

LLO MC3 Cabling Guide

4/4/2012

References – Parts List

Cabling for testing:

Description	Drawing Number	Quantity
Quadrapuss Cable	D1000234 – 60”	2
Quadrapuss Cable	D1000234 – 66”	1
Quadrapuss Cable	D1000234 – any	1
PEEK Cable Ties	111155	as needed




Cabling in chamber:

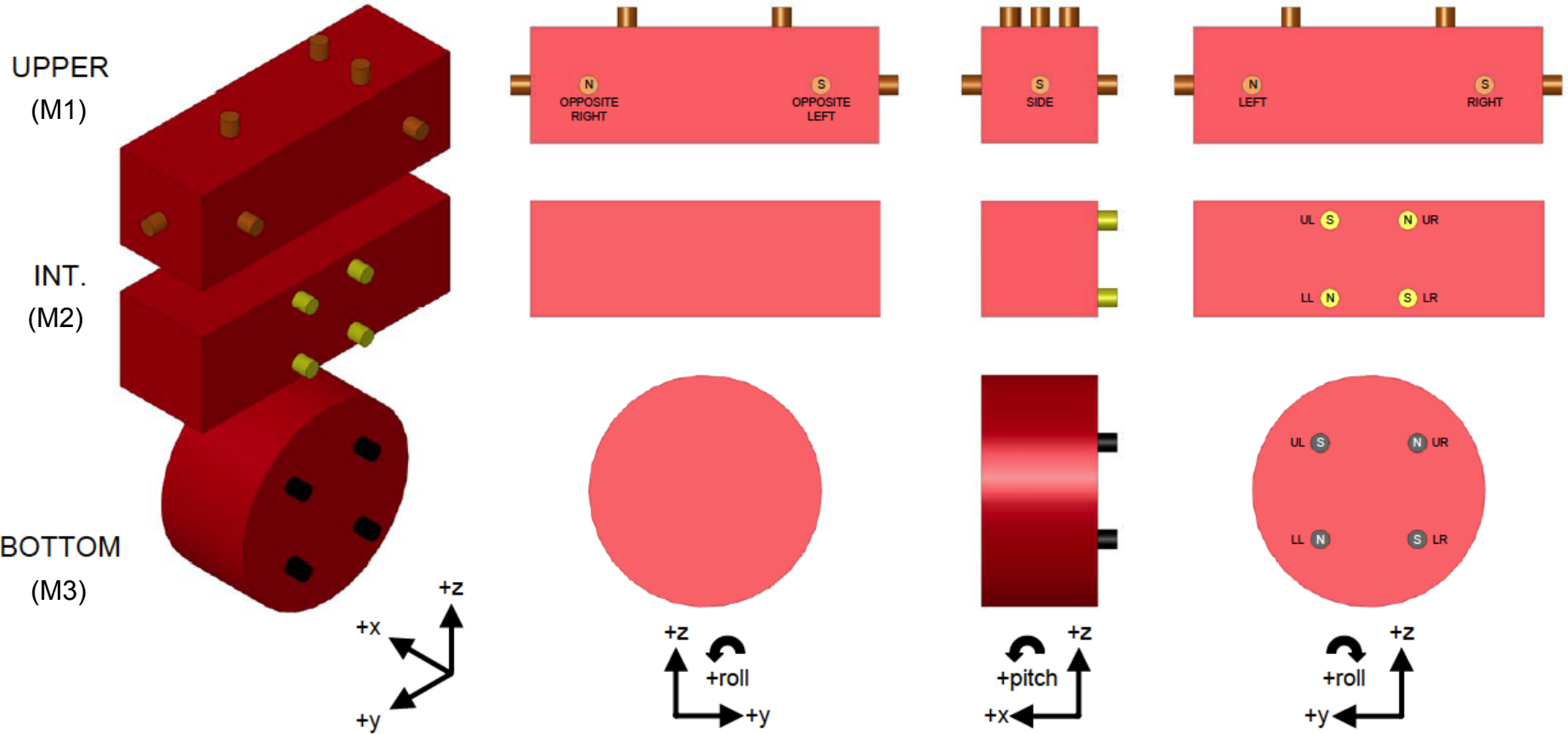
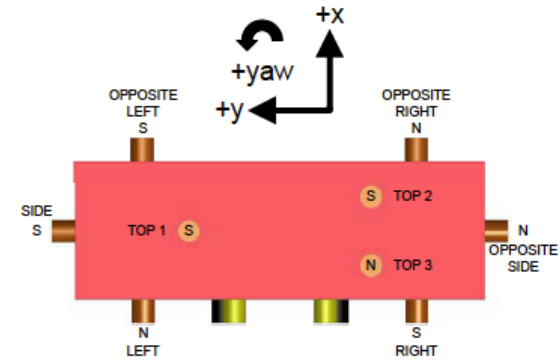
Description	Drawing Number	Quantity
Quadrapuss Cable (from MC1)	D1000234 – 78”	1
UHV Compatible Cable Clamp Assy	D0902462	as needed
Ag-Plated SHCS, 1/4–20 x 1.25	?	as needed

References – E1100109-v1

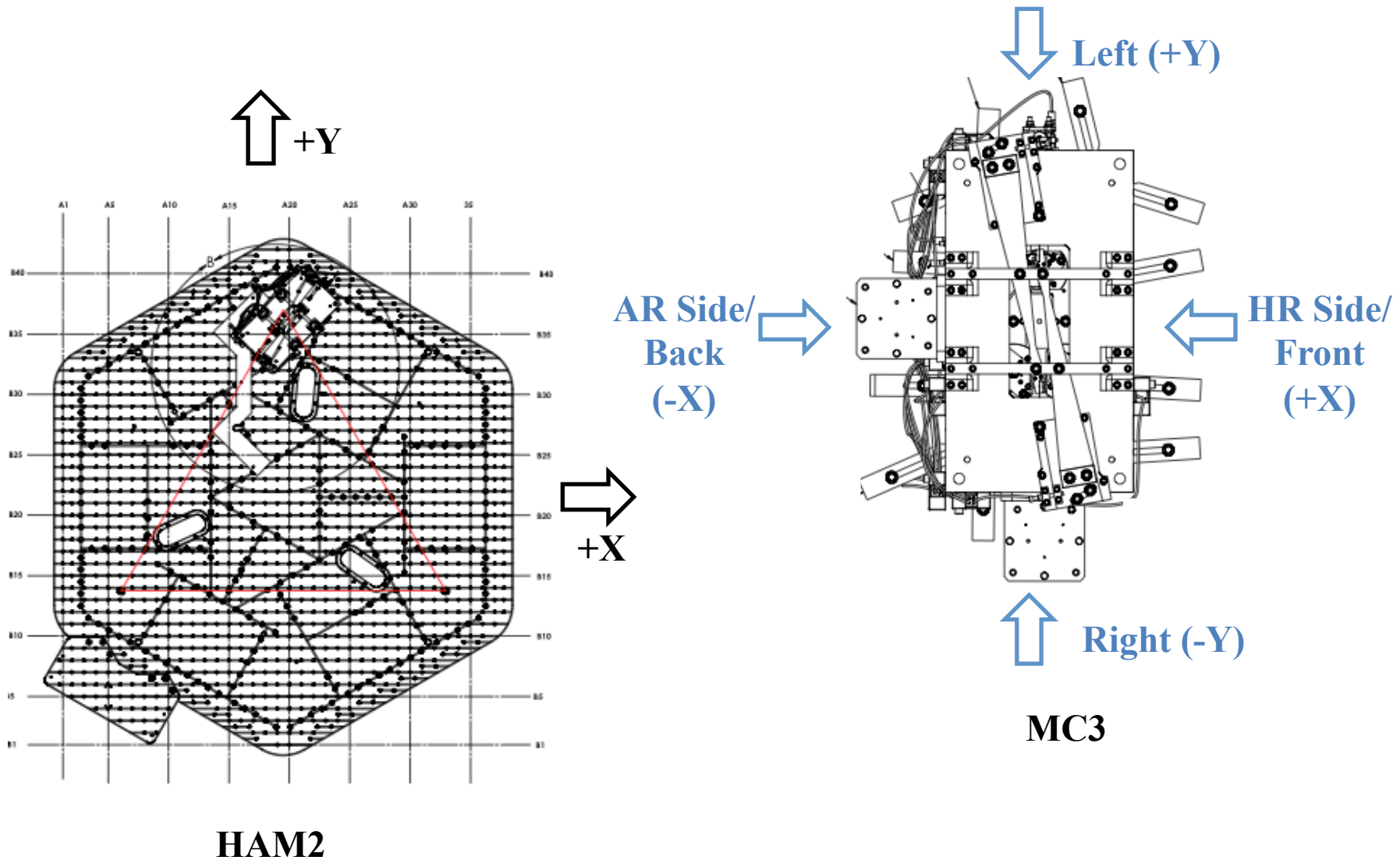
HAM SUSPENSIONS

CONTROLS ARRANGEMENT

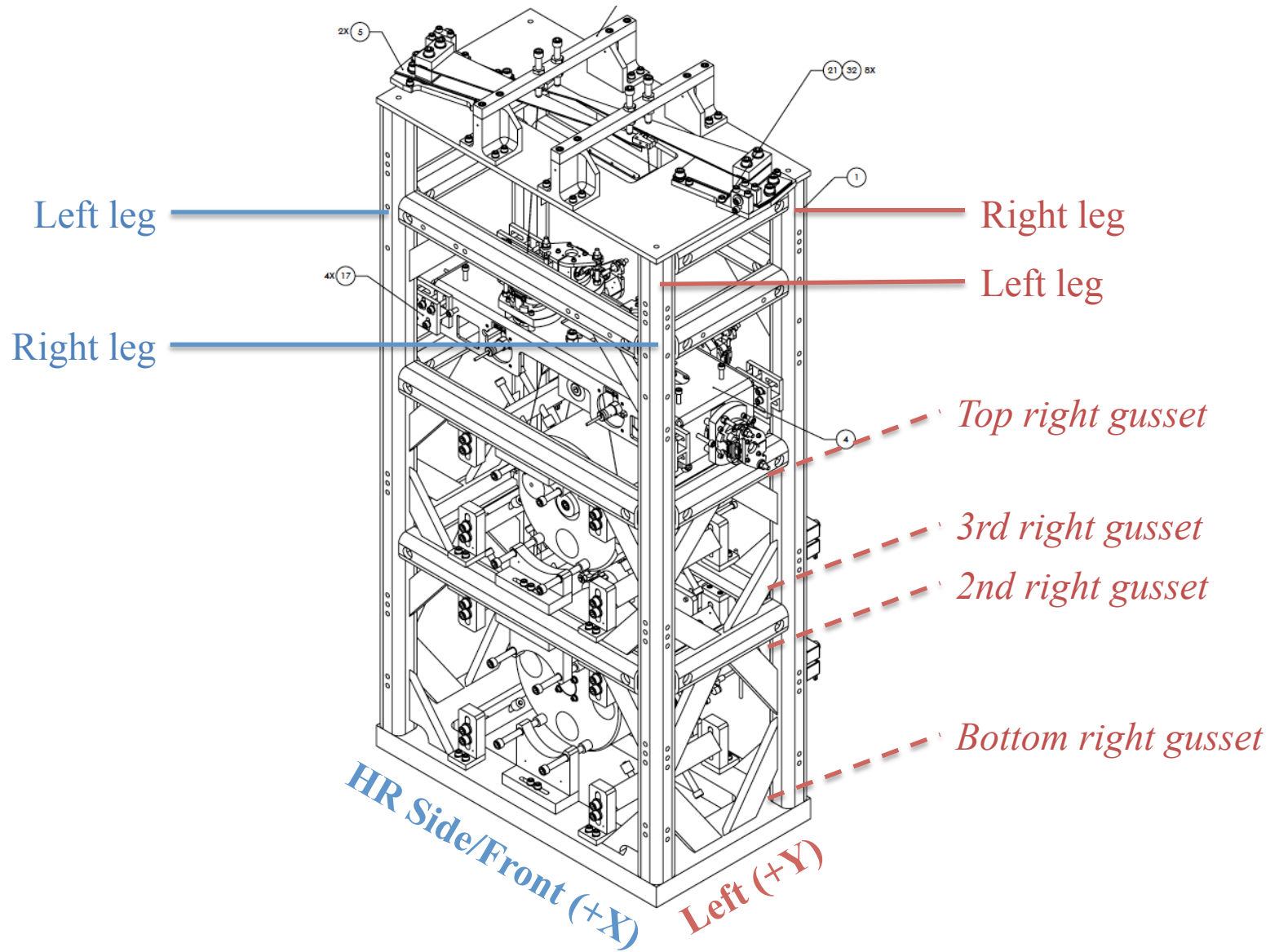
MAGNET KEY		
HLTS	HSTS	OMC SUS
 NdFeB (NEO 35), 10mm X 10mm - BOSEM	NdFeB (NEO 35), 10mm X 5mm - BOSEM	NdFeB (NEO 35), 10mm X 10mm - BOSEM
 SmCo, 0.075" X 0.125" - AOSEM	SmCo, 0.075" X 0.125" - AOSEM	NOT APPLICABLE
 SmCo, 2mm X 0.5mm - AOSEM	SmCo, 2mm X 0.5mm - AOSEM	NOT APPLICABLE



References – Naming Conventions

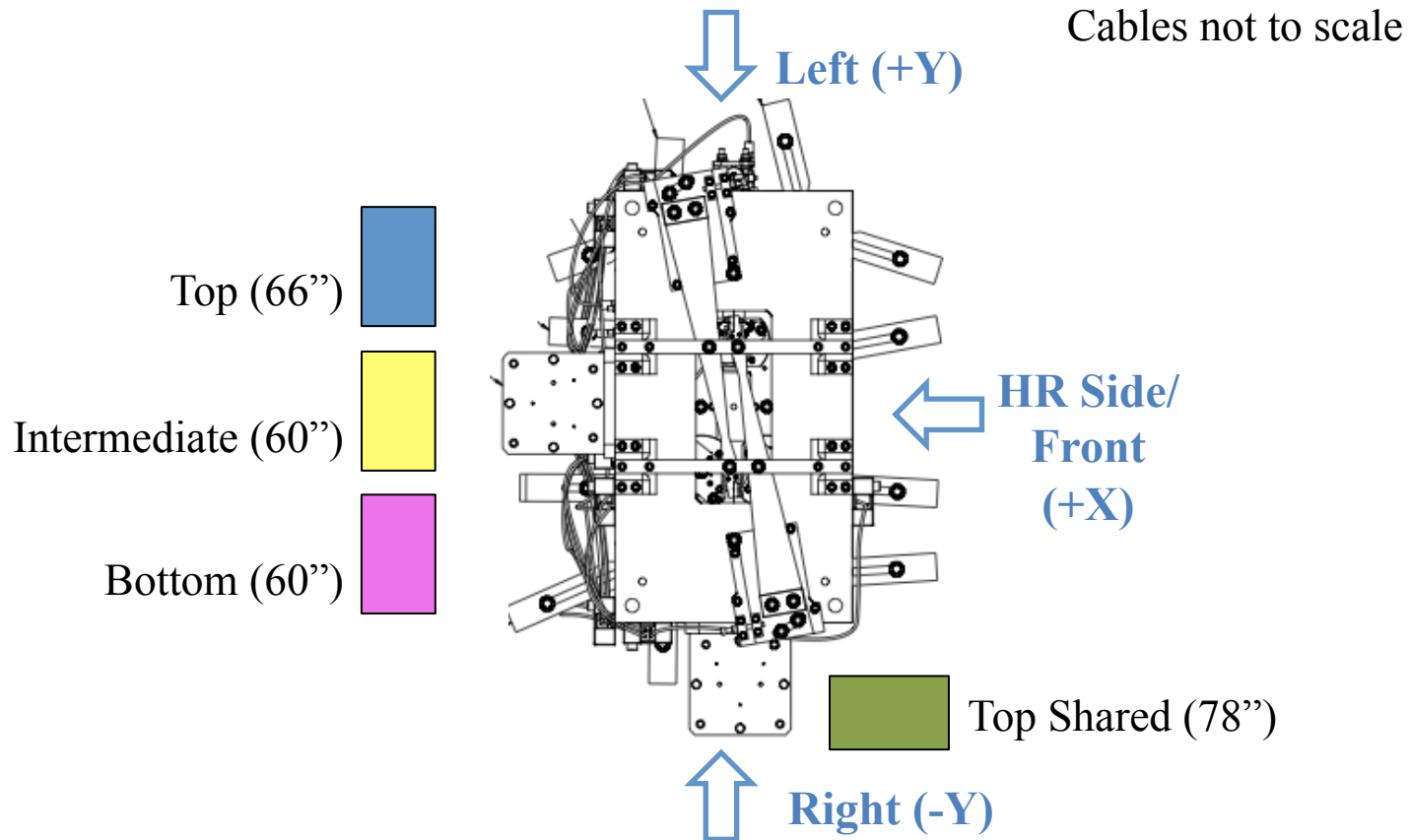


References – Naming Conventions

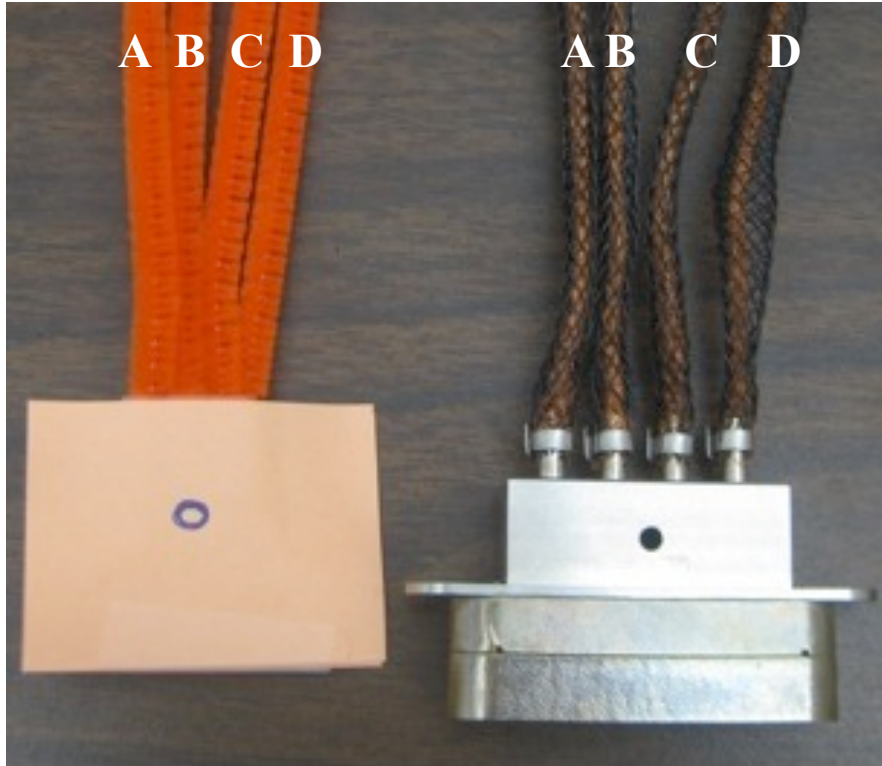


References – Cable Placement

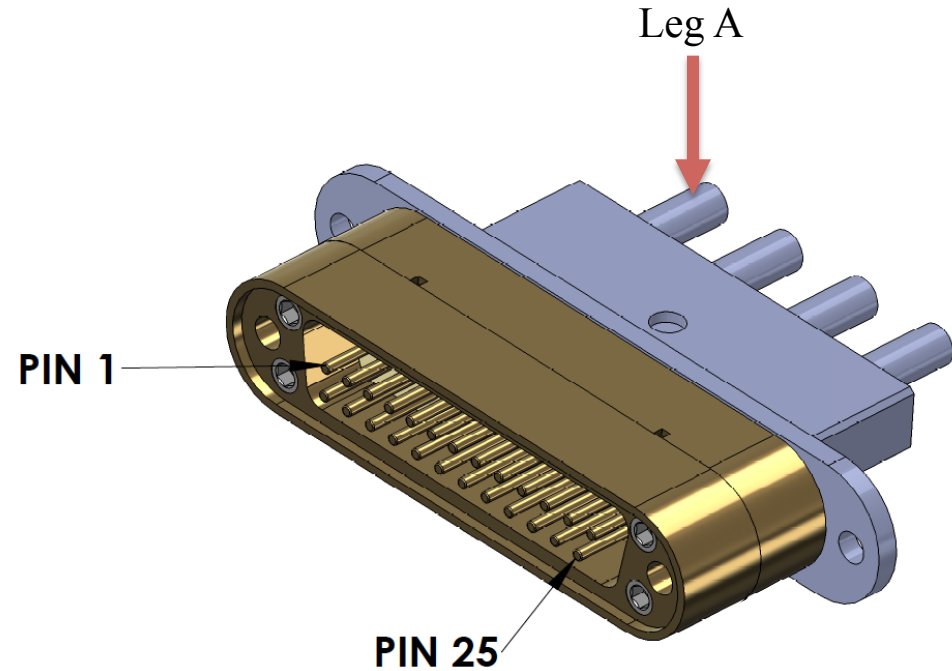
- Recommendation: clamp DB25 connector to the table before cabling in positions shown.



References – Quadrapuss Orientation



Model and actual quadrapuss



D1000234 drawing

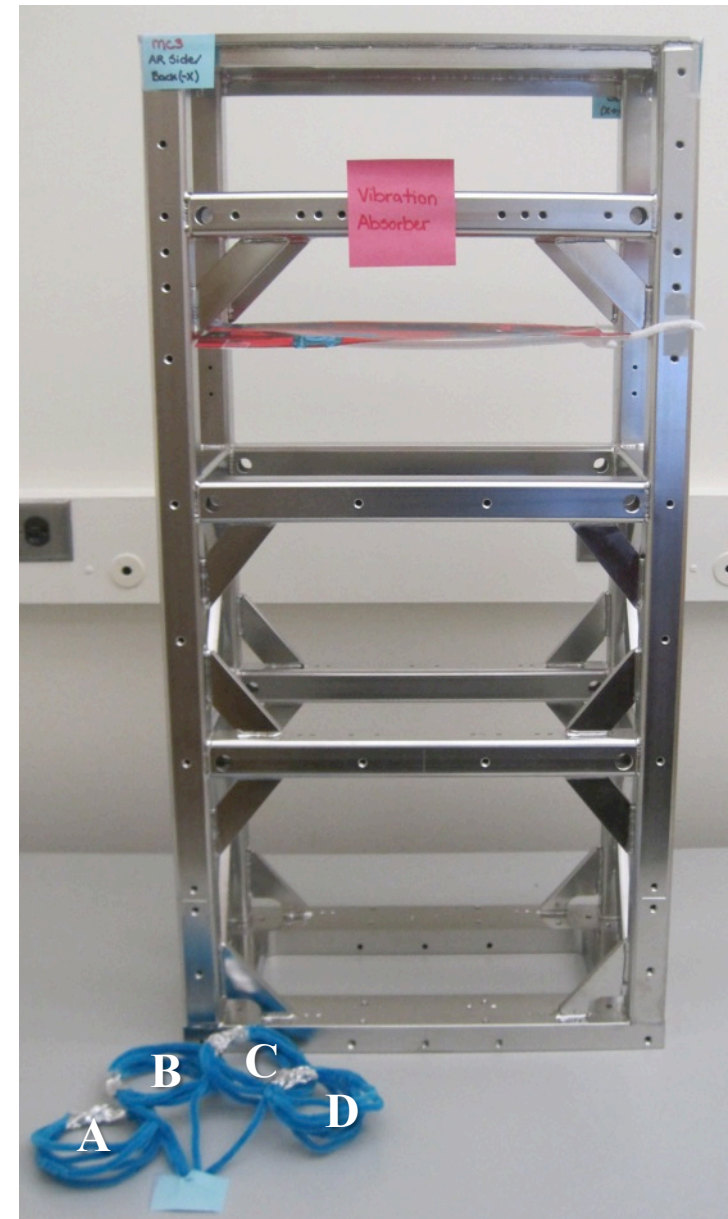
Cabling for Testing

Top Cable

1. Lay out the top quadrapuss (D1000234 66”).

Newer quadrapusses will have their legs individually coiled before wrap, bag, and tag.

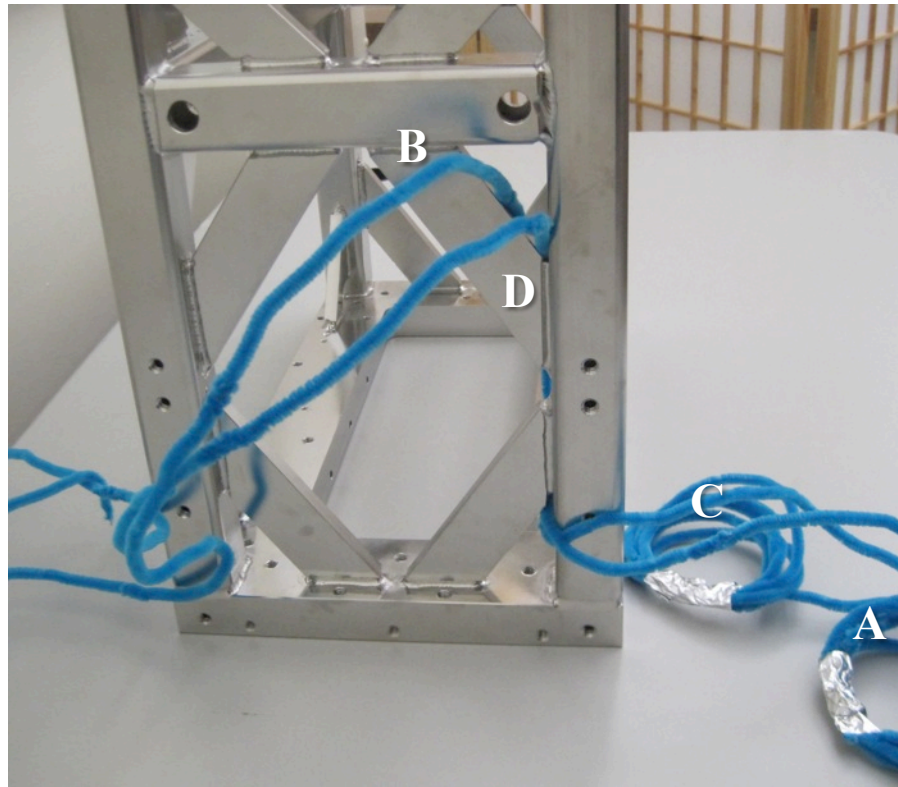
Blue = Top



AR Side/Back (-X)

Top Cable

2. On the **Left Side (+Y)**, lace legs B and D into the bottom right gusset, and out of the 2nd gusset.



Left (+Y)

Top Cable

3. Lace B into the top right gusset on the **Left (+Y)**, and connect to the Left BOSEM. Gently pull taut by drawing excess length back toward the DB25 connector.



Iso Left (+Y) – Back (-X)

Top Cable

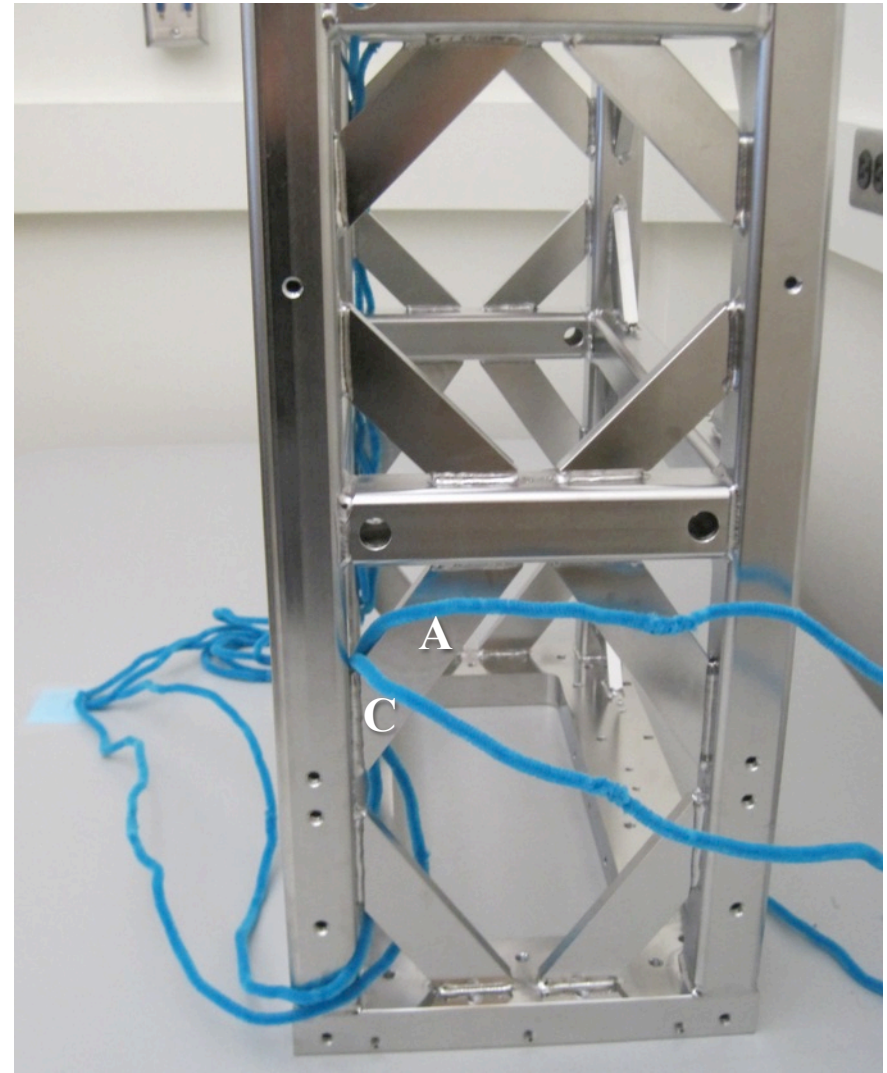
4. Lace D into the SUS near M2, and out of the top right gusset.
5. Wrap D over the intermediate tube, and connect to the Side BOSEM. Pull taut.



Left (+Y)

Top Cable

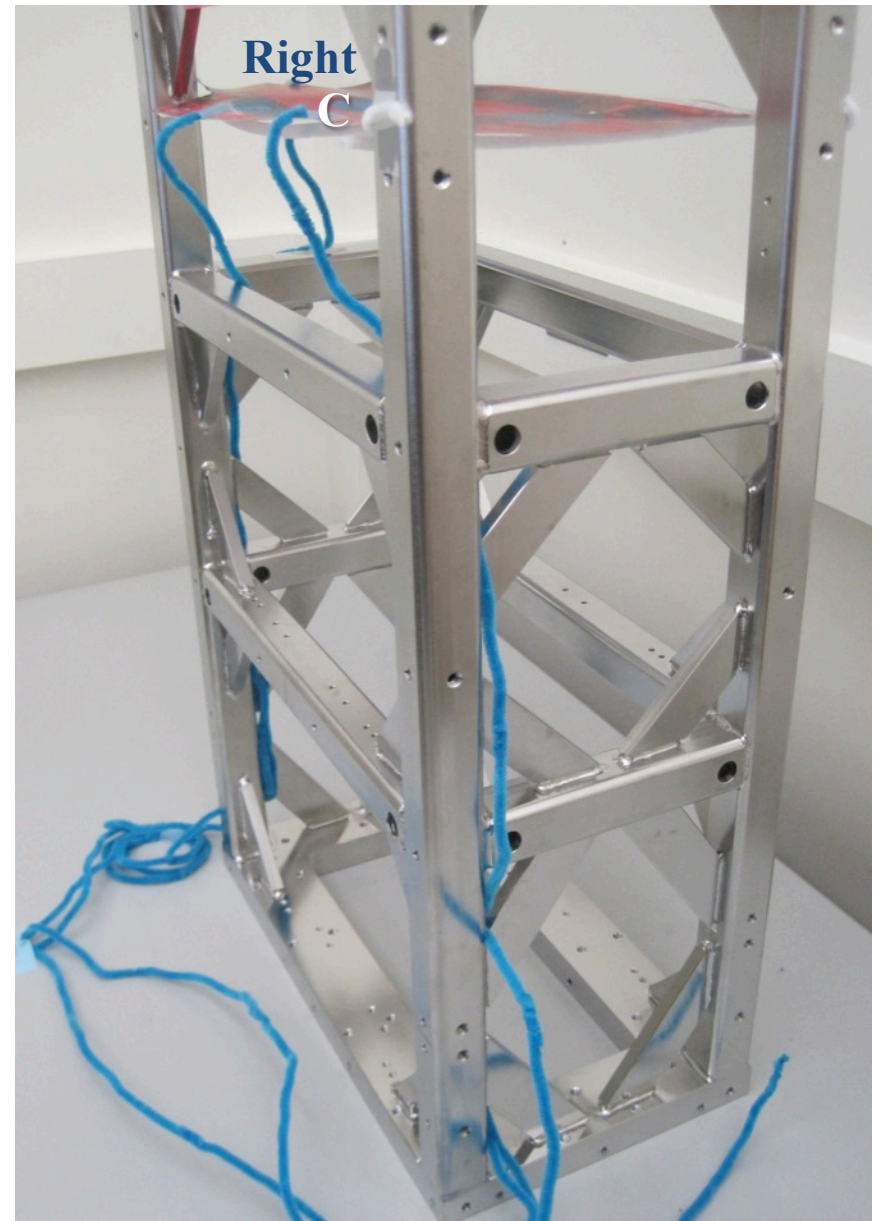
6. On the **Right (-Y)**, lace A and C into the bottom left gusset, and out of the 2nd left gusset.



Right (-Y)

Top Cable

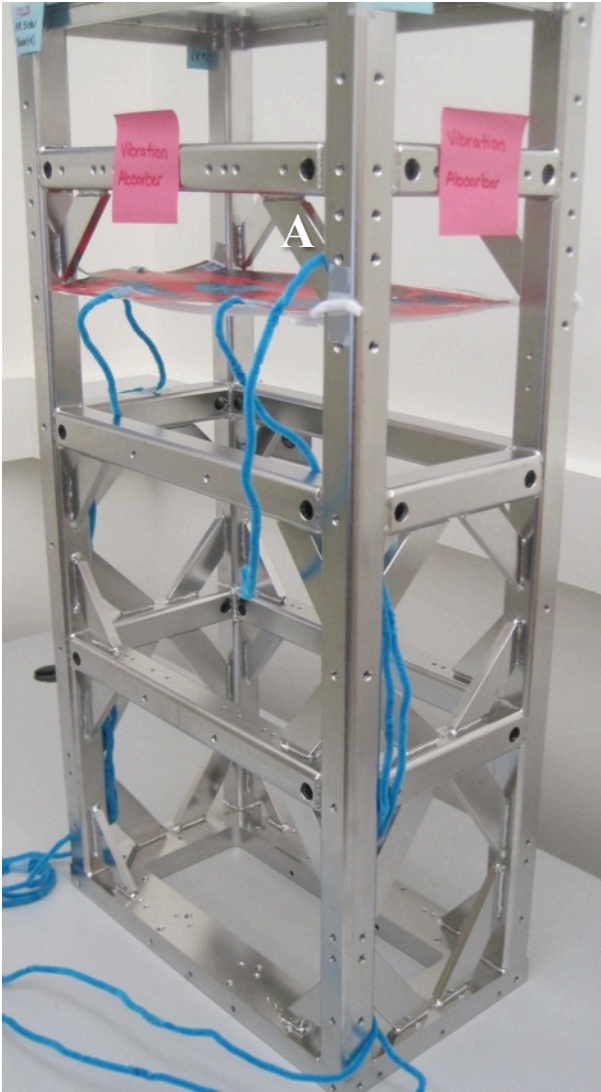
7. On the **Right (-Y)**, lace C into the top left gusset, and connect to the Right BOSEM. Pull taut.



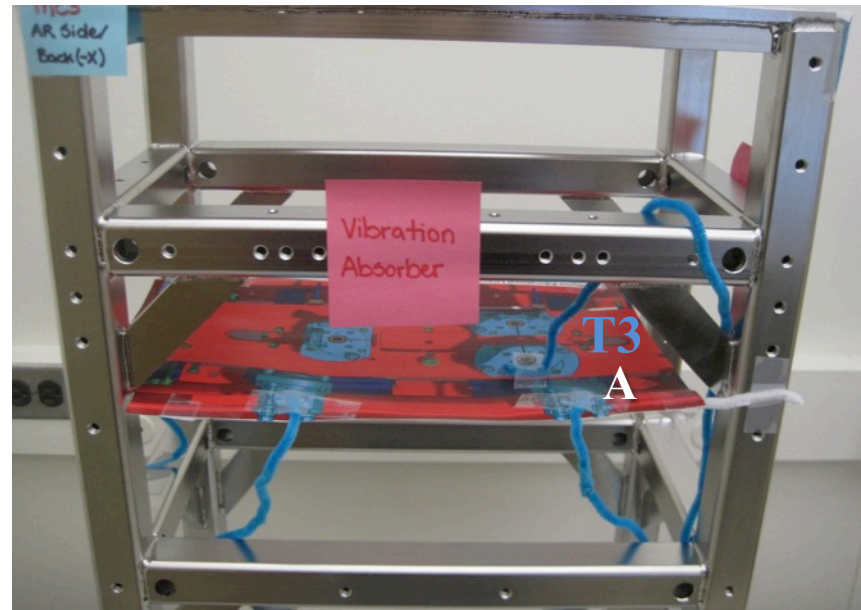
Iso Back (-X) – Right (-Y)

Top Cable

8. Lace A into the top left gusset on the **Right (-Y)**, and out of the **Back (-X)** using the top right gusset.
9. Wrap A over the top tube, and connect to T3 BOSEM. Pull taut.



Iso Back (-X) – Right (-Y)

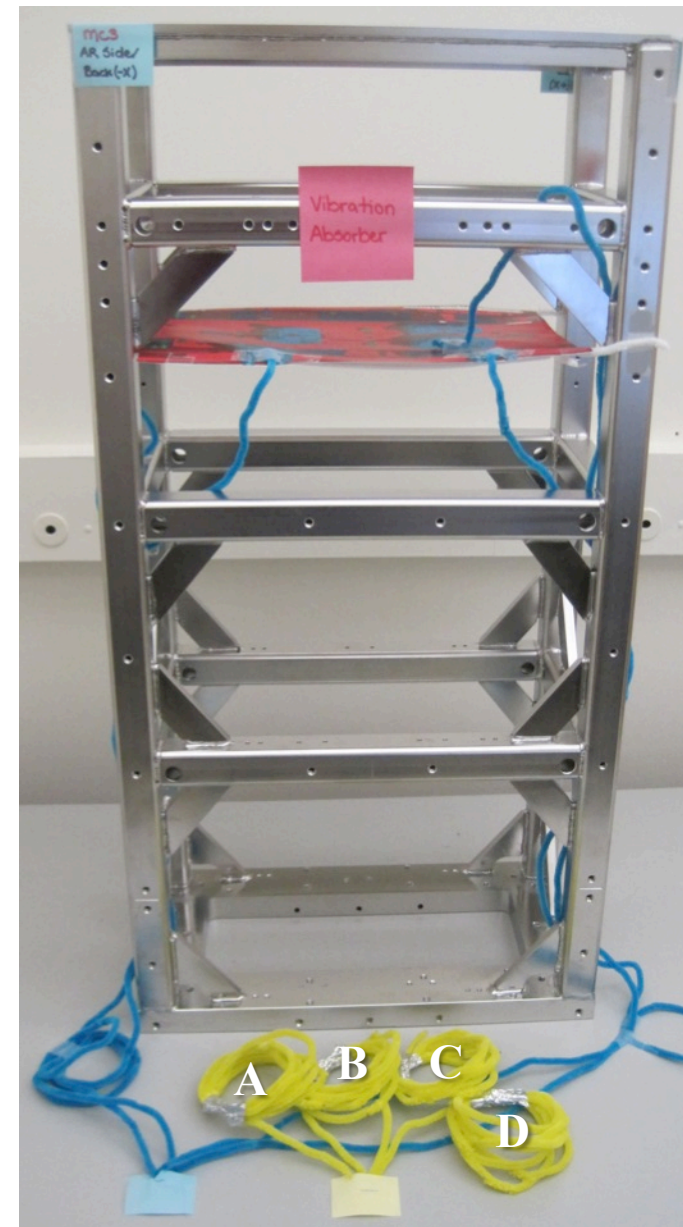


AR Side/Back (-X)

Intermediate Cable

10. Lay out the intermediate quadrapuss (D1000234 60”).

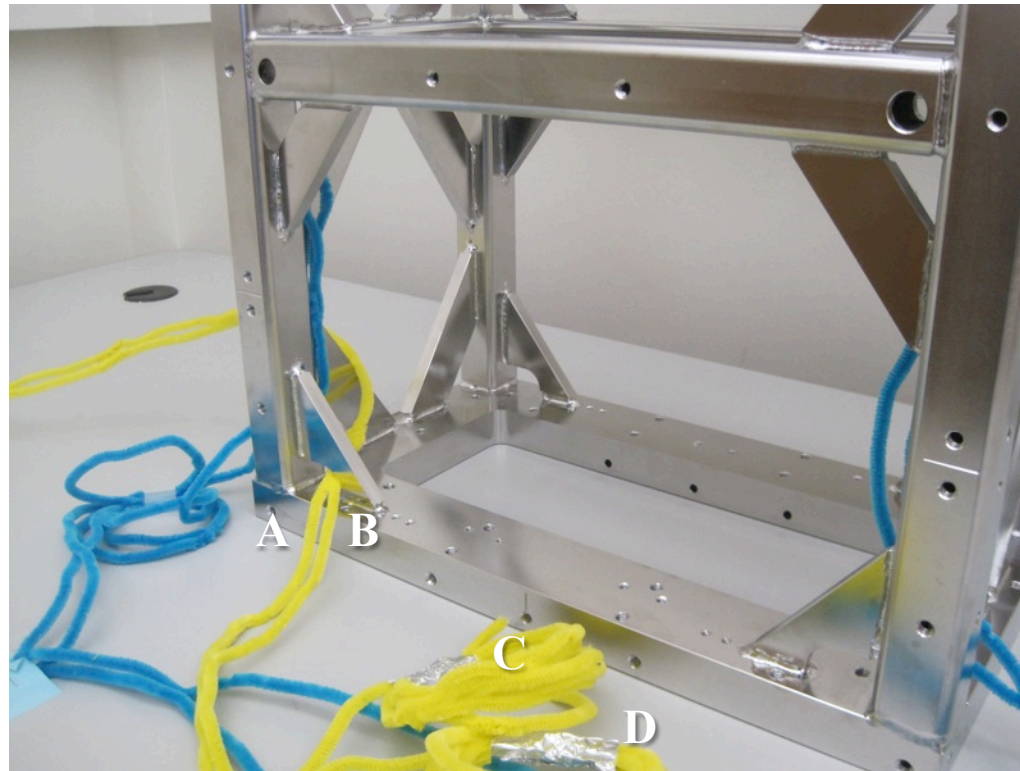
Yellow = Intermediate



AR Side/Back (-X)

Intermediate Cable

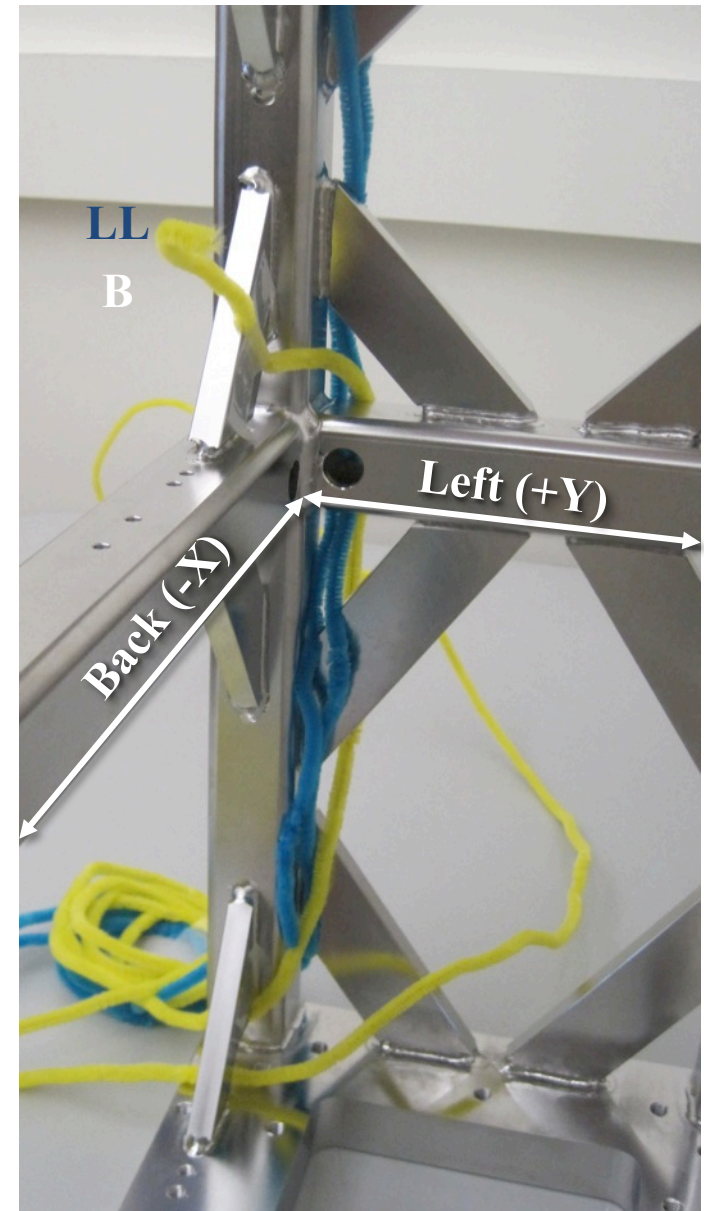
11. On the **Back (-X)**, lace A and B into the bottom left gusset, and out of the **Left (+Y)** near M3.



AR Side/Back (-X)

Intermediate Cable

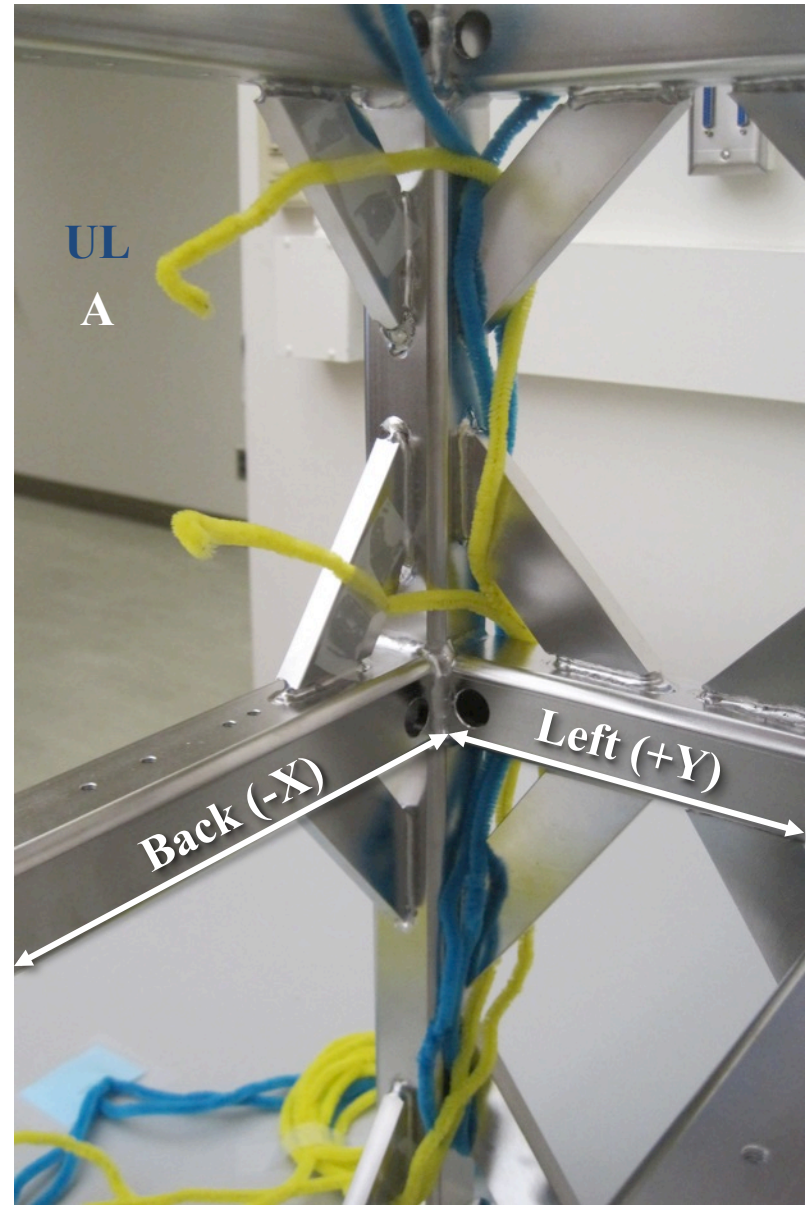
12. Lace B into the 3rd right gusset on the **Left (+Y)**, and connect to the Lower Left AOSEM. Pull taut.



Inside View

Intermediate Cable

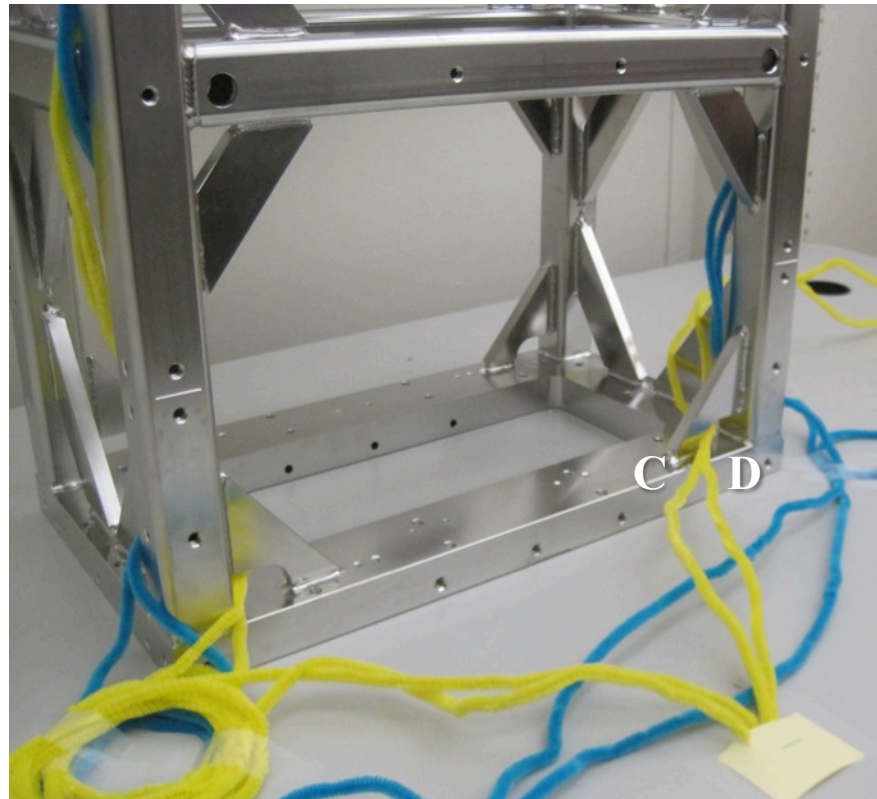
13. On the **Left (+Y)**, lace A into the 3rd right gusset, and out near M2.
14. Lace A into the top right gusset, and connect to the Upper Left AOSEM. Pull taut.



Inside View

Intermediate Cable

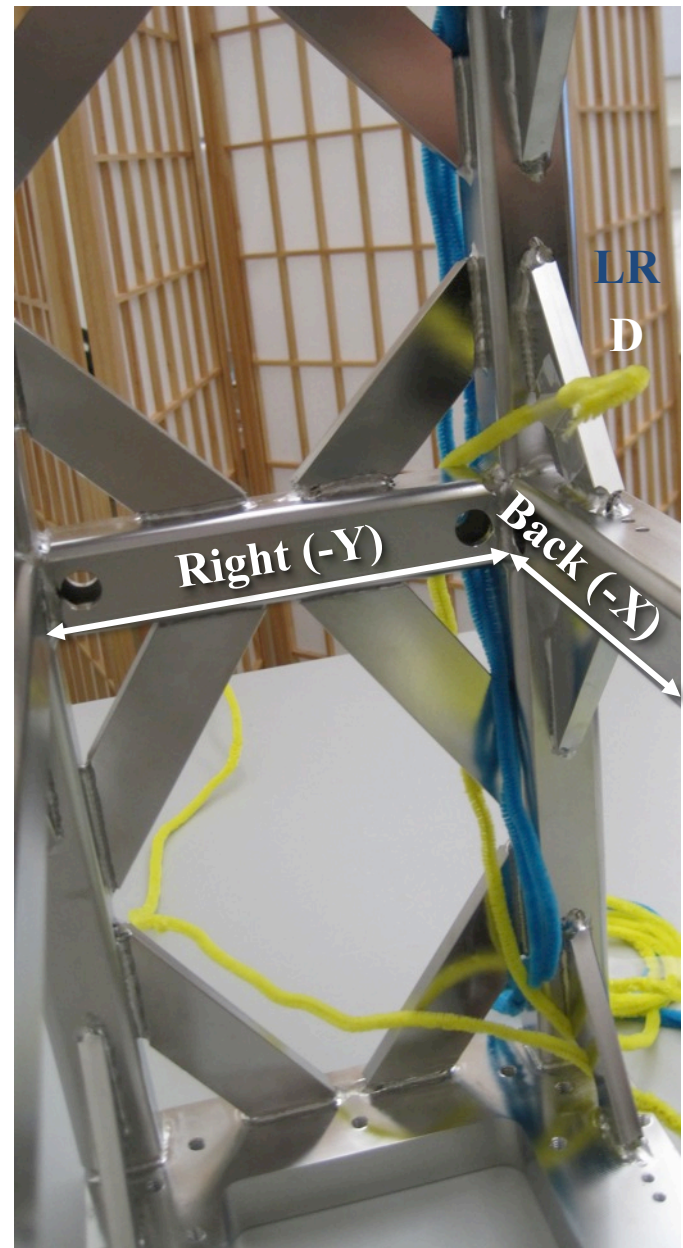
15. On the **Back (-X)**, lace C and D into the bottom right gusset, and out of the **Right (-Y)** near M3.



AR Side/Back (-X)

Intermediate Cable

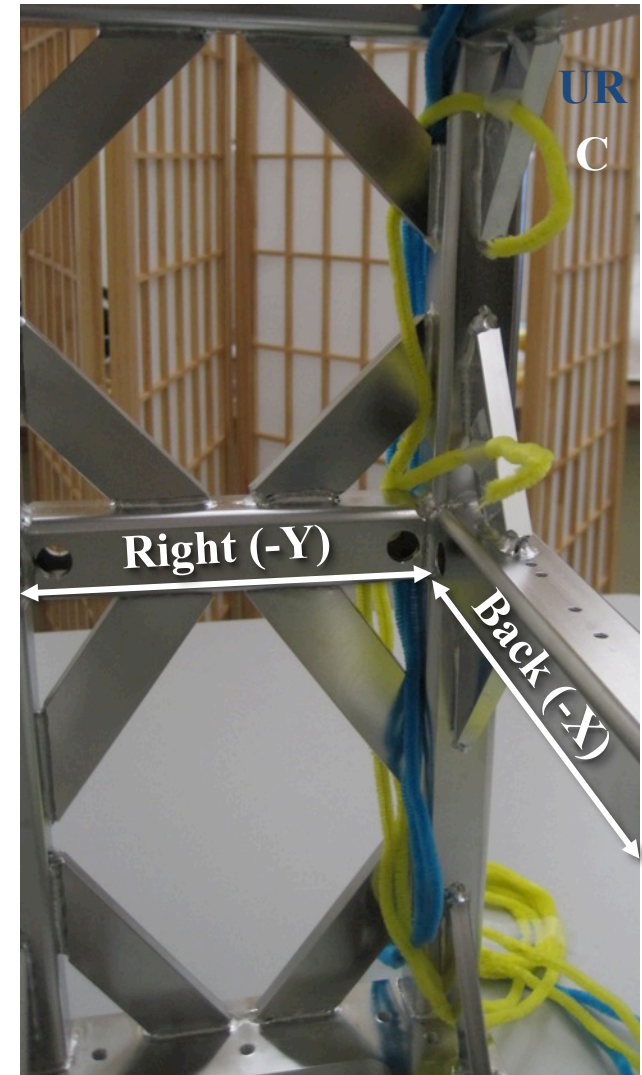
16. Lace D into the 3rd left gusset on the **Right (+Y)**, and connect to the Lower Right AOSEM. Pull taut.



Inside View

Intermediate Cable

17. On the **Right (-Y)**, lace C into the 3rd left gusset, and out near M2.
18. Lace C into the top left gusset, and connect to the Upper Right AOSEM. Pull taut.

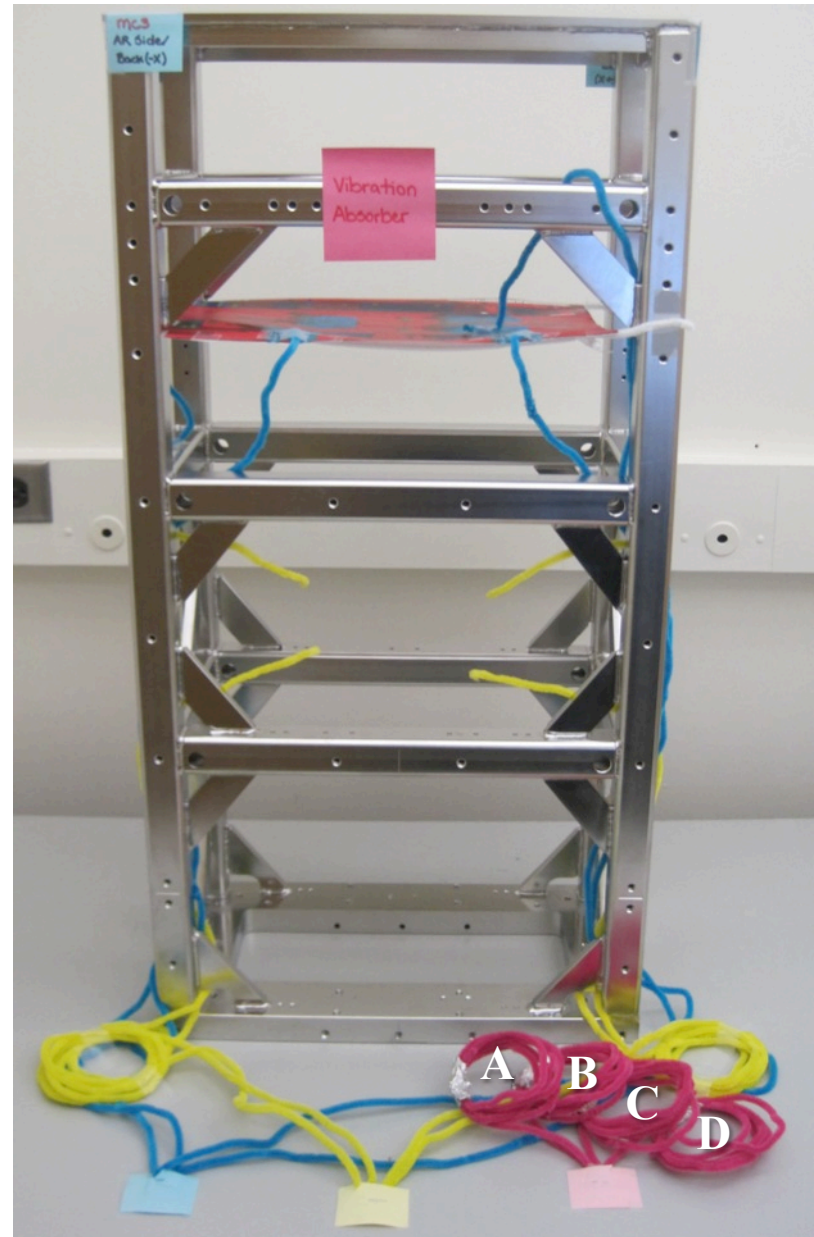


Inside View

Bottom Cable

19. Lay out the bottom quadrapuss (D1000234 60").

Pink = Bottom

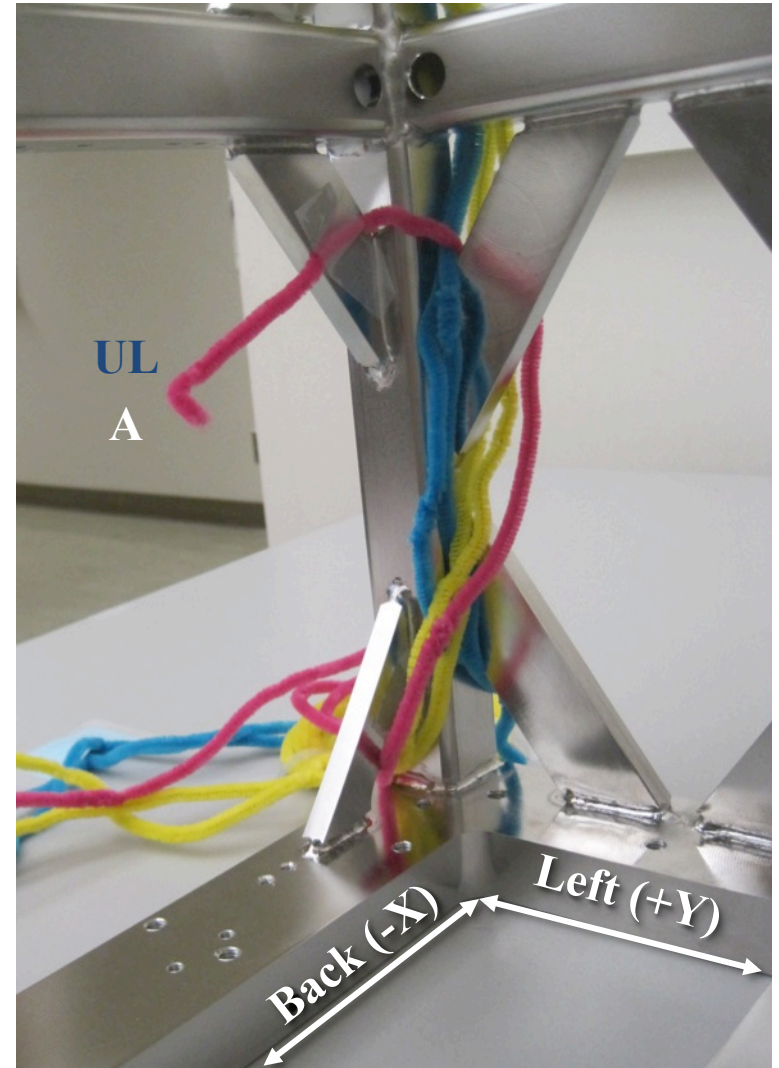


AR Side/Back (-X)

Bottom Cable

20. On the **Back (-X)**, lace A into the bottom left gusset and out of the **Left (+Y)** near M3.

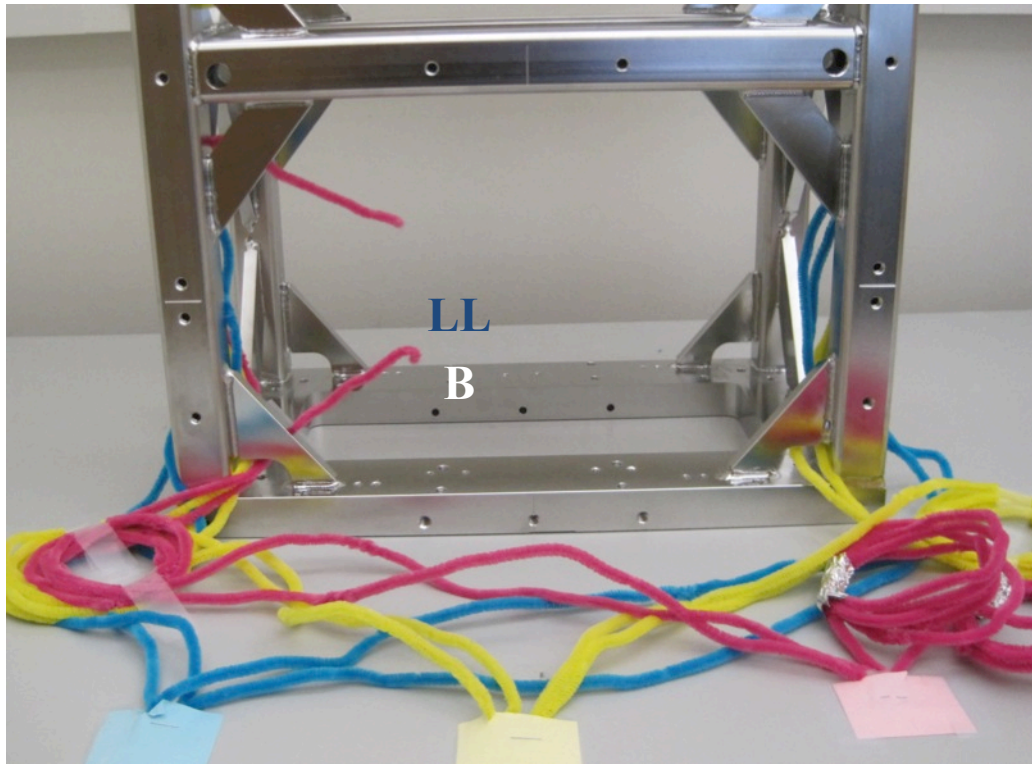
21. On the **Left (+Y)**, lace A into the 2nd right gusset, and connect to the Upper Left AOSEM. Pull taut.



Inside View

Bottom Cable

22. Lace B into the bottom left gusset, and connect to the Lower Left AOSEM. Pull taut.

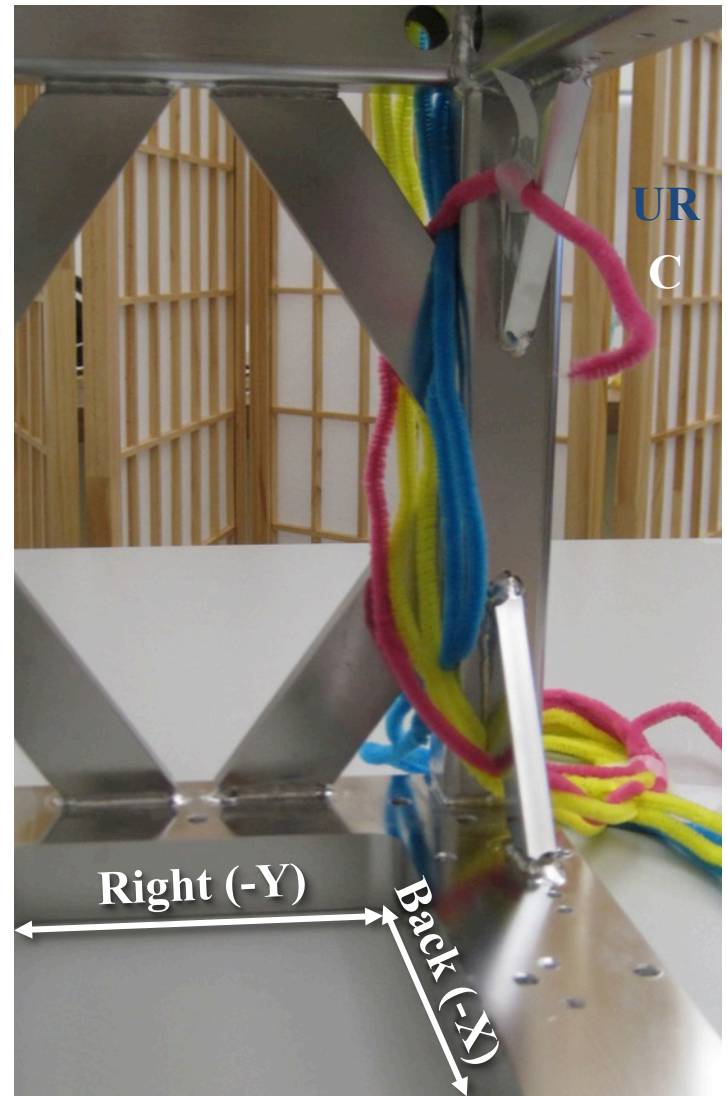


AR Side/Back (-X)

Bottom Cable

23. On the **Back (-X)**, lace C into the bottom right gusset and out of the **Right (-Y)** near M3.

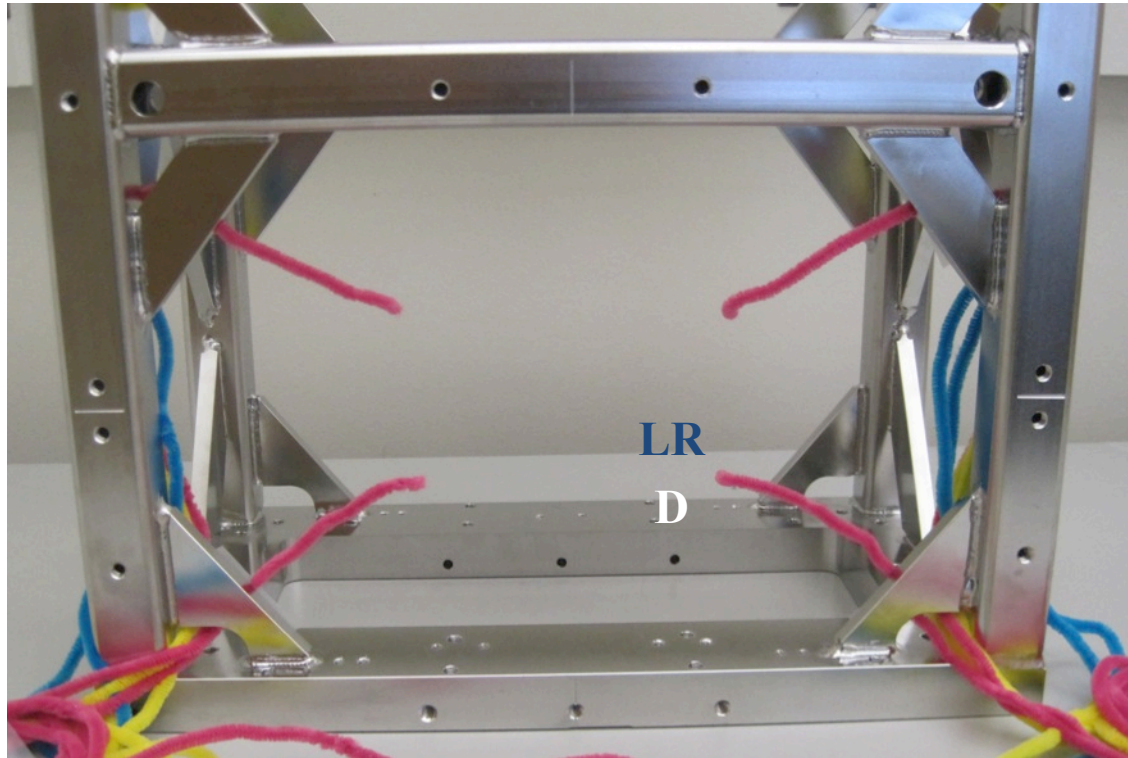
24. On the **Right (-Y)**, lace C into the 2nd left gusset, and connect to the Upper right AOSEM. Pull taut.



Inside View

Bottom Cable

25. Lace D into the bottom right gusset, and connect to the Lower Right AOSEM. Pull taut.



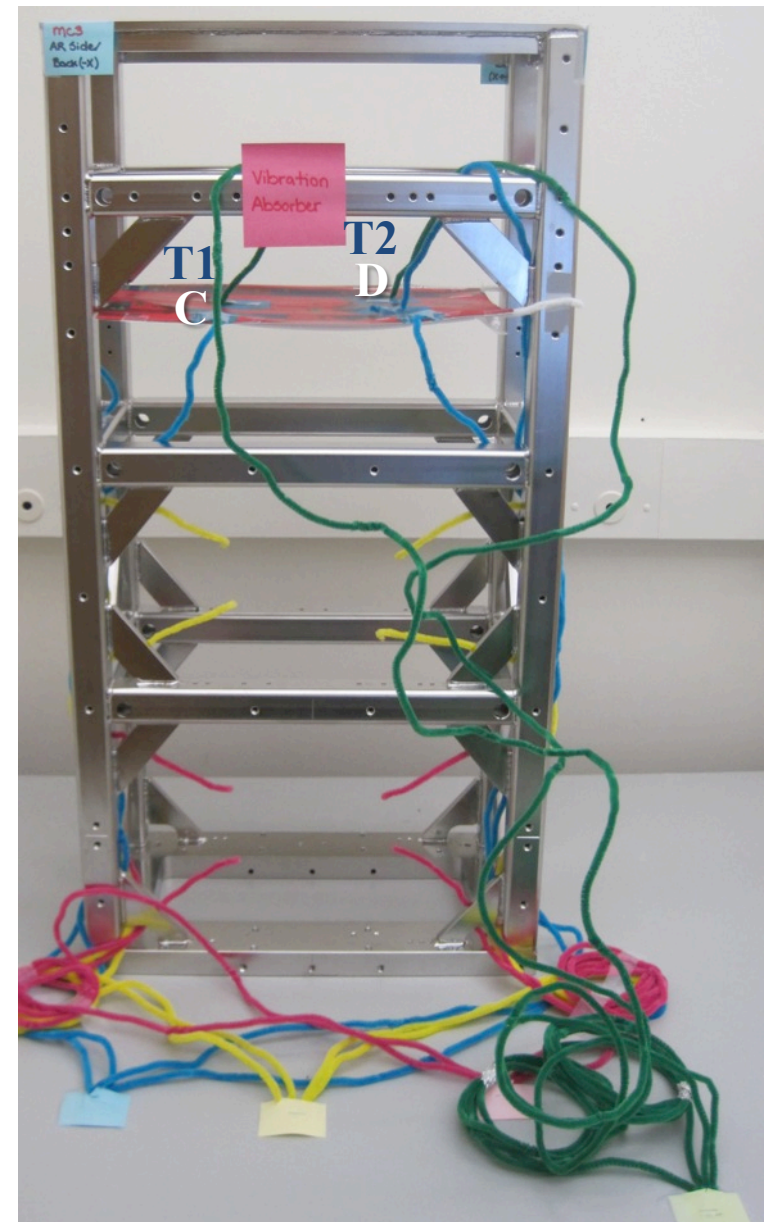
AR Side/Back (-X)

Top Shared Cable

Any length can be used for the top shared cable during testing.

Green = Top Shared

26. Connect C to the T1 BOSEM, and D to the T2 BOSEM. Allow cables to hang loosely.

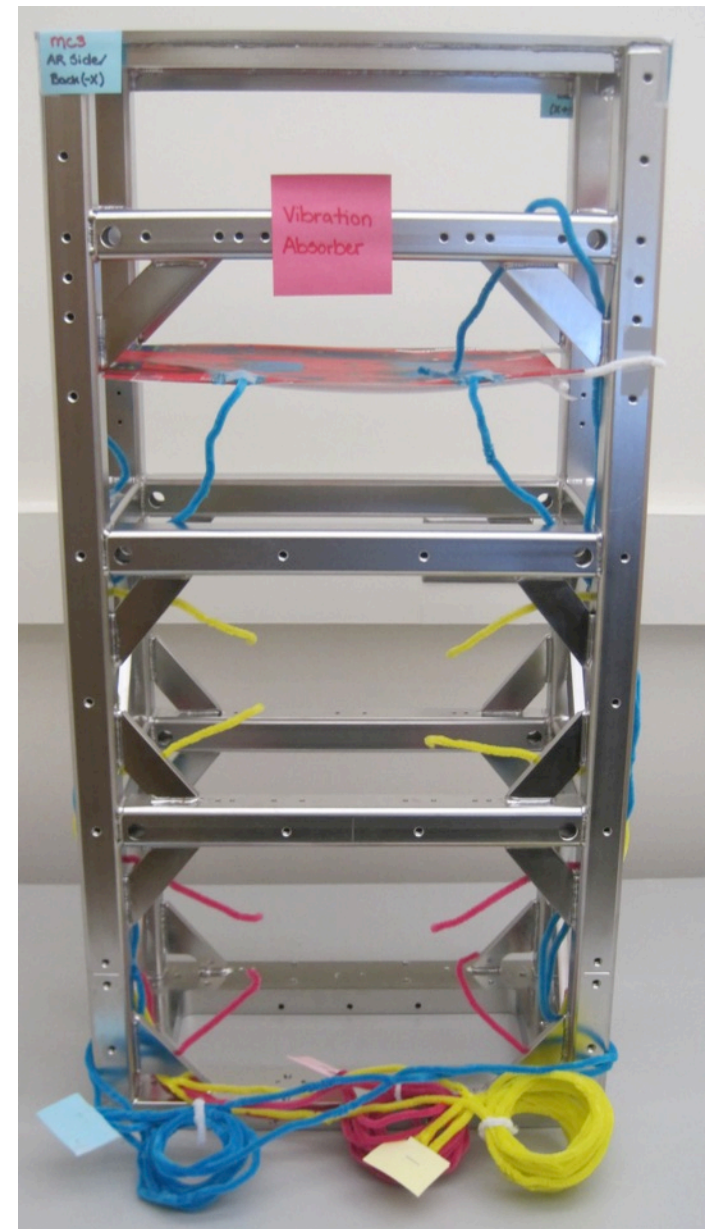


AR Side/Back (-X)

Cabling for Transportation with Lifting Brackets

All Cables

1. Disconnect the top shared cable, and remove from SUS.
2. Coil remaining cables near the base of the SUS. Use wire to hold the bundled cables.



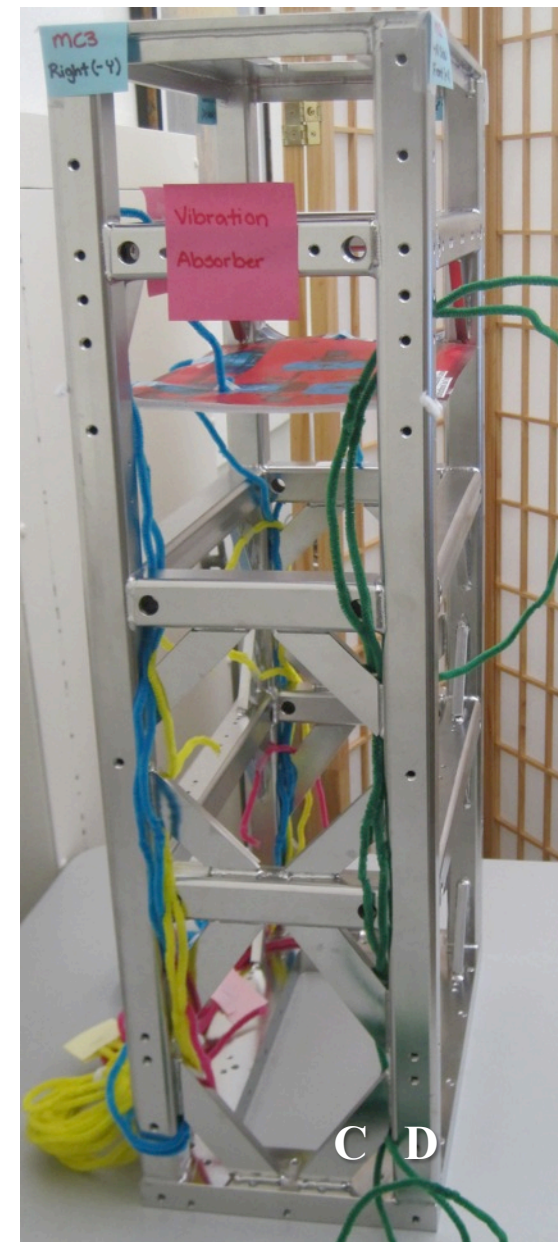
AR Side/Back (-X)

Cabling in Chamber

Top Shared Cable

Green = Top Shared (78")

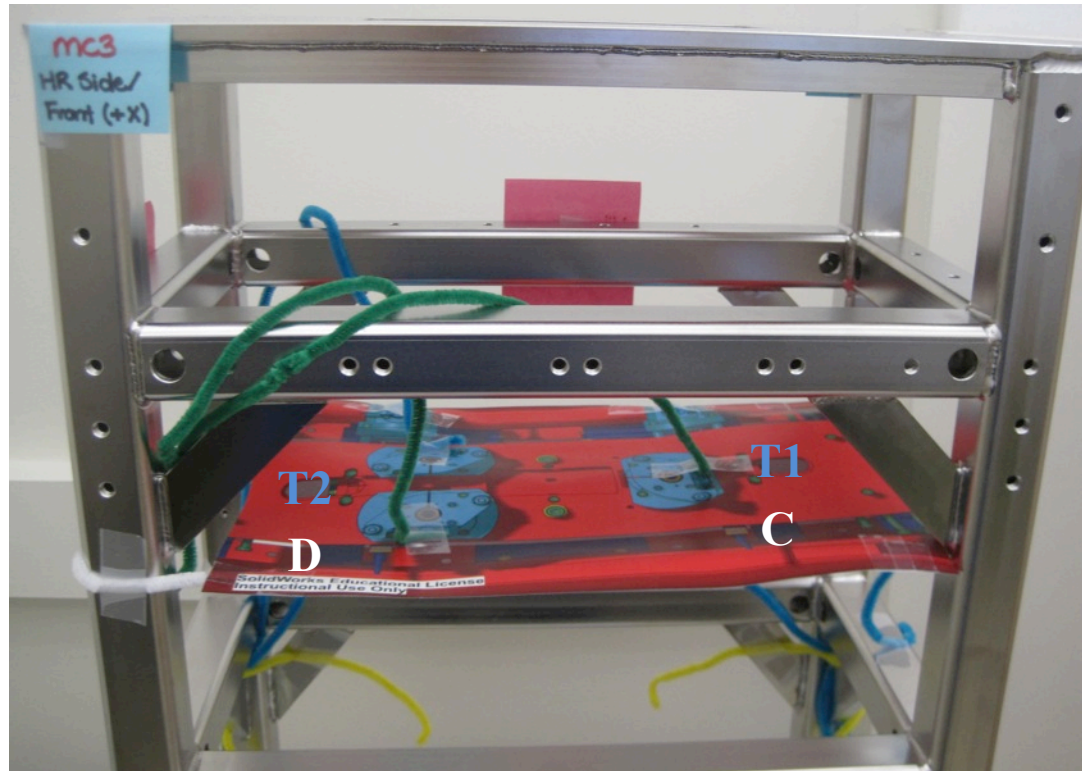
1. Lace C and D into the bottom right gusset, and out of the 2nd right gusset.
2. Lace C and D into the SUS near M2, and out of the 3rd right gusset.
3. Lace C and D into the SUS near M1, and out of the Back (-X) using the top left gusset.



Right (-Y)

Top Shared Cable

4. Wrap C over the top tube, and connect to T1 BOSEM. Pull taut.
5. Wrap D over the top tube, and connect to T2 BOSEM. Pull taut.



HR Side/Front (+X)