

## 2.032 FSL SAMS SENSOR ENCLOSURE INSTALLATION/DEINSTALLATION

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### OBJECTIVE:

Space Acceleration Measurement System II (SAMS II). To mount (and to dismount) the SAMS Sensor Enclosure (SE) and it's associated cable onto the FSL (located in the Columbus module).

### CREW:

One

### ITEMS:

SE P/N 60005MA12100 S/N 121-F08

SAMS Cable Assy P/N 60005EA12303 S/N EA12303-01

SAMS Seat Track Device P/N 60005MA50043 S/N 002

Velcro Ties

### TOOLS:

Digital Camera

### 1. SAMS CABLE RELOCATION FROM MSG TO COL

- |           |     |   |
|-----------|-----|---|
| LAB1O1_F1 | 1.1 | ✓ <b>POIC</b> for SAMS power off prior to cable disconnect.   |
|           | 1.2 | SAMS Cable Assy P6 ← →SAMS - J1. Cap cable connector.         |
| LAB1S2_A1 | 1.3 | SAMS Cable Assy P1 ← →CH A/B J1 (SAMS SE)                     |
|           | 1.4 | Unsecure, coil, and transfer SAMS Cable Assy to Columbus Lab. |

### 2. SAMS SE 121-F08 RELOCATION FROM ER3 TO FSL

- |               |     |  |
|---------------|-----|--|
| COL1A1_D<br>1 | 2.1 | MSG SE Cable P1 TO SE J1 ← →CH A/B J1 on SE.   |
|               | 2.2 | MSG SE CABLE P3/P4 ← → SAMS- J1. Cap, coil and secure the MSG SE Cable.  |
|               | 2.3 | Remove SAMS-II Seat Track Device (with SAMS SE 121-F08 mounted) from ER3 Rack Front Seat track by loosening thumbscrews (two). |

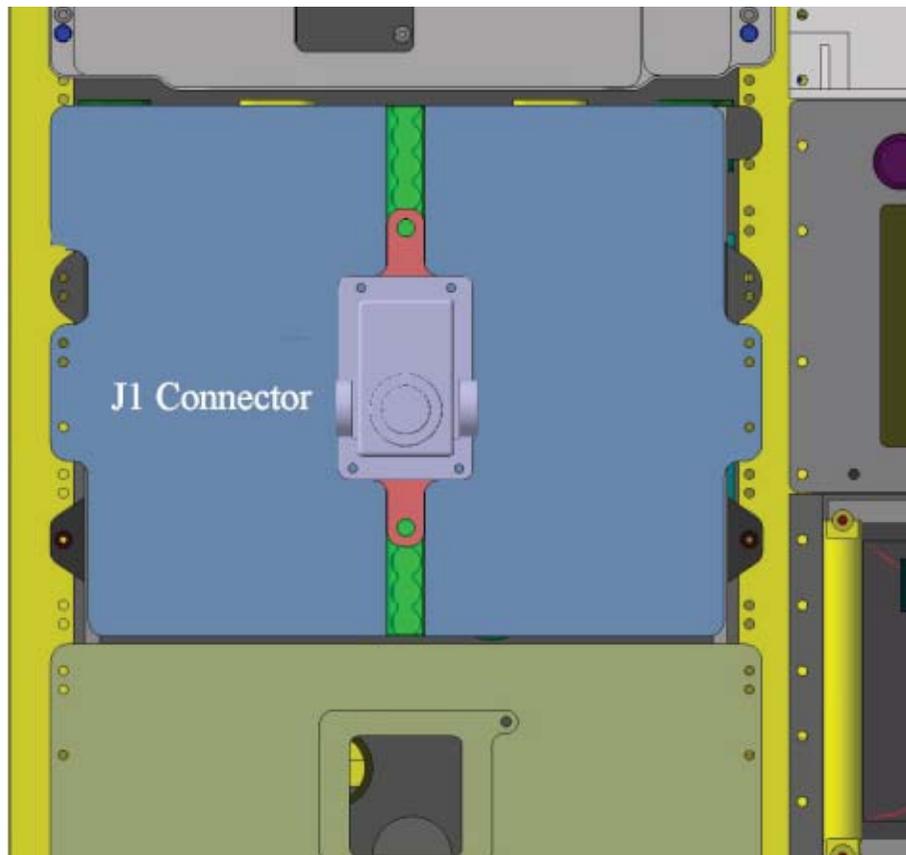


Figure 1. SAMS SE onto SAMS Seat Track Device mounted on FSL ODM seat track

- |               |     |   |
|---------------|-----|---|
| COL1O1_A<br>1 | 2.4 | Mount SAMS-II Seat Track Device (with SAMS SE 121-F08 mounted) to the seat track of FSL ODM. Refer to Figure 1 (the CH A/B J1 Connector towards the O2 rack). Hand tighten thumbscrews (two). |
| COL1A1_F<br>1 | 2.5 | SAMS Cable Assy P6 → ←SAMS - J1   |

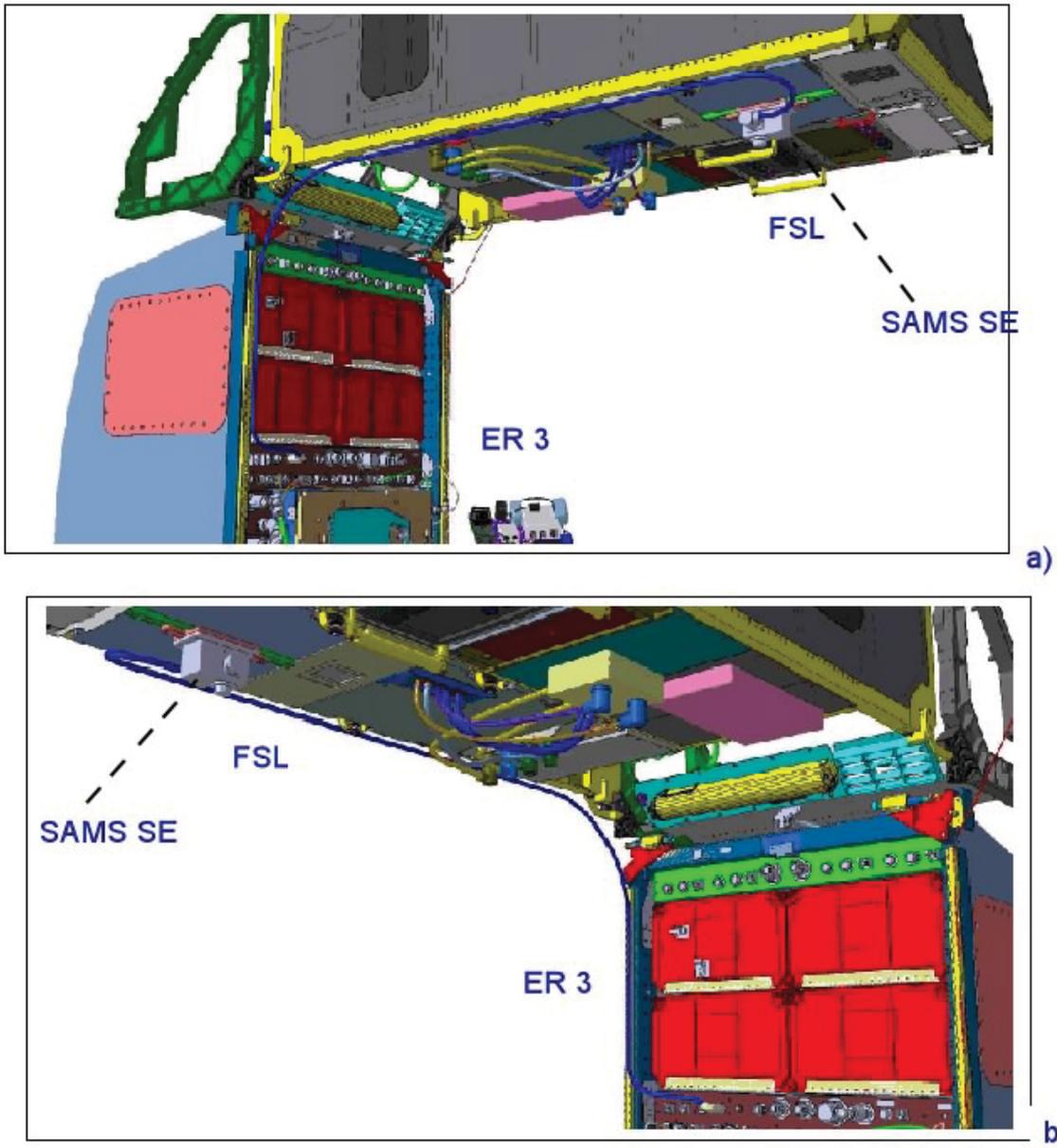


Figure 2. SAMS Cable Assy cable routing from ER3 to FSL ODM

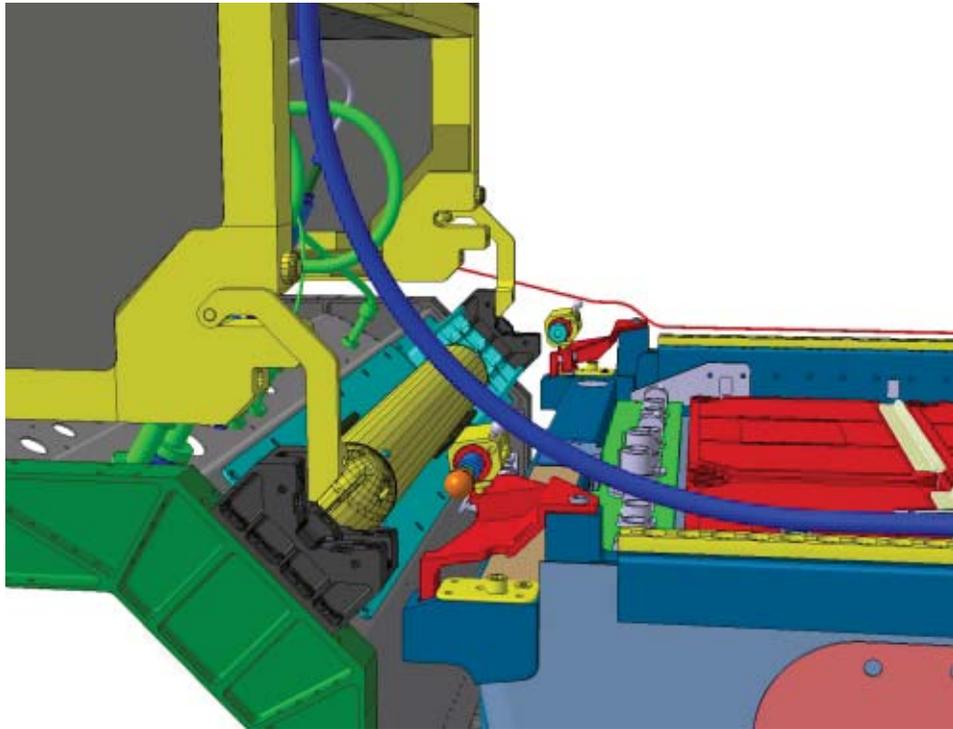


Figure 3. Detail of the SAMS Cable Assy (blue cable) routing in the standoff between FSL and ER3

Bend Radius  
about 9.5 cm

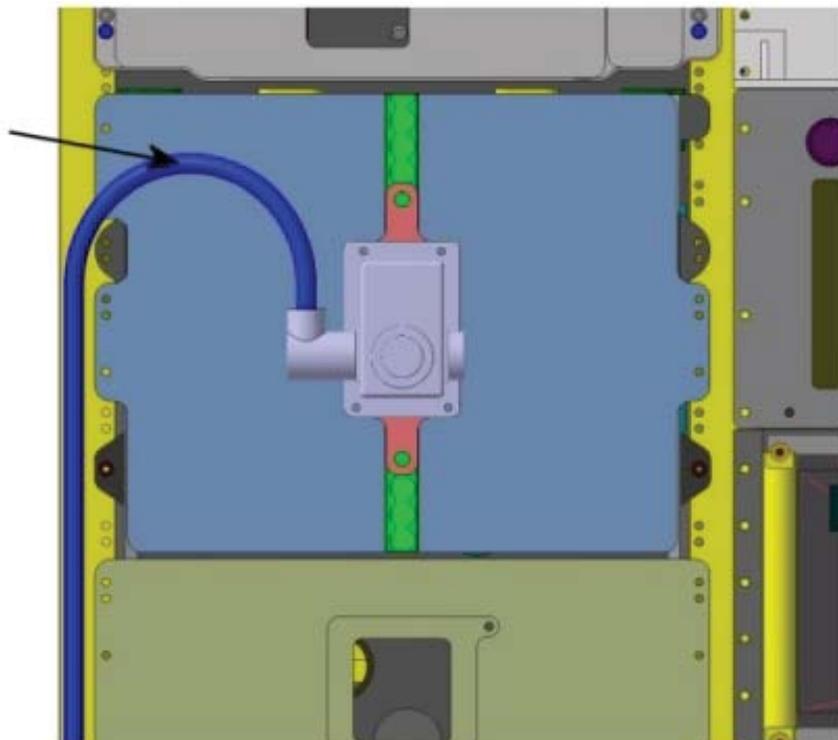


Figure 4. Detail of SAMS Cable Assy connection to SAMS SE mounted on FSL ODM

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### NOTE

1. The SAMS cable should be installed as flush as possible to the surface, avoiding sharp bending and pinching by doors or slides or mechanisms
2. The SAMS cable should not be routed over the MLU between FSL and ER3
3. Gaps between data cable and racks should be larger than 3.5 cm.

SE (on  
COL101\_F  
1)

2.6 Route the SAMS Cable Assy from the EXPRESS Rack 3 (A1) outboard seat track to the SAMS SE on FSL ODM (refer to Figures 2, 3 and 4). Secure SAMS Cable Assy with Velcro Straps as necessary.

2.7 SAMS Cable Assy P1 →|←CH A/B J1

2.8 Wrap cap tethers around SAMS Cable Assy, join captive caps together.

2.9 Photo document the SAMS SE location on FSL (one close-up photo of the SAMS SE and its serial number tag, and one overall photo of the SAMS SE orientation in relation to the FSL rack) and the new cable routing [Digital Camera].

2.10 Notify **POIC** when complete for SAMS sensor activation

### 3. SAMS SE DISASSEMBLY FROM FSL

3.1 ✓**POIC** for SAMS power off prior to cable disconnect.

COL1A1\_F  
1

3.2 SAMS Cable Assy P6 ←|→SAMS - J1

SE (on  
COL101\_F  
1)

3.3 SAMS Cable Assy P1 ←|→CH A/B J1

3.4 Unsecure, coil, and temp stow SAMS Cable Assy (it will be transferred to US Lab later)

COL101\_F  
1

3.5 Remove the SAMS-II Seat Track Device/SE (with SAMS SE 121-F08 mounted) from the seat track of FSL ODM by loosening thumbscrews (two).

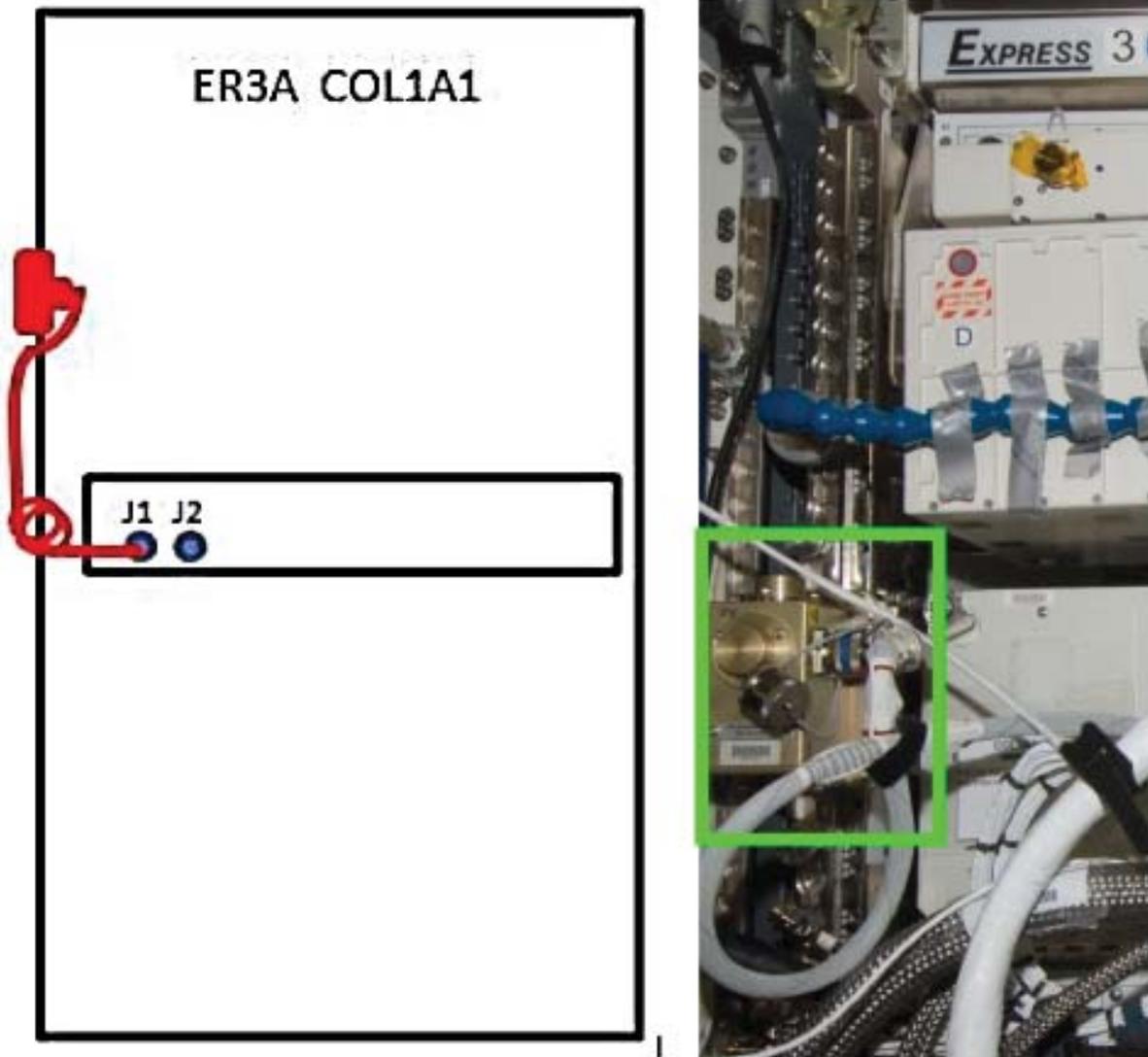


Figure 5. SAMS Cabling for ER3

- |                       |  |
|-----------------------|--|
| COL1A1_D<br>1         | <p>3.6 Mount SAMS-II Seat Track Device/SE (with SAMS SE 121-F08 mounted) to the seat track of ER3 per Figure 5 (the SE J1 Connector towards the rack). Hand tighten thumbscrews (two).</p> <p>3.7 Route the MSG SE Cable P/N 60005EA12324 P1 TO SE J1 to the Seat Track Device/SE (Figure 5). Secure MSG SE Cable with Velcro Straps as necessary.</p> |
| SE<br>(COL1A1_D<br>1) | <p>3.8 MSG SE Cable P1 TO SE J1→ ←CH A/B J1 (SAMS SE).</p> <p>3.9 MSG SE CABLE P3/P4→ ←SAMS- J1. Secure the MSG SE Cable.</p> <p>3.10 Wrap cap tethers around MSG cable, join captive caps together.</p>   |

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- 3.11 Photo document the new SAMS SE location (one close-up photo of the SAMS SE and its serial number tag, and one overall photo of the SAMS SE orientation in relation to the ER3 rack) [Digital Camera].

### 4. SAMS CABLE RELOCATION FROM COL TO MSG

LAB1O1\_F1 4.1 SAMS Cable Assy P6→|←SAMS - J1

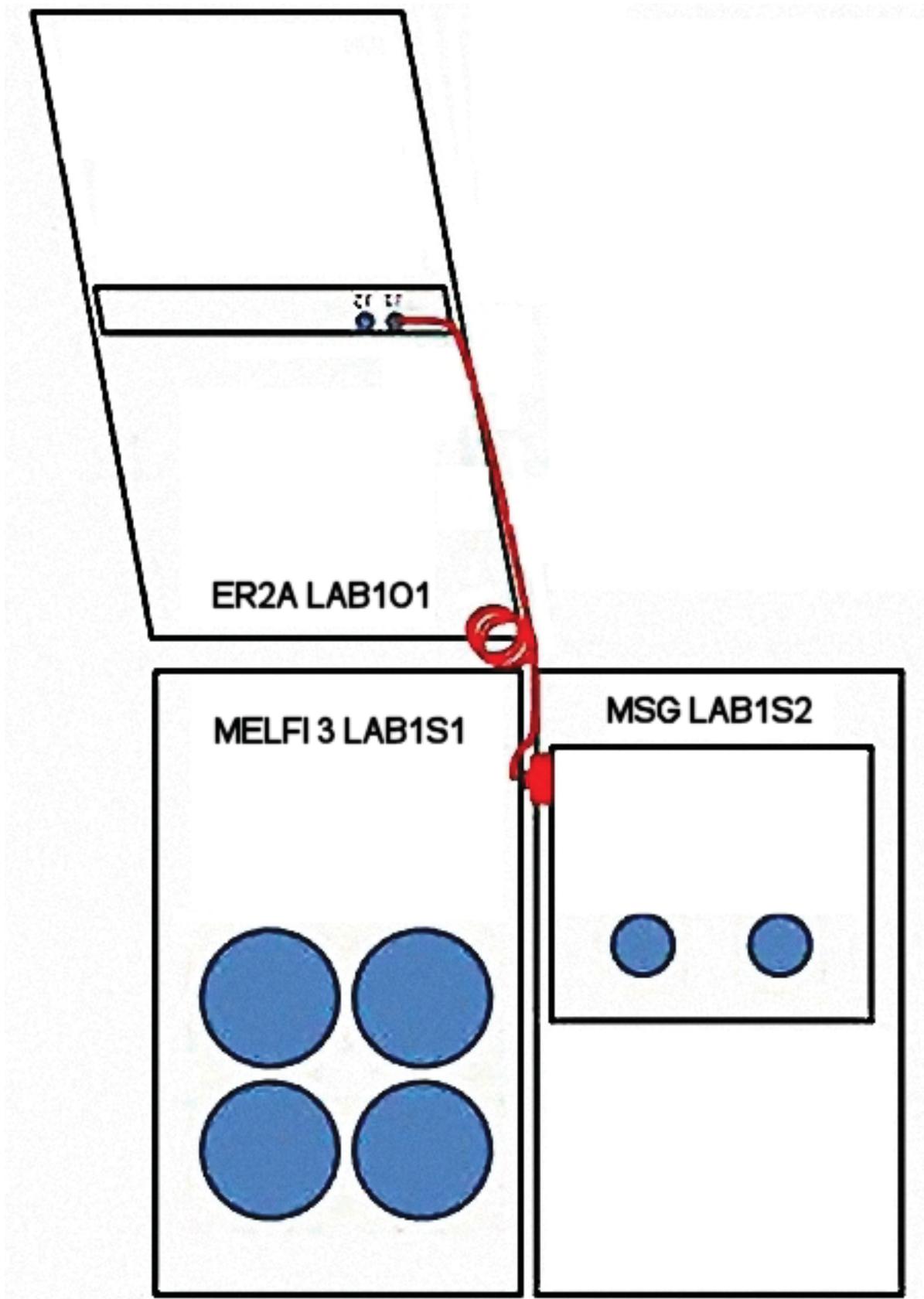


Figure 6. SAMS cable routing to MSG

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4.2 Route SAMS Cable Assy up the EXPRESS Rack 2 aft seat track and across to MSG fwd seat track to the SAMS SE (Figure 6). Coil excess cable near the top of EXPRESS Rack 2. Secure SAMS Cable Assy with velcro ties as necessary.

LAB1S2\_A1 4.3 SAMS Cable Assy P1→|← CH A/B J1 (SAMS SE)

4.4 Wrap cap tethers around SAMS Cable Assy, join captive caps together.

4.5 Photo document the SAMS SE location on MSG (one close-up photo of the SAMS SE and its serial number tag, and one overall photo of the SAMS SE orientation in relation to the MSG rack) and the new cable routing [Digital Camera].

4.6 Notify **POIC** when complete for SAMS sensor activation.

END OF PROCEDURE