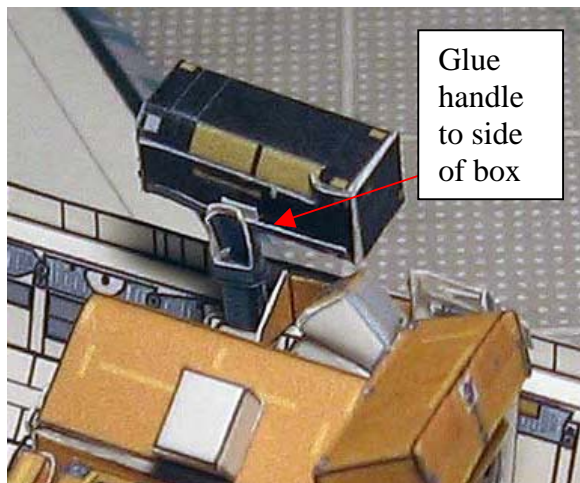
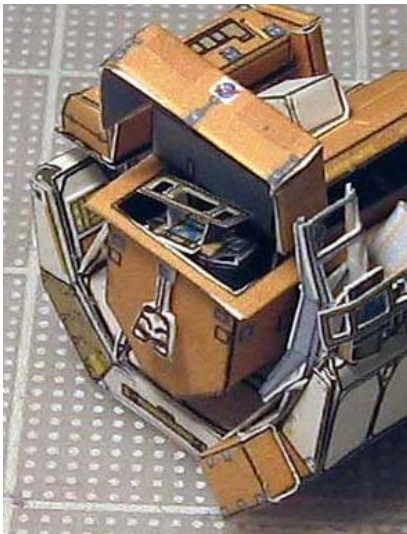
Building COS (Placed inside ASIPE box)



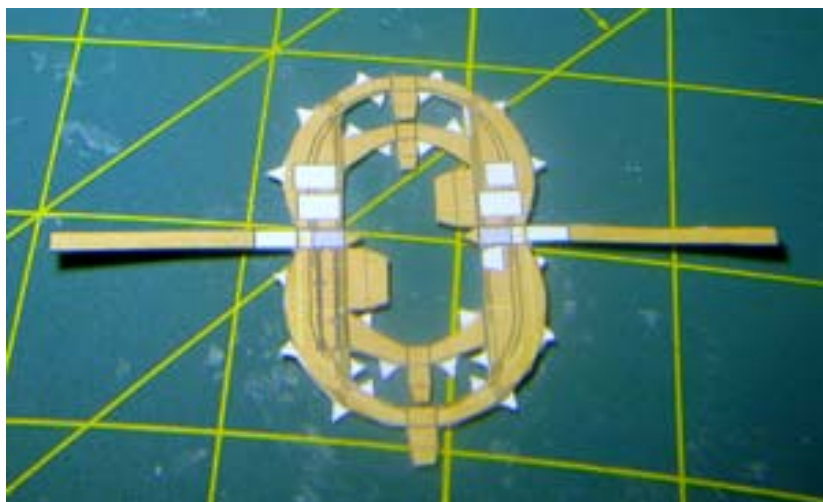
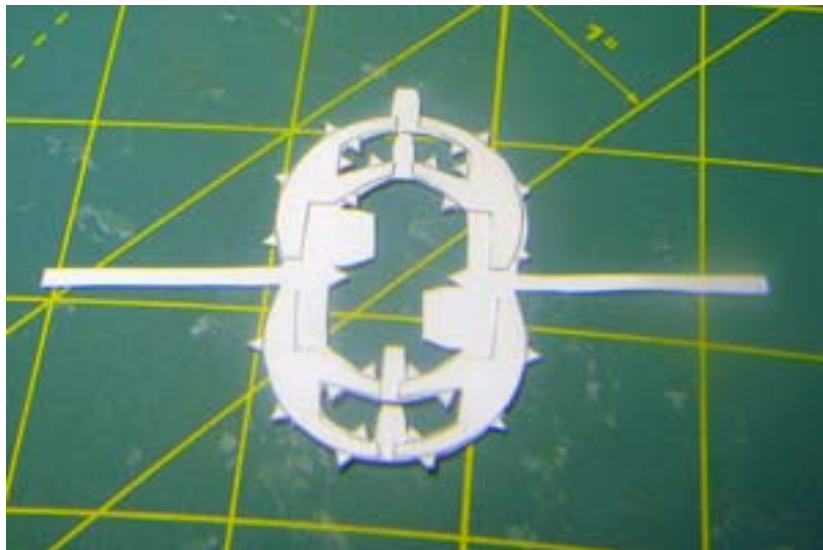
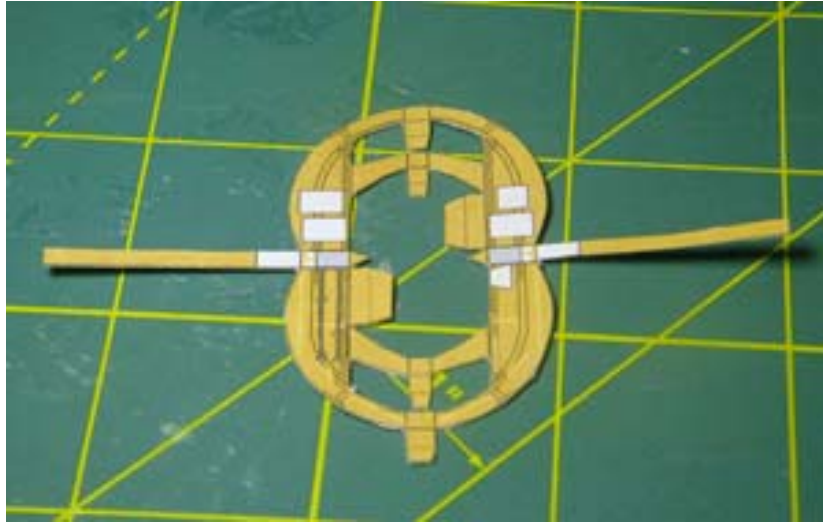
EVA configurations for diorama purposes

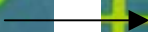
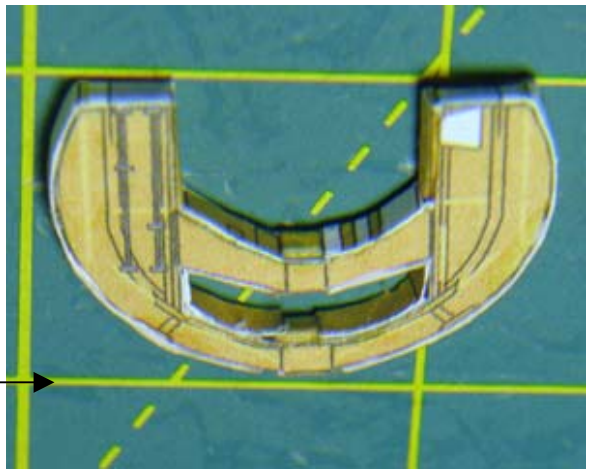
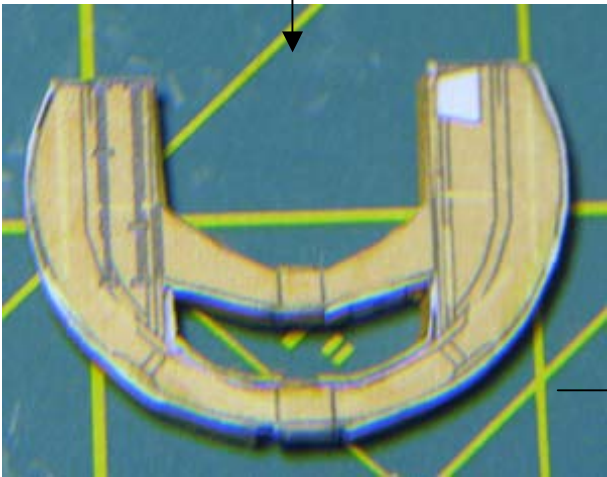
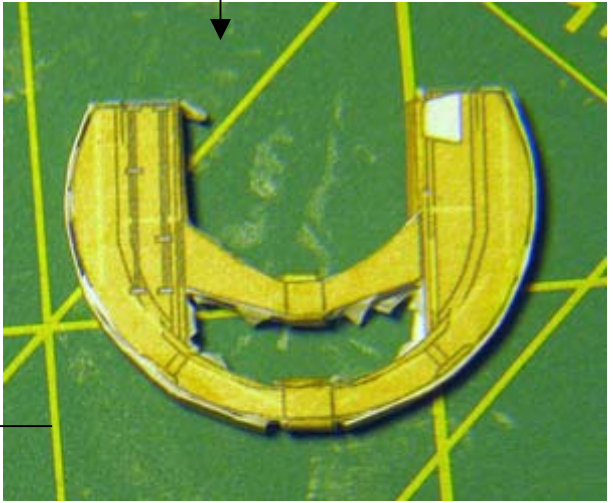
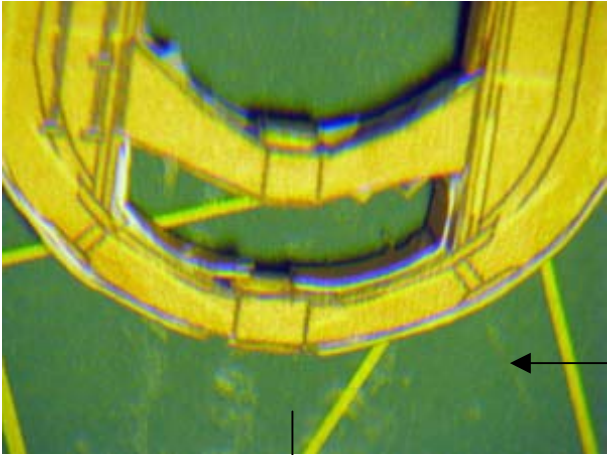
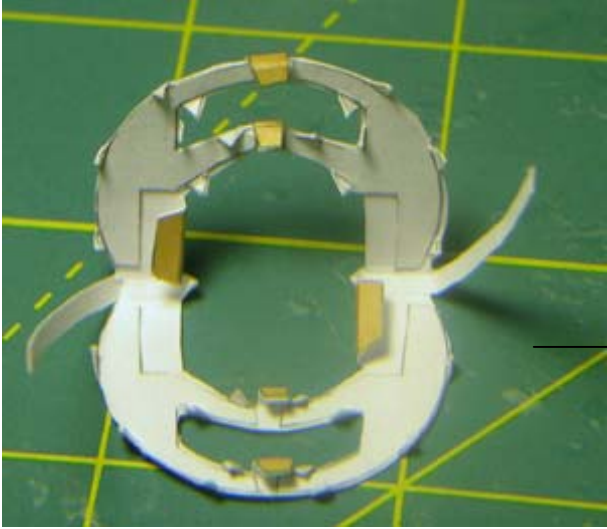


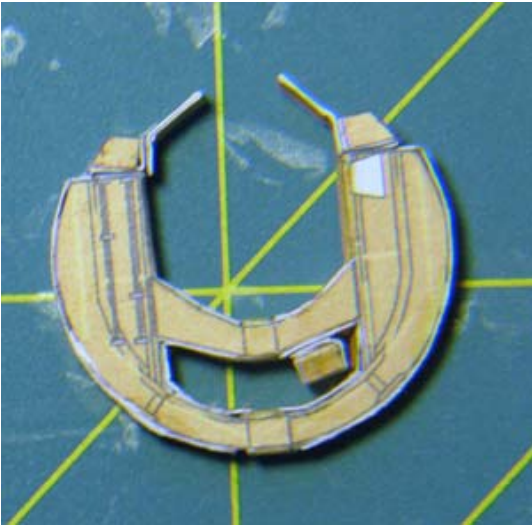
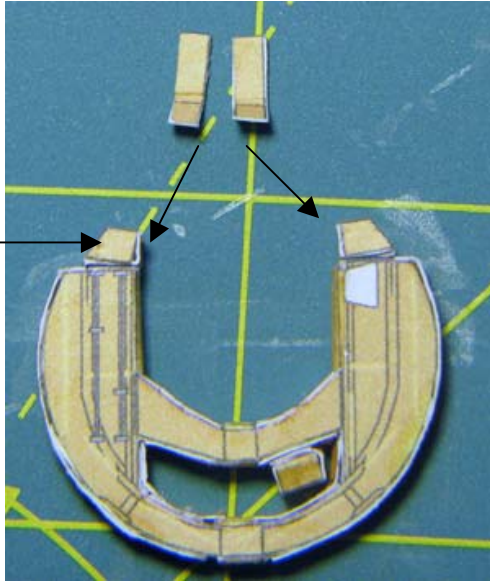
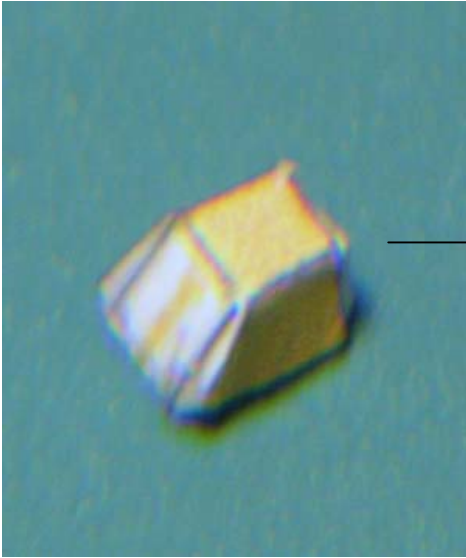
Photo shows the WFC II
glued to the handhold
structure so it can be
placed on the aft fixture.



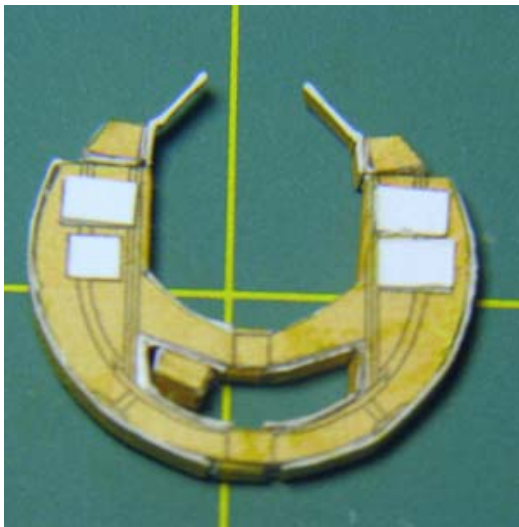
Building the FSS (Flight Support System) - Bay 11





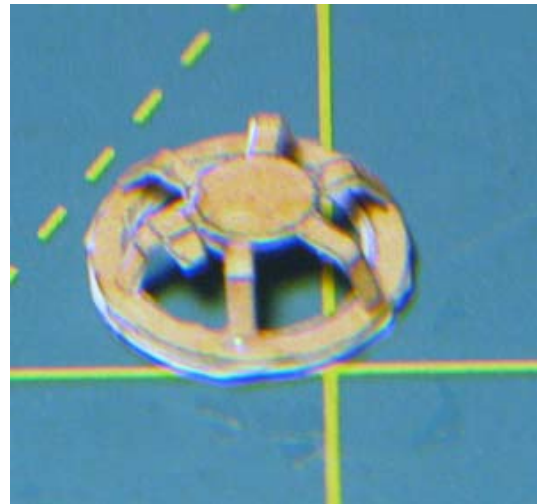
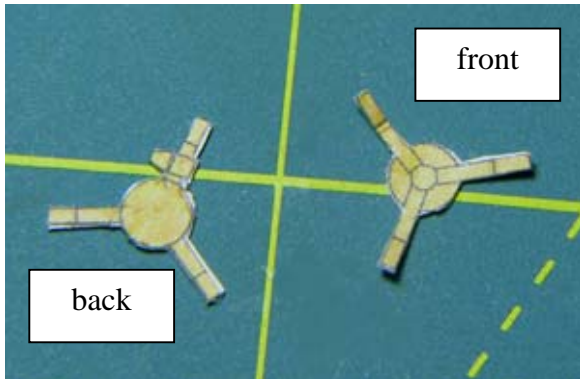


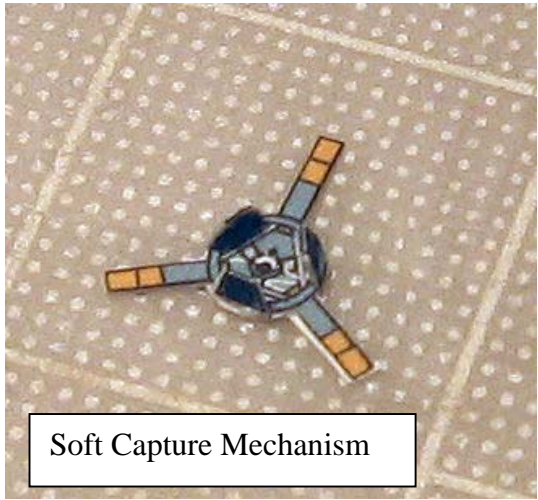
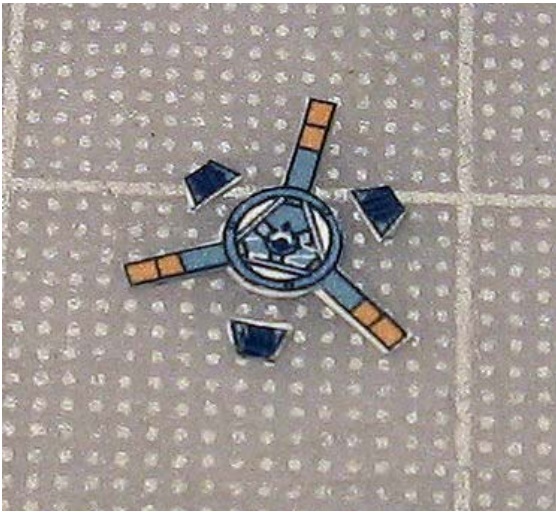
Front view



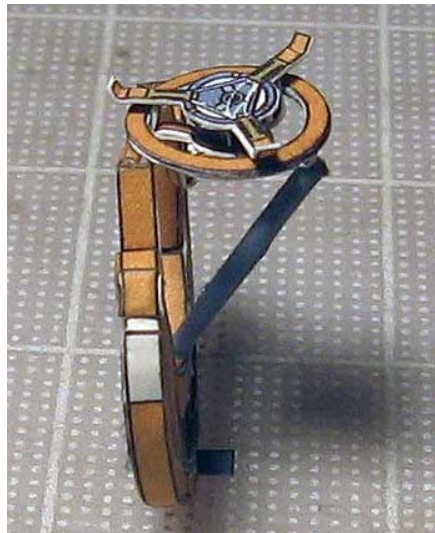
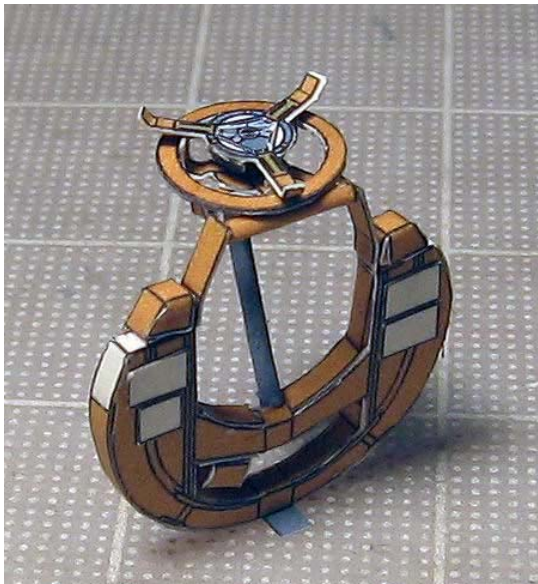
Aft view

Berthing Mechanism

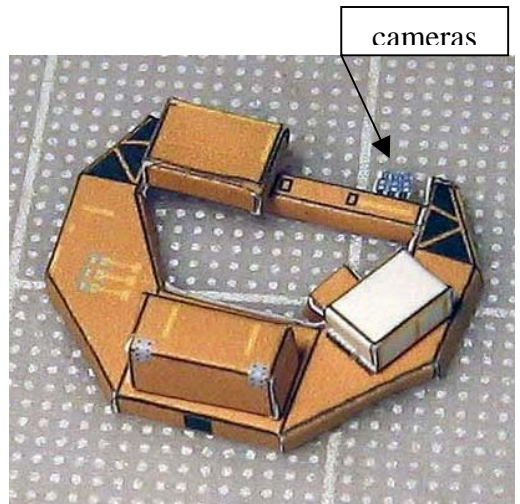
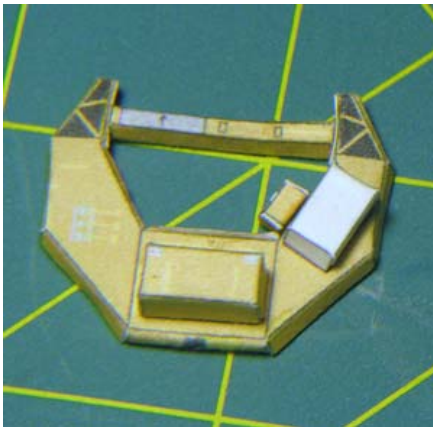
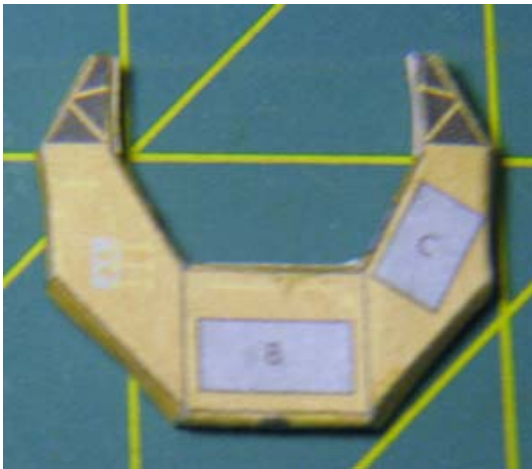
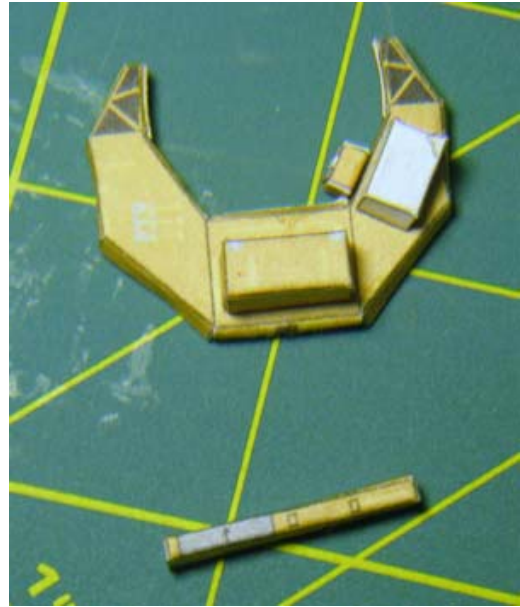
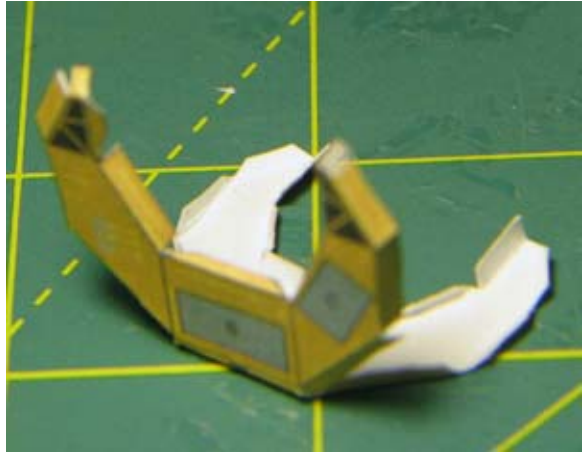
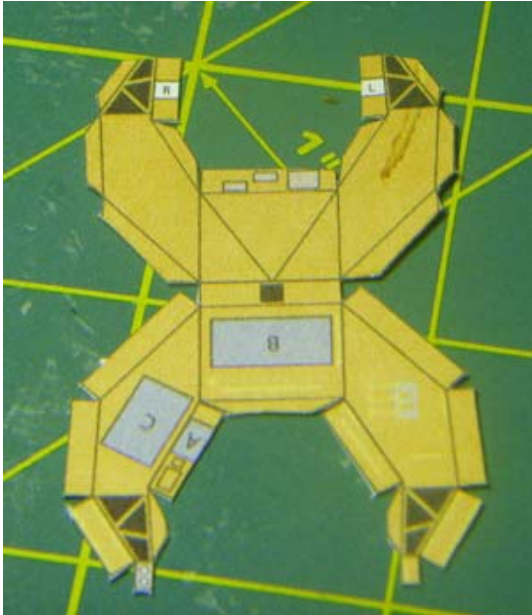




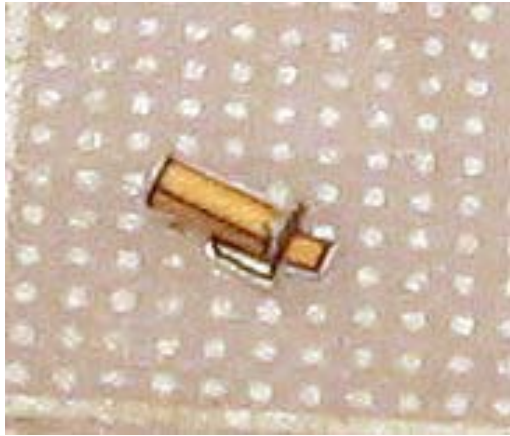
Soft Capture Mechanism



Building the MULE – Bay 12



Building the MFR (Manipulator Foot Restraint) – Bay 10 Port side



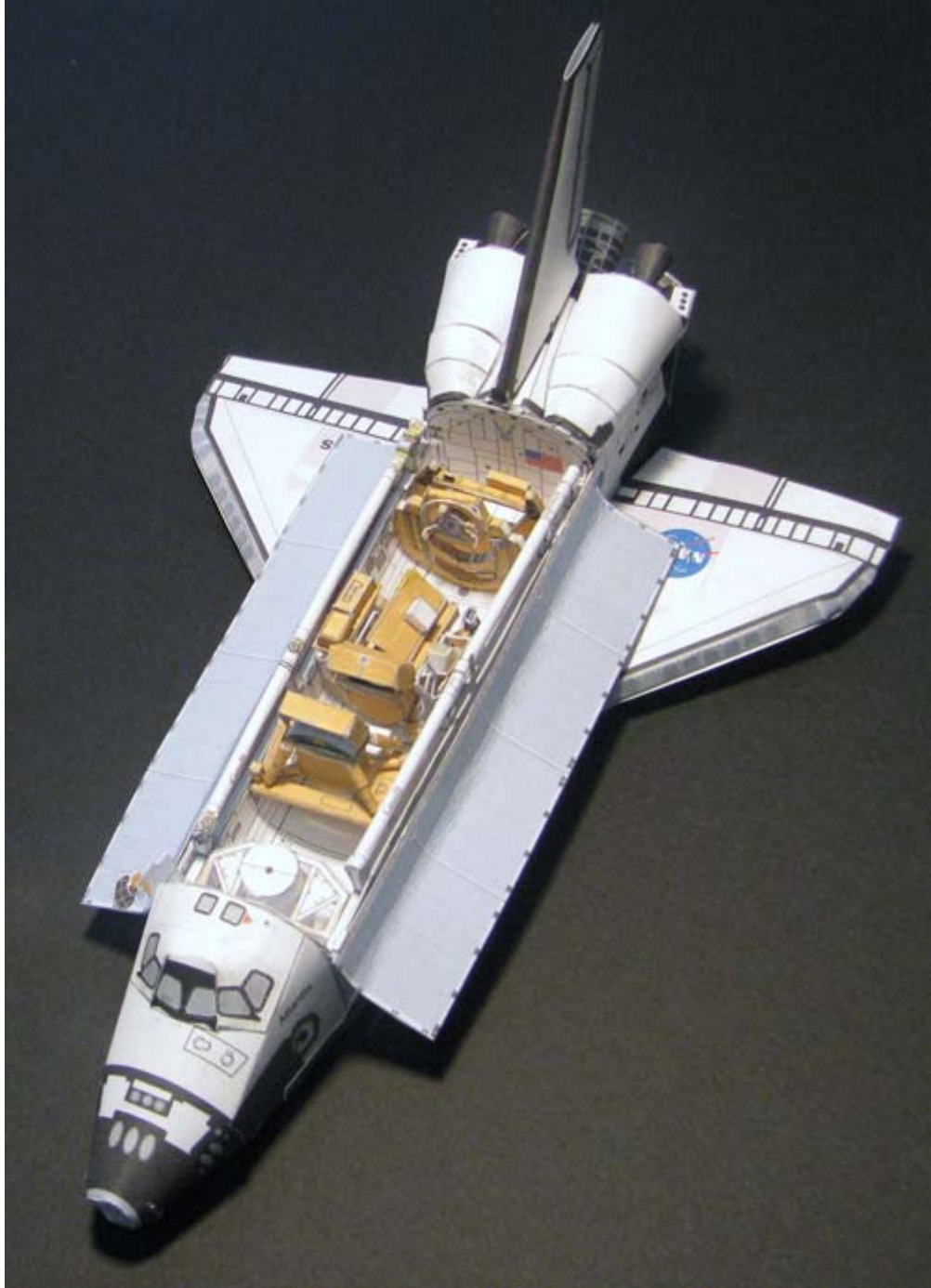
This piece is glued to the wall of the payload bay on Bay 10 Port side. Arrow points which side is glued to the wall.

KU-band Antenna

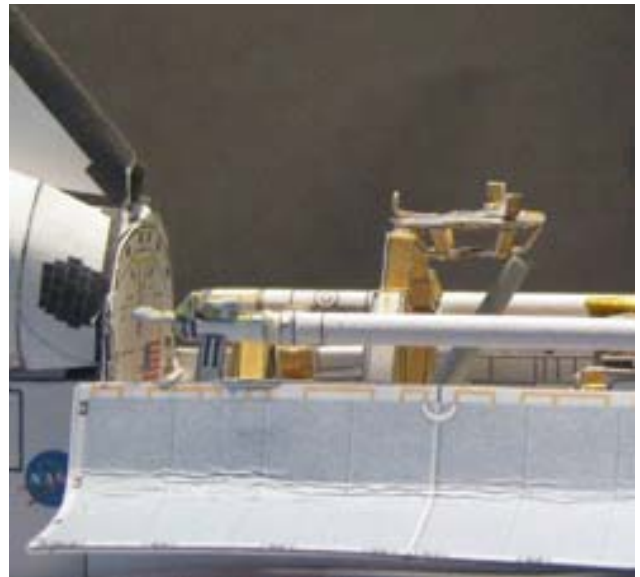
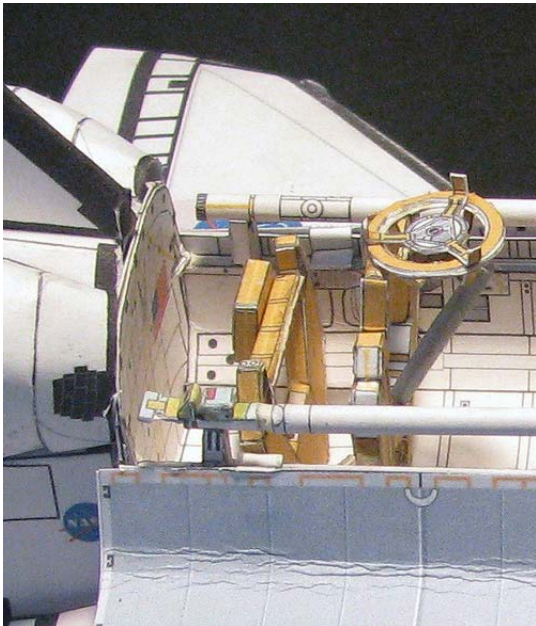
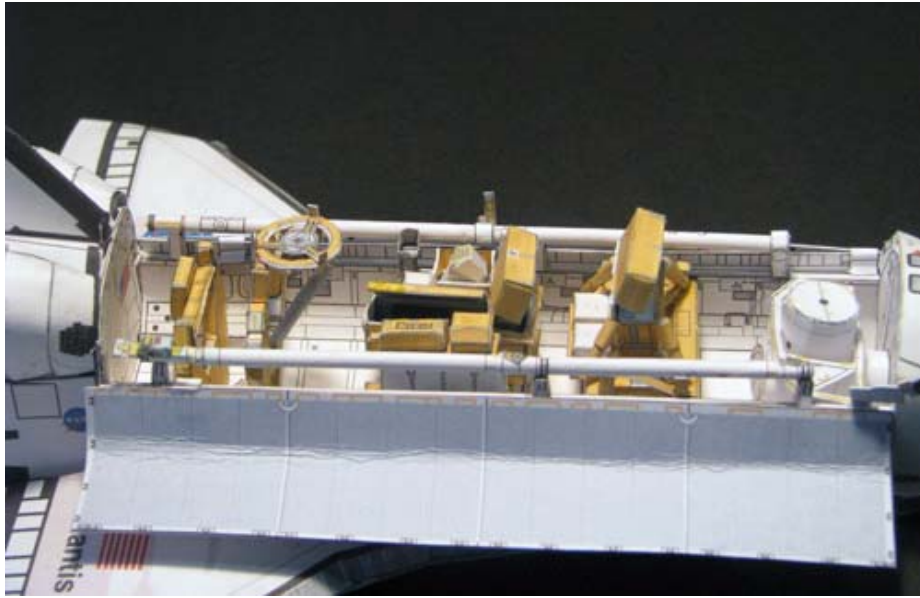


Note location of KU-band antenna that is glued on the tab from the right payload bay door.

REFERENCE PHOTOS







Enjoy!

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