

Life in Orbit – The International Space Station



CANADA AVIATION
AND SPACE MUSEUM
MUSÉE DE L'AVIATION
ET DE L'ESPACE
DU CANADA

A FASCINATING WORLD
UN MONDE FASCINANT



Canada

Living in Space – Earth Projection



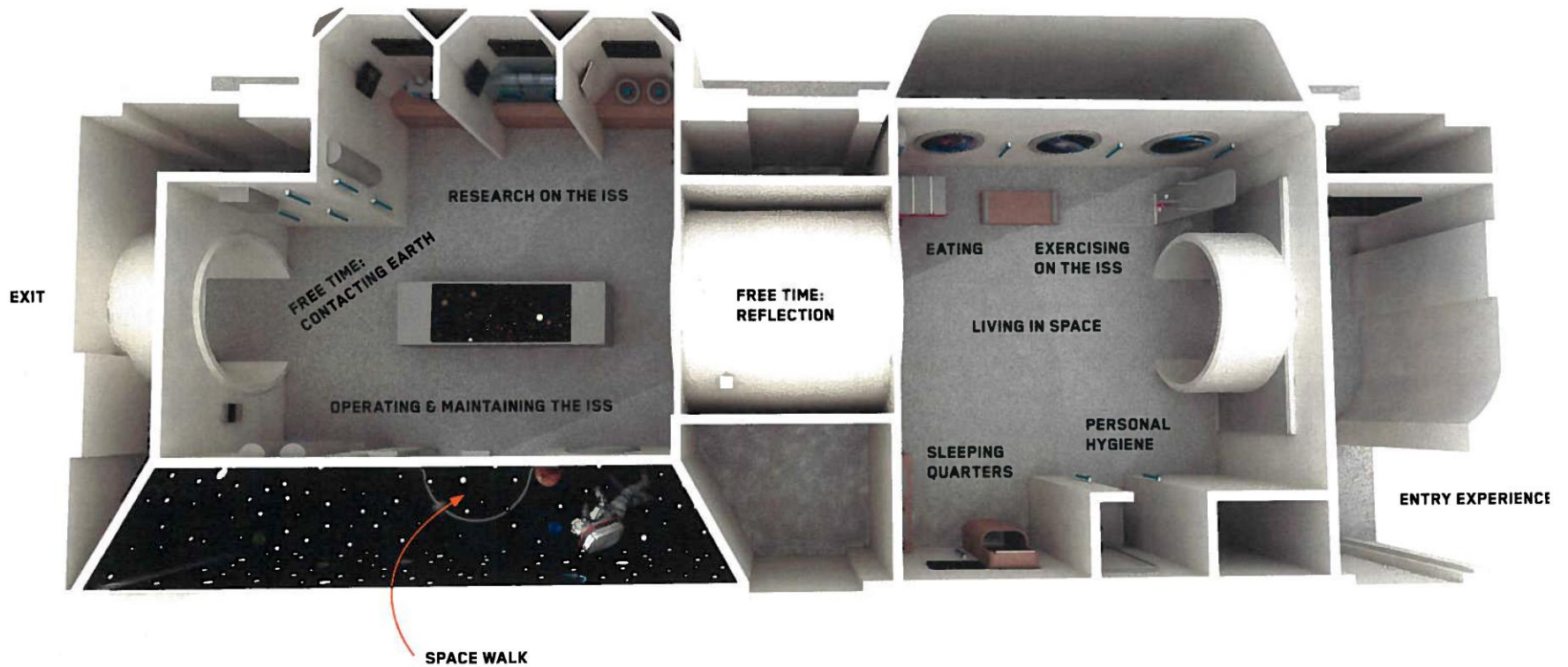
Living in Space – Earth Projection



Living in Space – Earth Projection



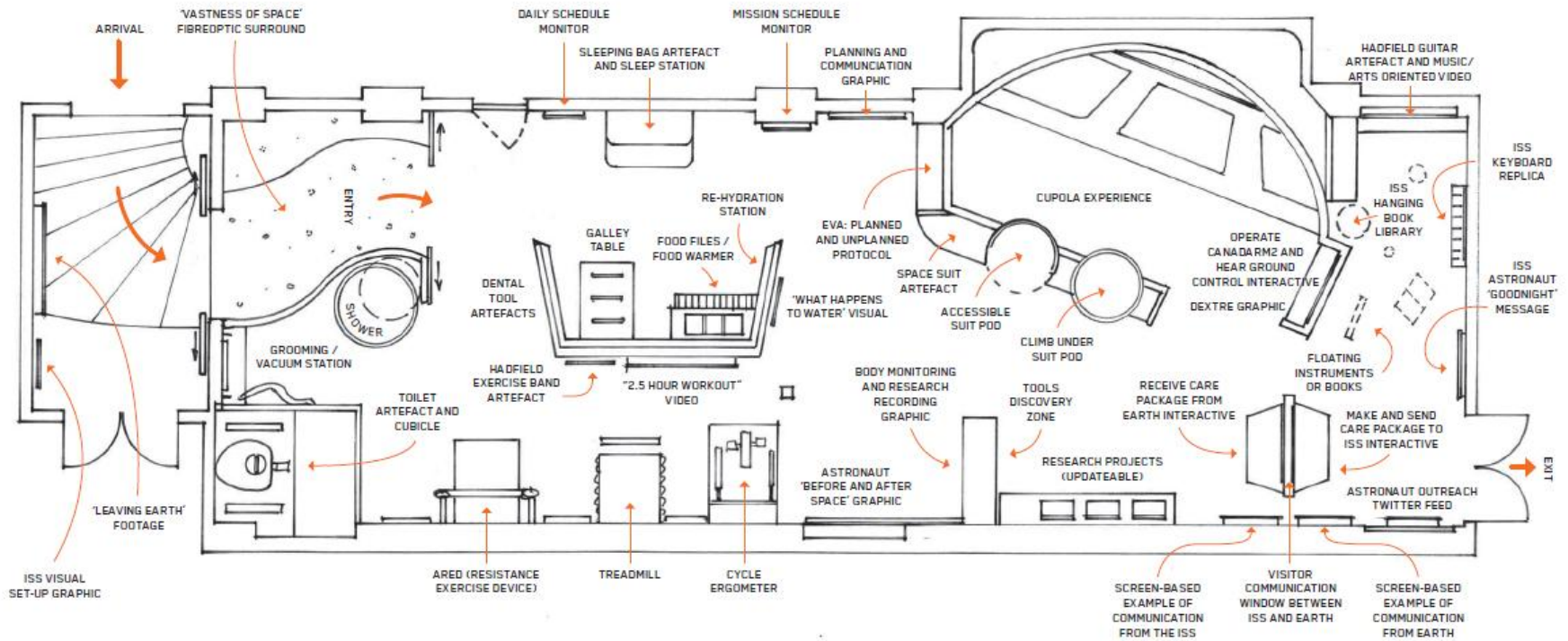
Floorplan (RFP Response)



Floorplan A – (Concept)

9.0 Visitor Experience

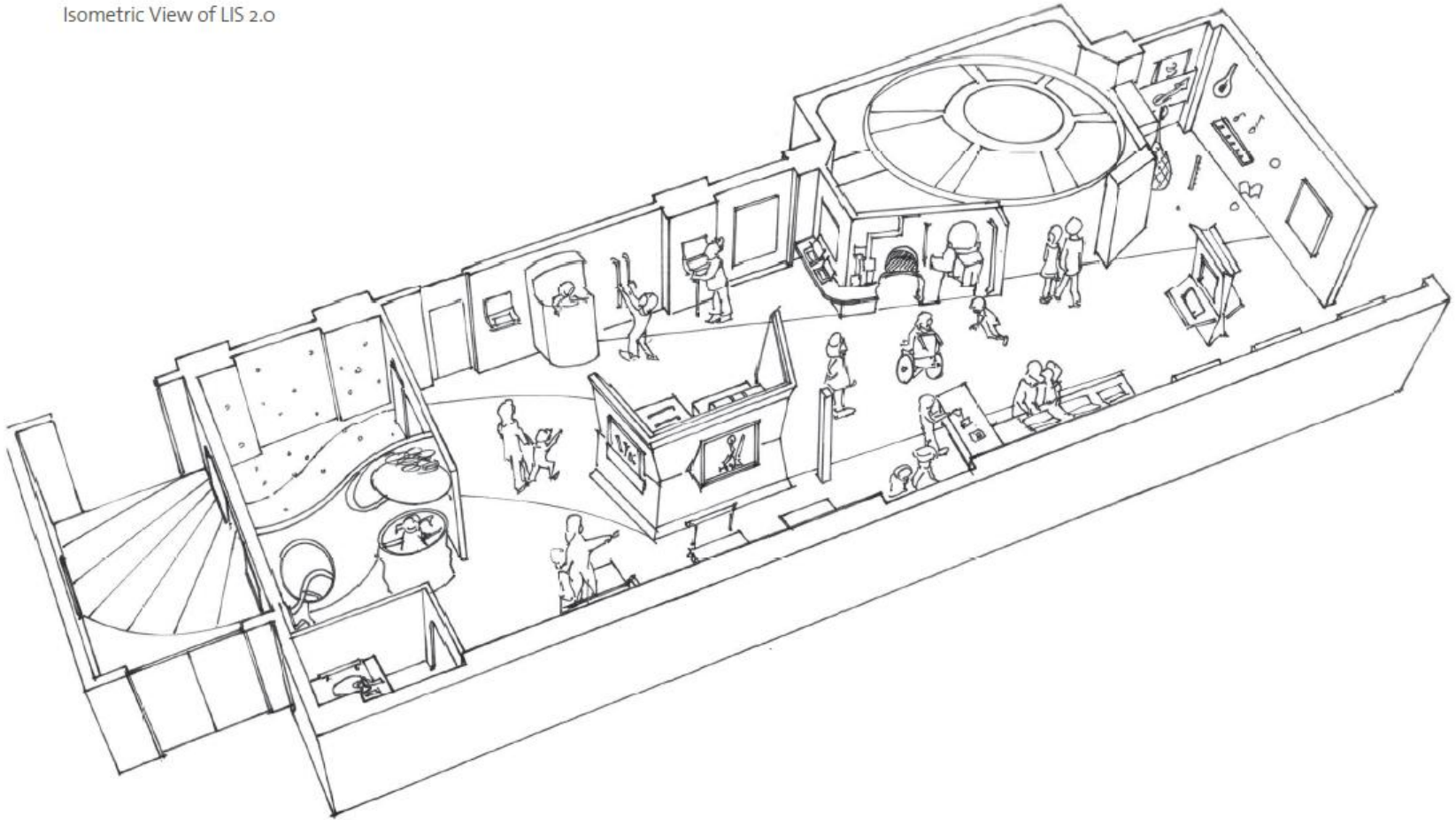
Exhibit Plan



Floorplan B – (Concept)

9.0 Visitor Experience

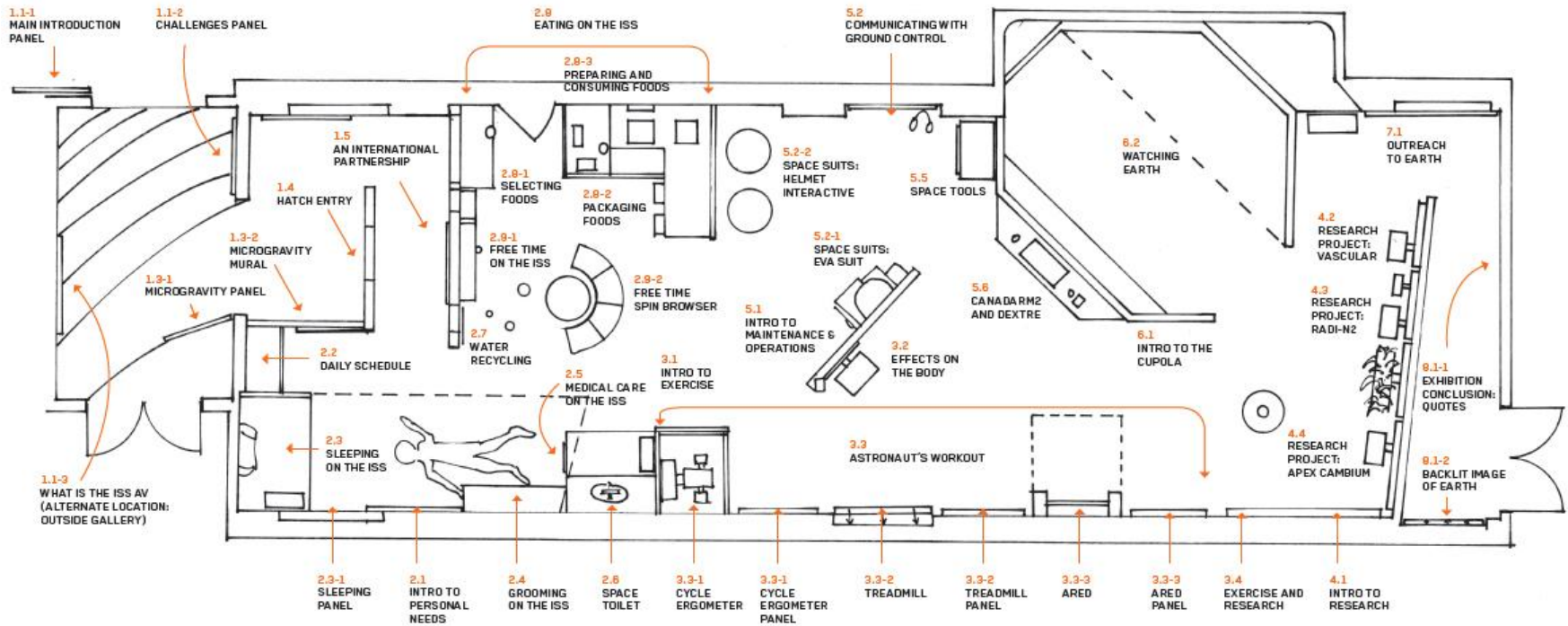
Isometric View of LIS 2.0



Floorplan A – (Schematic)

6.0 Visitor Experience

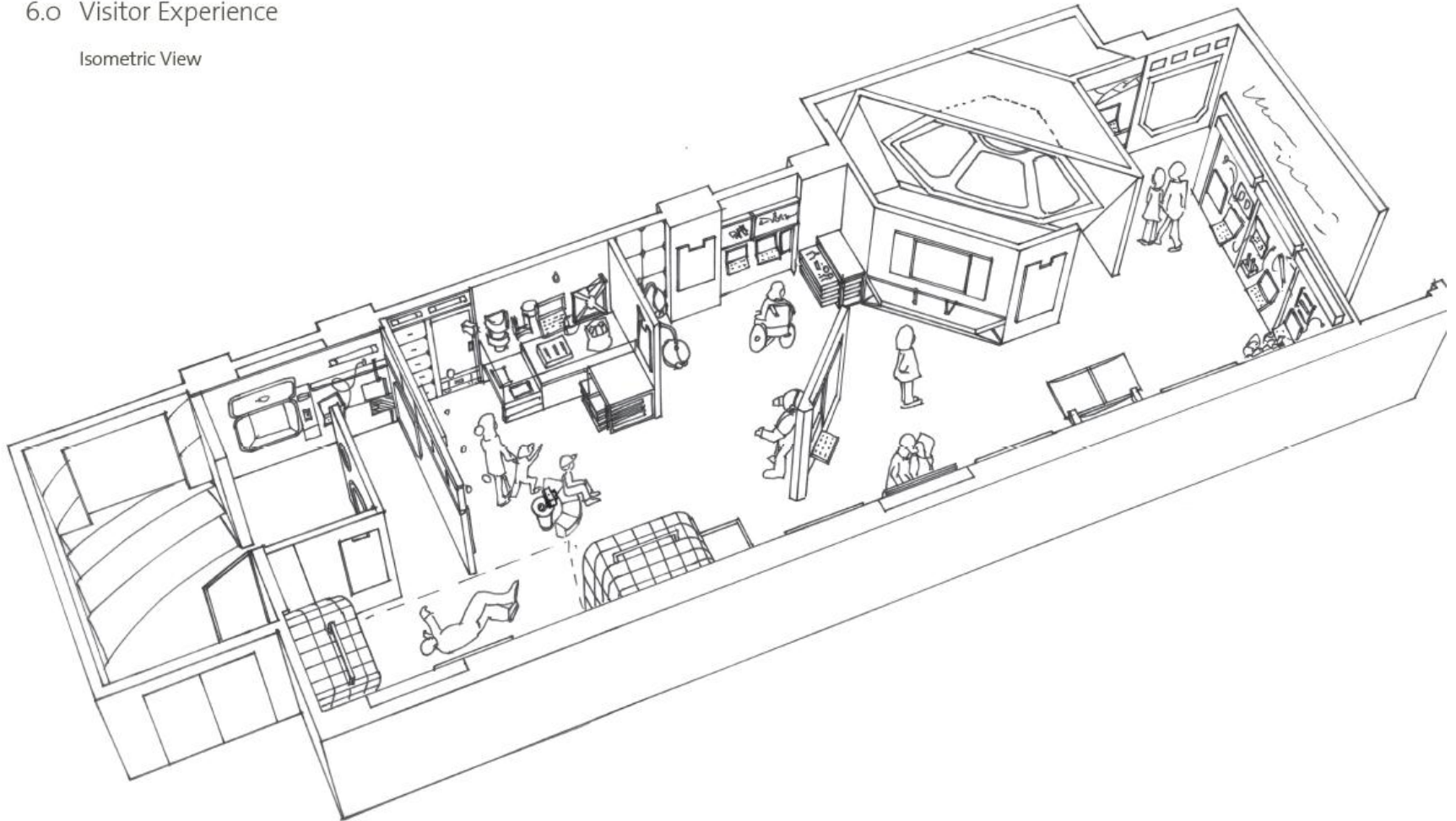
Exhibit Plan



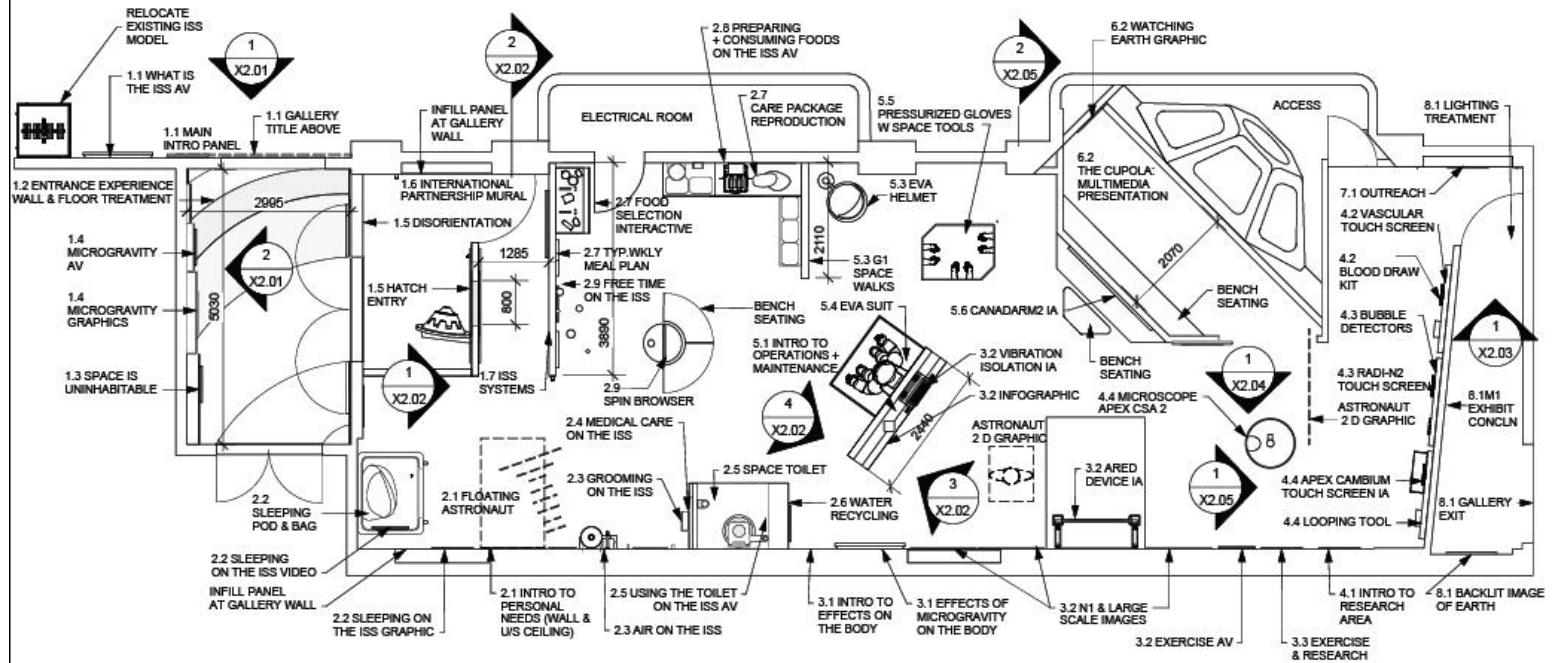
Floorplan B – (Schematic)

6.o Visitor Experience

Isometric View

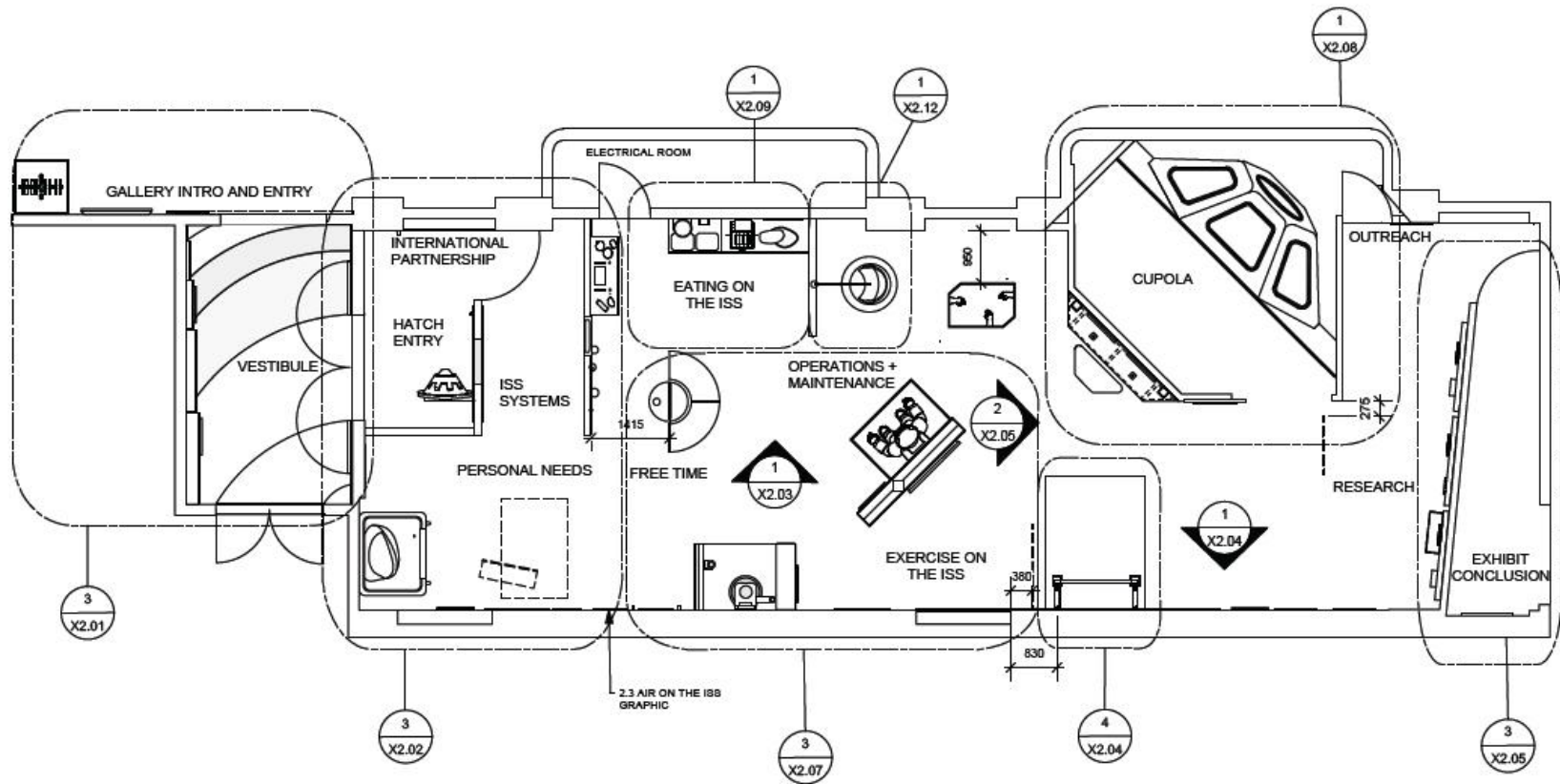


Floorplan (Design)



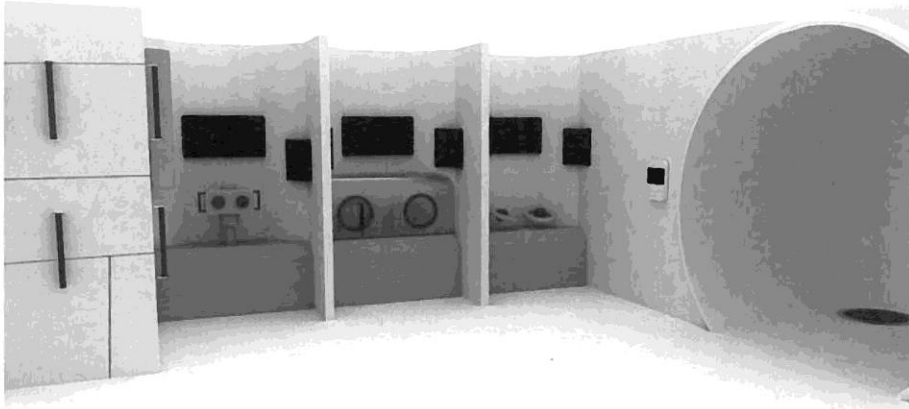
1 OVERALL EXHIBIT FLOOR PLAN
X1.01 Scale: 1:75

Floorplan (Fabrication)



1 OVERALL EXHIBIT FLOOR PLAN
X1.01 Scale: 1:75

Conceptual Image (RFP Response)



RESEARCH ON THE ISS

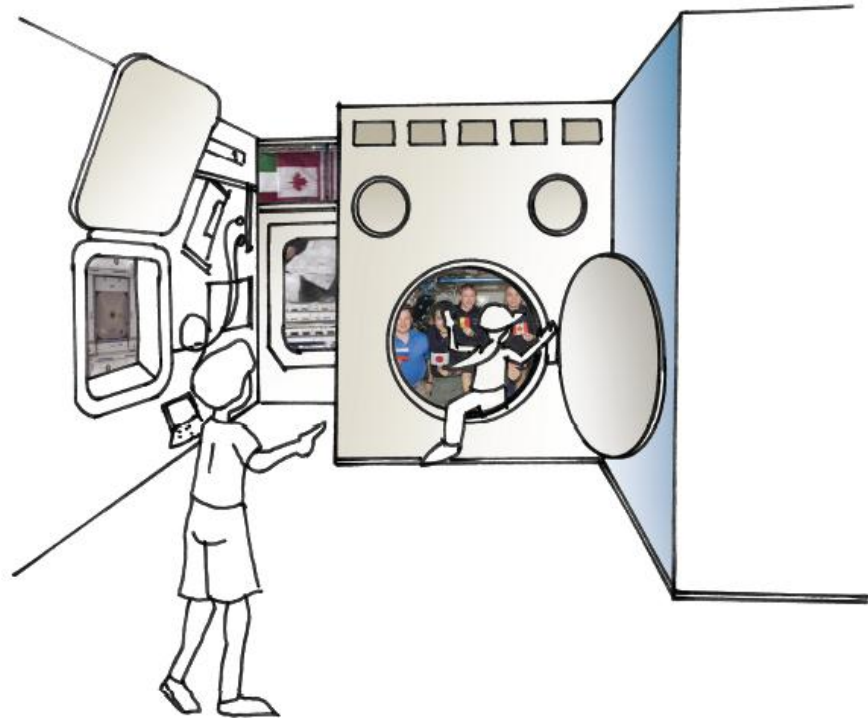


OPERATING & MAINTAINING THE ISS

Conceptual Image 1 (Schematic)

6.0 Visitor Experience

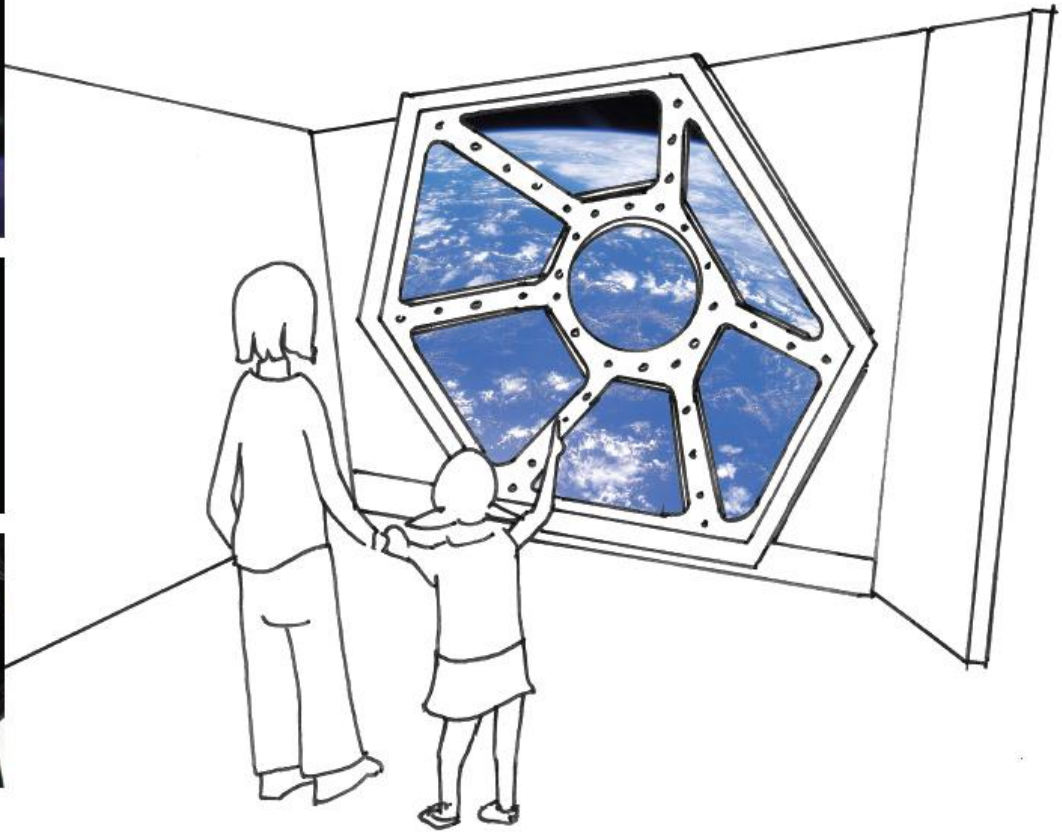
Exhibit Area Sketches — 1.0 Introduction



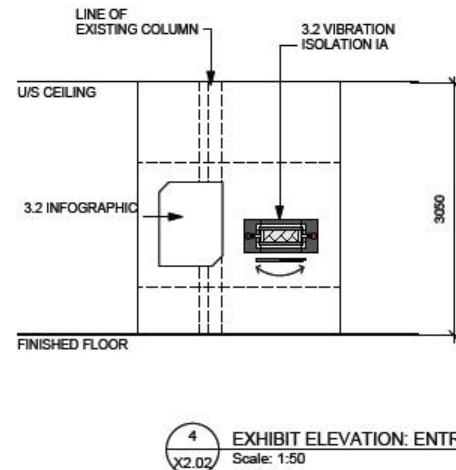
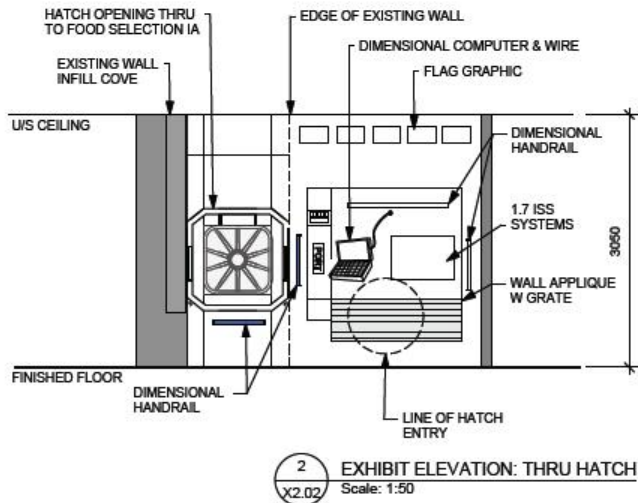
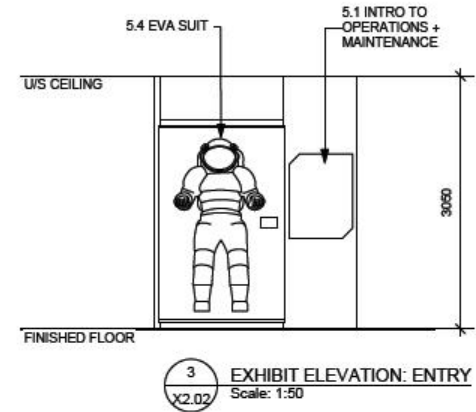
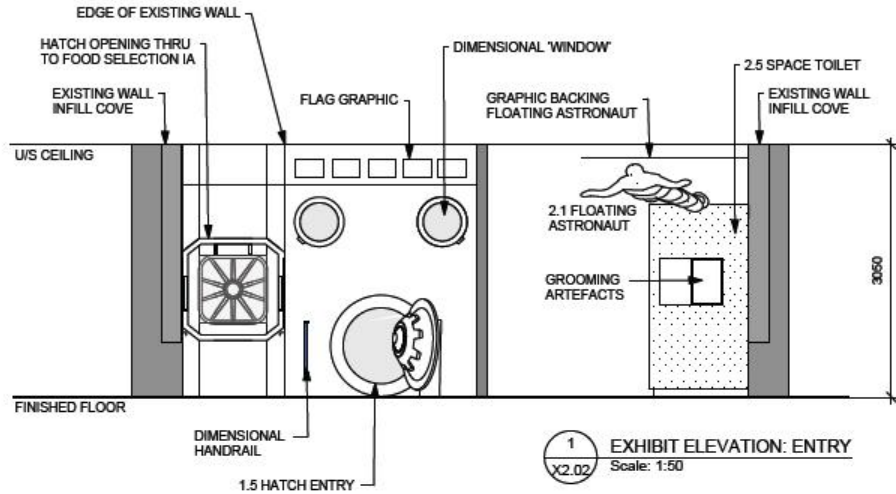
Conceptual Image 2 (Schematic)

6.o Visitor Experience

Exhibit Area Sketches — 6.o Watching Earth (The Cupola)



Layouts (Design)

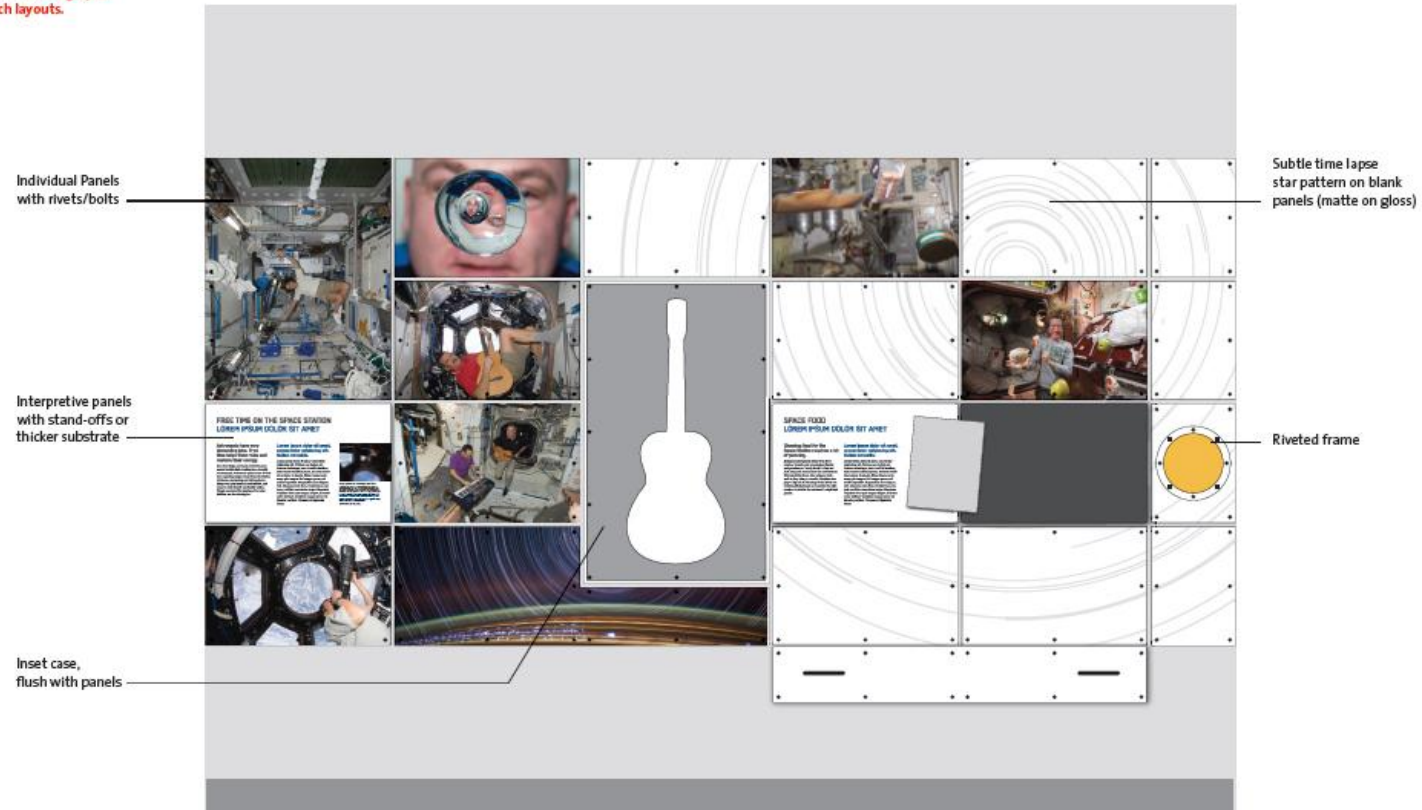


Layouts 1 (Fabrication)

4.0 Graphic Approach

4.7 Panel D Mural

NOTE: Sample texts have been used for the graphic approach layouts.

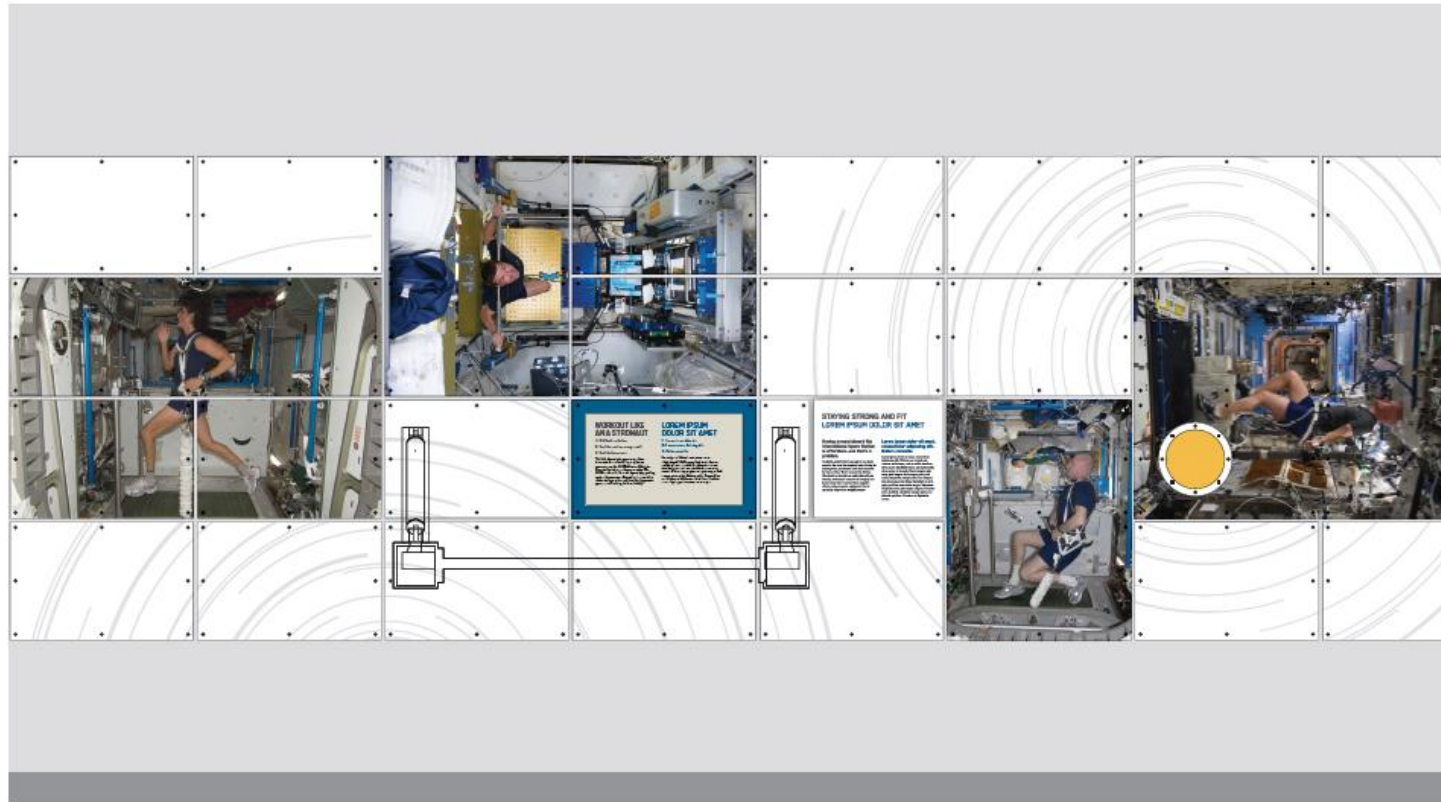


2.7: Eating on the ISS: How Foods are Selected / 2.9: Free Time on the ISS
Scale: NTS

Layouts 2 (Fabrication)

4.0 Graphic Approach

4.7 Panel D Mural



3.2: Exercise on the ISS
Scale: NTS

Panel Approach (RFP Response)

IN SPACE, NO ONE CAN HEAR YOU SCREAM...

...but everyone will hear you snore.

True privacy is not easy to come by on the International Space Station, but these small alcoves afford at least a little personal space. Each is equipped with a sleeping bag and two personal computers, one for work and the other for communicating with friends and family on the surface. A set of headphones also helps to keep those calls home private.

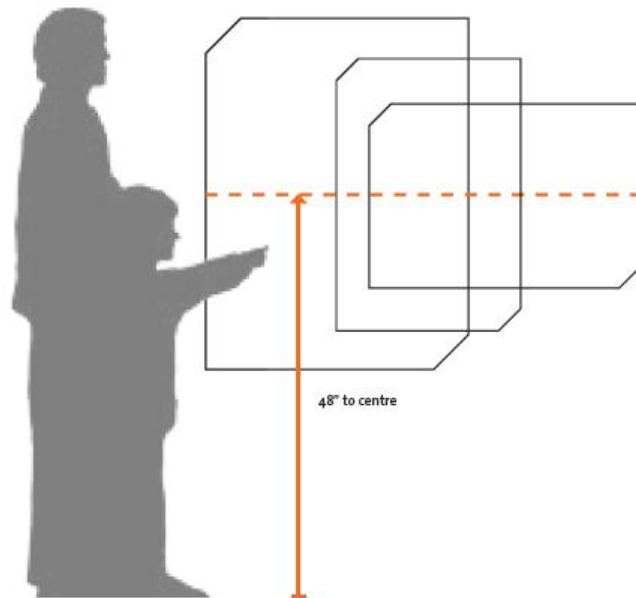
With most of his body tucked away in a sleeping bag, astronaut Daniel Tani, Expedition 16 flight engineer, poses for a photo near two extravehicular mobility unit (EMU) spacesuits in the Quest Airlock of the International Space Station.



Panel Approach (Schematic)

8.0 Graphics and Text

Graphics Approach: Typicals



Panel Approach (Fabrication)

4.0 Graphic Approach

4.4 Panel A

Title:
Blender Pro Medium 135/125

Caption Text:
Blender Pro Medium 18/20

Credit Text:
Blender Pro Medium 8/10

Advanced Organiser:
Blender Pro Bold 52/52

First-level Text:
Melior Medium 34/44

A SCIENCE LAB IN SPACE UN LABORATOIRE SCIENTIFIQUE DANS L'ESPACE



Astronauts spend a large part of their day on the International Space Station working with science experiments.

The Station provides a unique microgravity environment for scientific research. At times, there are over 100 experiments taking place. Astronauts often serve as both researchers and test subjects, working with partners at universities, hospitals, and other institutions worldwide. Their findings have practical applications on Earth and for future space exploration.

Les astronautes de la Station spatiale consacrent une grande partie de leur journée à des expériences scientifiques.

La Station spatiale offre un environnement unique de microgravité pour les recherches scientifiques. Parfois, plus de 100 expériences ont lieu en même temps. Les astronautes sont à la fois des chercheurs et des cobayes, travaillant avec des universités, des hôpitaux et d'autres institutions du monde entier. Leurs travaux ont des applications pratiques sur Terre et pour les futures explorations spatiales.

TYPE A: Interpretive Panel
Scale: 20%
Actual Size: 30" x 40"

SURVIVING IN SPACE SURVIVRE DANS L'ESPACE

The International Space Station makes it possible for astronauts to live and work in space.

Space is a hostile environment. There's no oxygen, no food, and no water. Temperatures shift from extreme heat to rigid cold, and the sun emits high levels of radiation. The International Space Station is a complex life-supporting structure that allows astronauts to overcome these dangers.

Grâce à la Station spatiale internationale, les astronautes peuvent vivre et travailler dans l'espace.

L'espace est un milieu hostile, dépourvu d'oxygène, de nourriture et d'eau. Il est soumis à de très grands écarts de température, allant de la chaleur extrême au froid glacial et les niveaux de rayonnement solaire y sont très élevés. La Station spatiale internationale est une structure complexe habitable qui met les astronautes à l'abri de ces dangers.



Onsite Testing (Summer 2014) – Constructing Prototypes 1



Onsite Testing – Constructing Prototypes 2



Testing Space – Gloves concept



Testing Vibration Isolation (it was cut)



Testing Cont'd



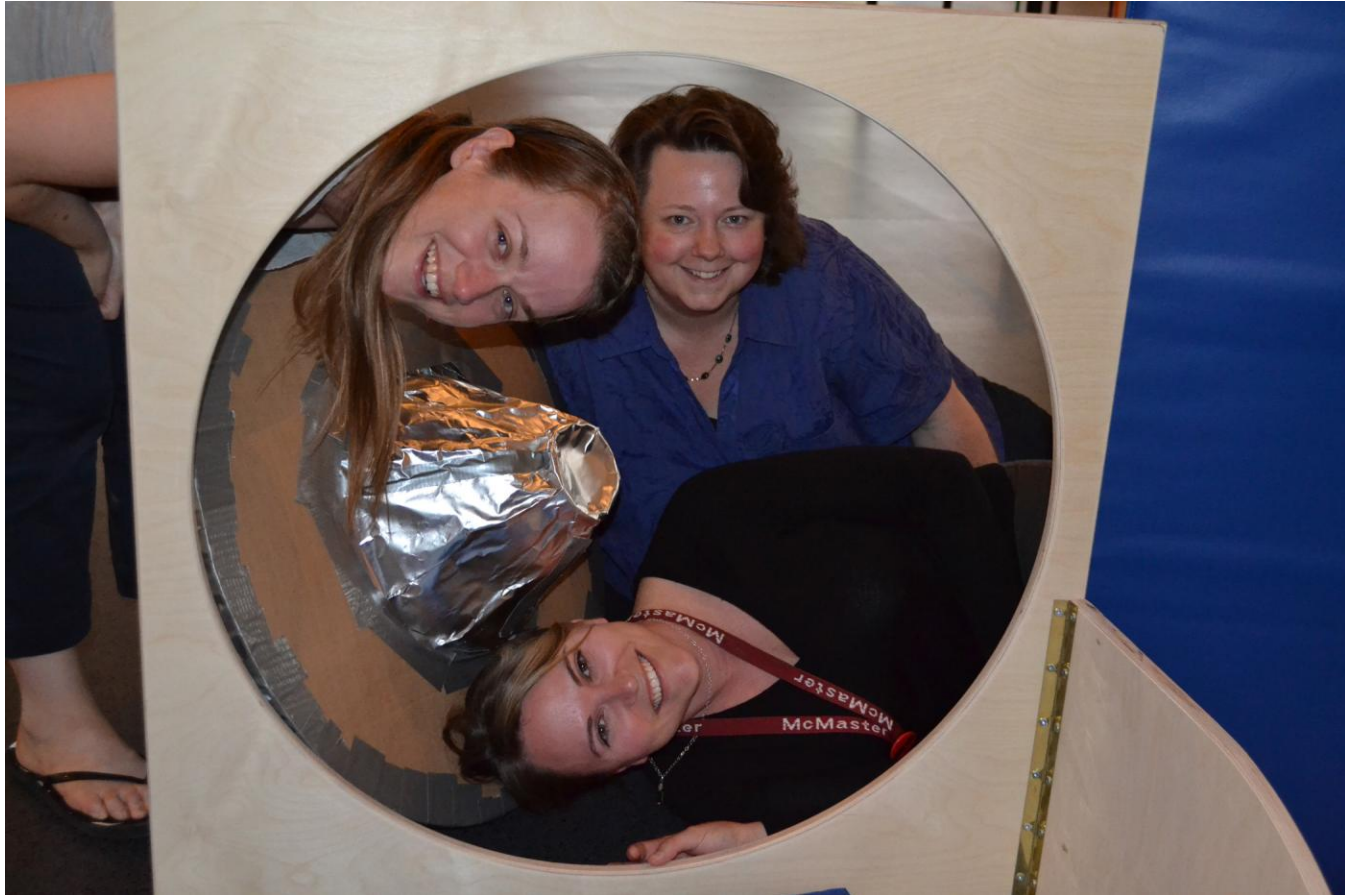
Testing ARED Resistance Concept



Testing Hatch Concept



Enthusiastic Testing Staff



Taylor Group - Exterior (Spring 2015)



View of Shop Floor



Shop Floor (panorama)



Entrance to Creative Workshop



Space Gloves trial at Taylor Group



ARED trial at Taylor Group



Testing Space Helmet mechanism at Taylor Group



Mock-up of Cupola Structure at Taylor Group



Installation - Exterior



Installation – Ready for Install



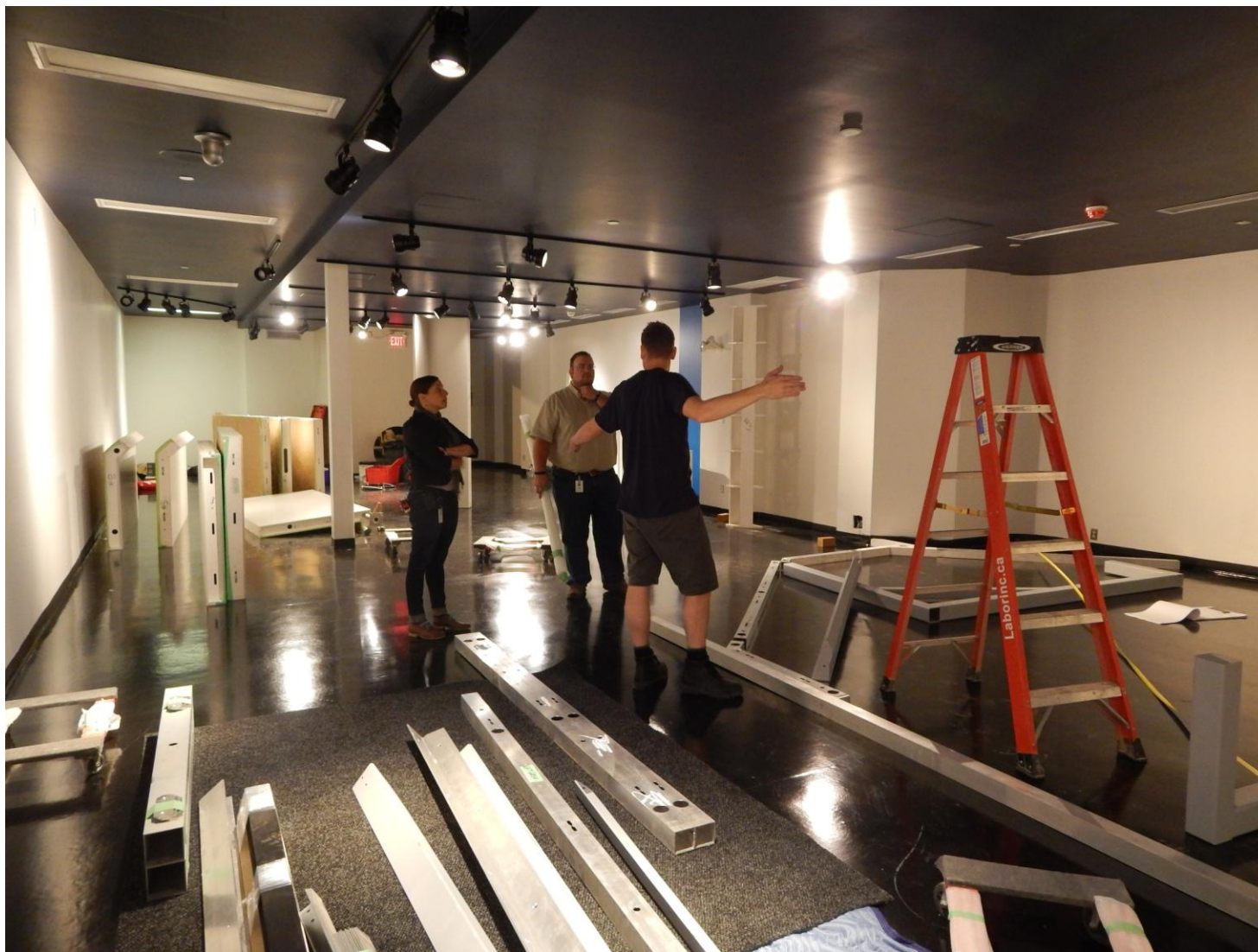
Installation – Hole cut for Hatch



Installing pre-fabricated walls



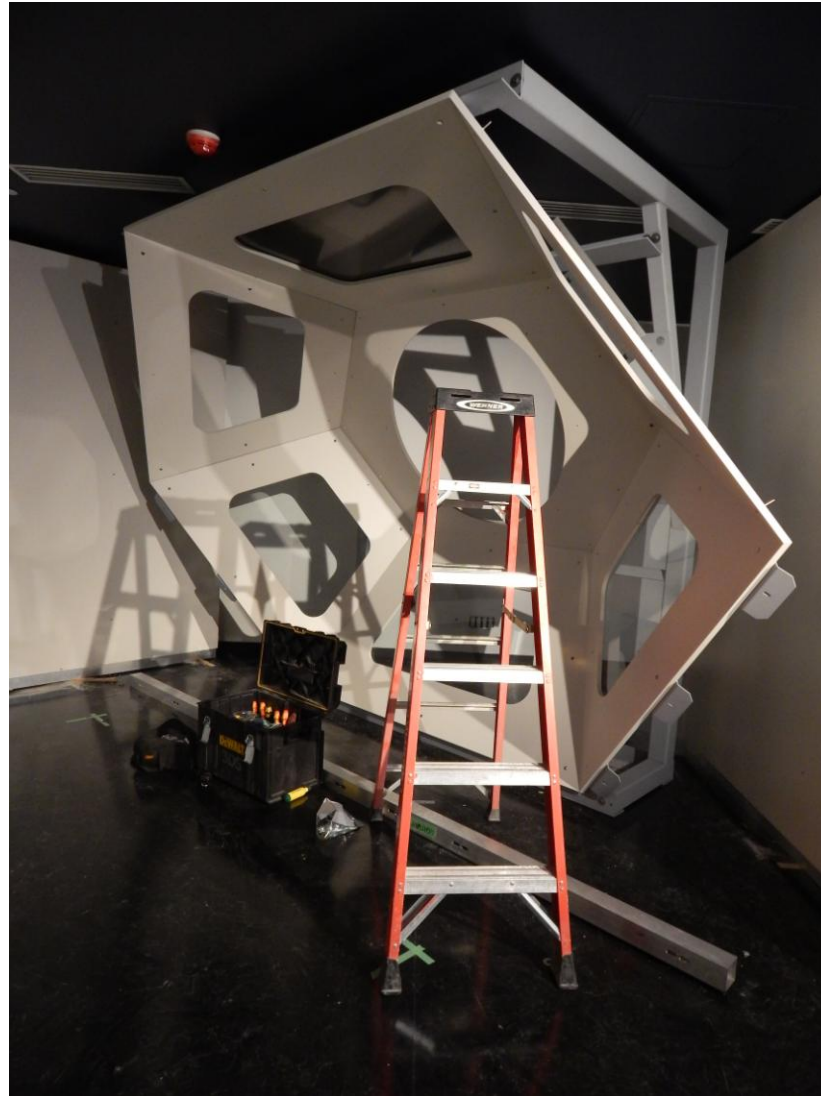
Installation – Work Continues



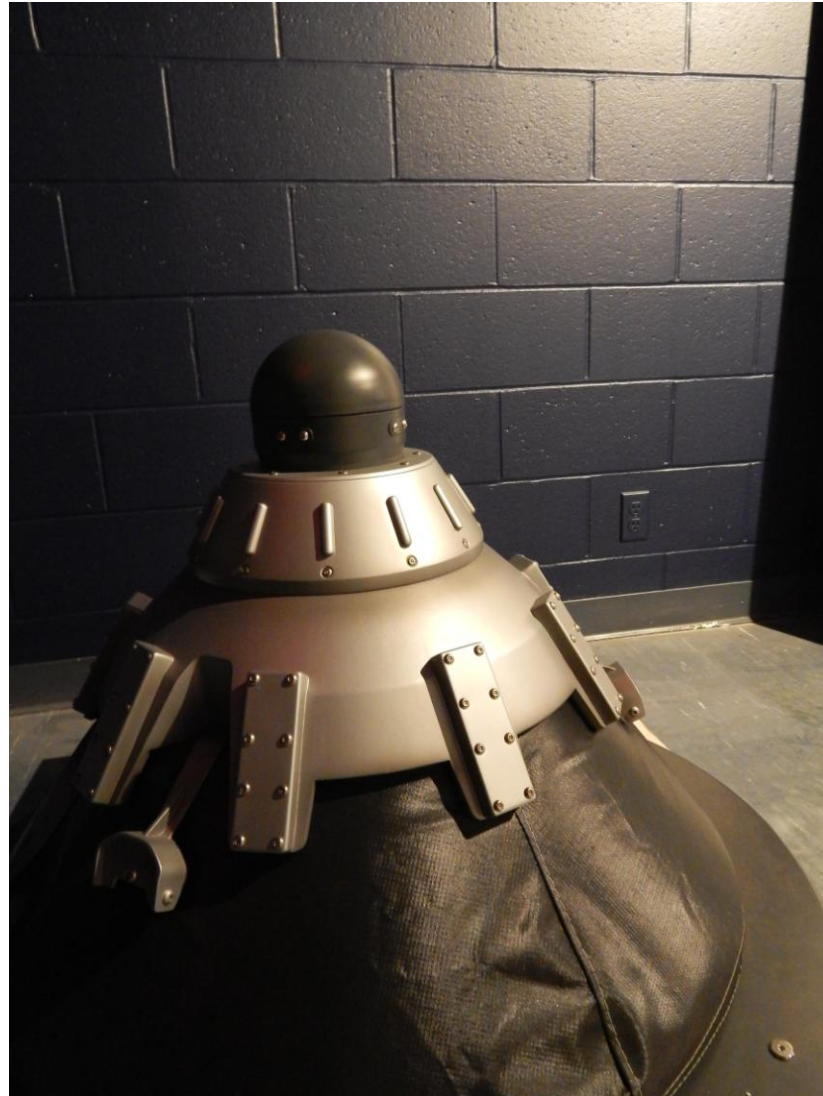
Installing the Cupola Structure



Installation - Cupola Structure 2



Installation – Door for Hatch



Installation – Walls Going Up



Installation Starts in Entrance



Installation – Entrance Cont'd



Installation – Hatch is installed



Installation – Graphics



Installation – Graphics



Installation Cont'd



Sleep Pod Install Ongoing



Installation – EMU Suit



Installation – Nearing Completion



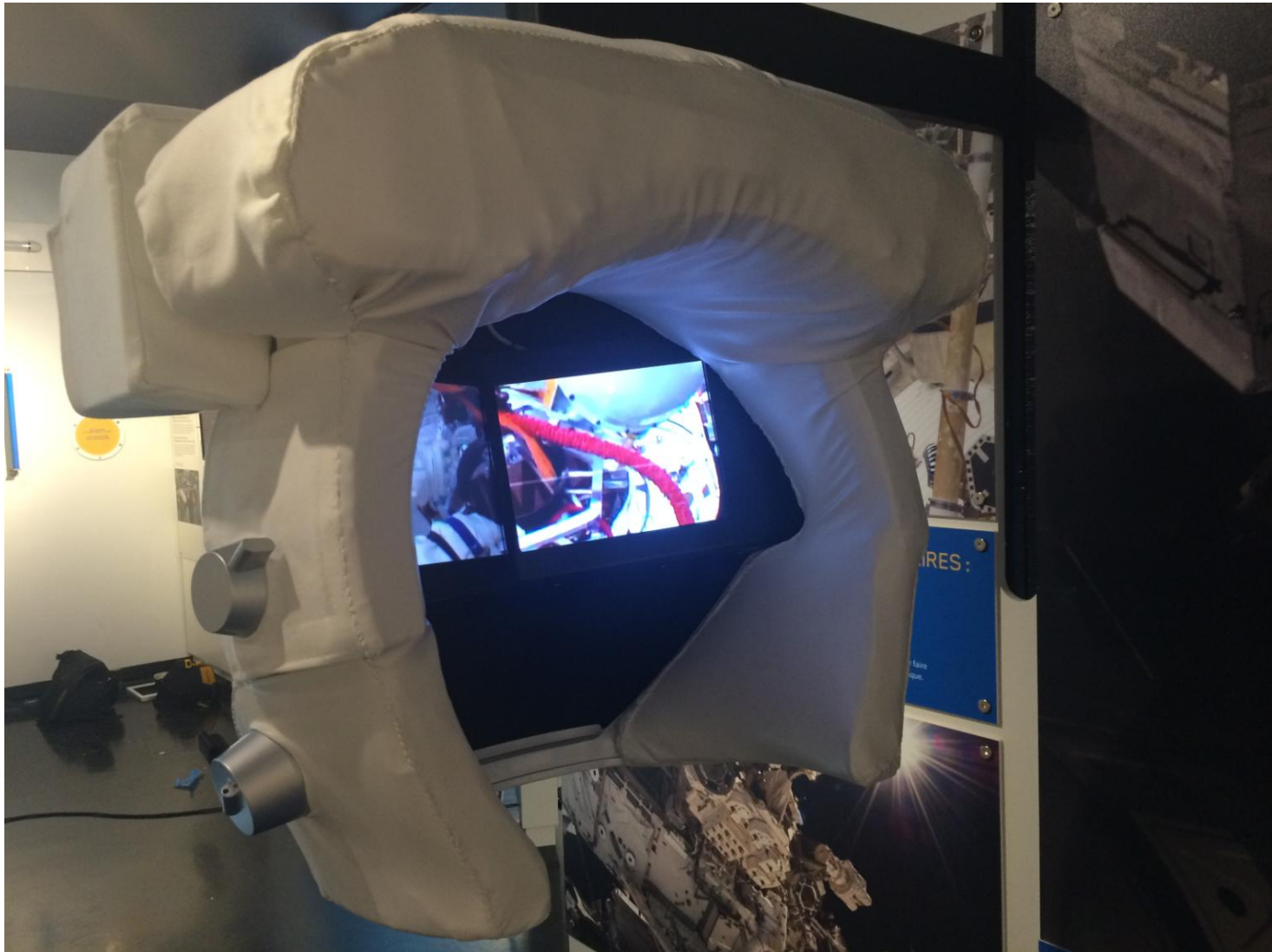
Installation – Nearing Completion 2



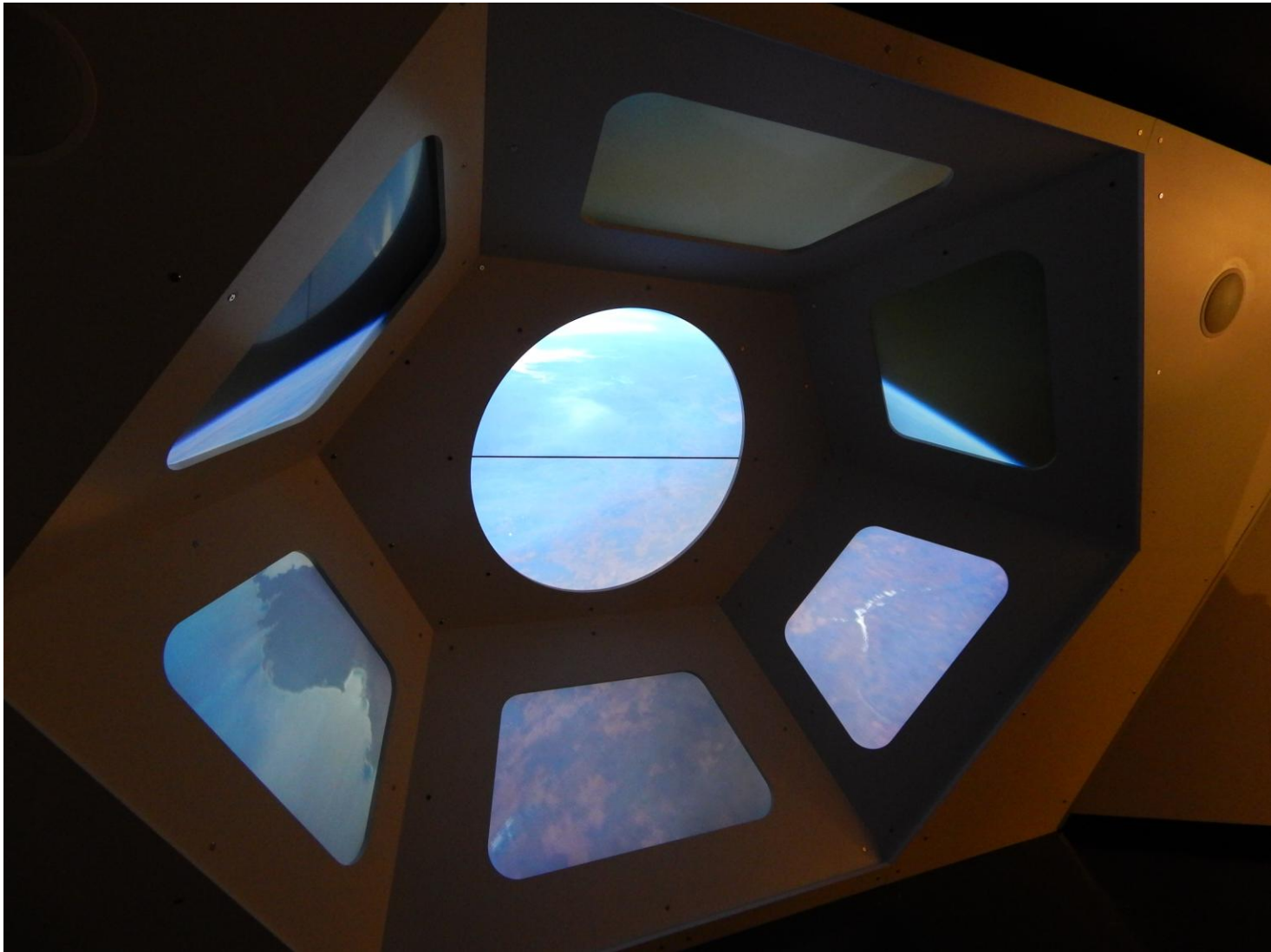
Installation – Space Helmet



Installation – Space Helmet Interior



Installation – The Cupola is Running



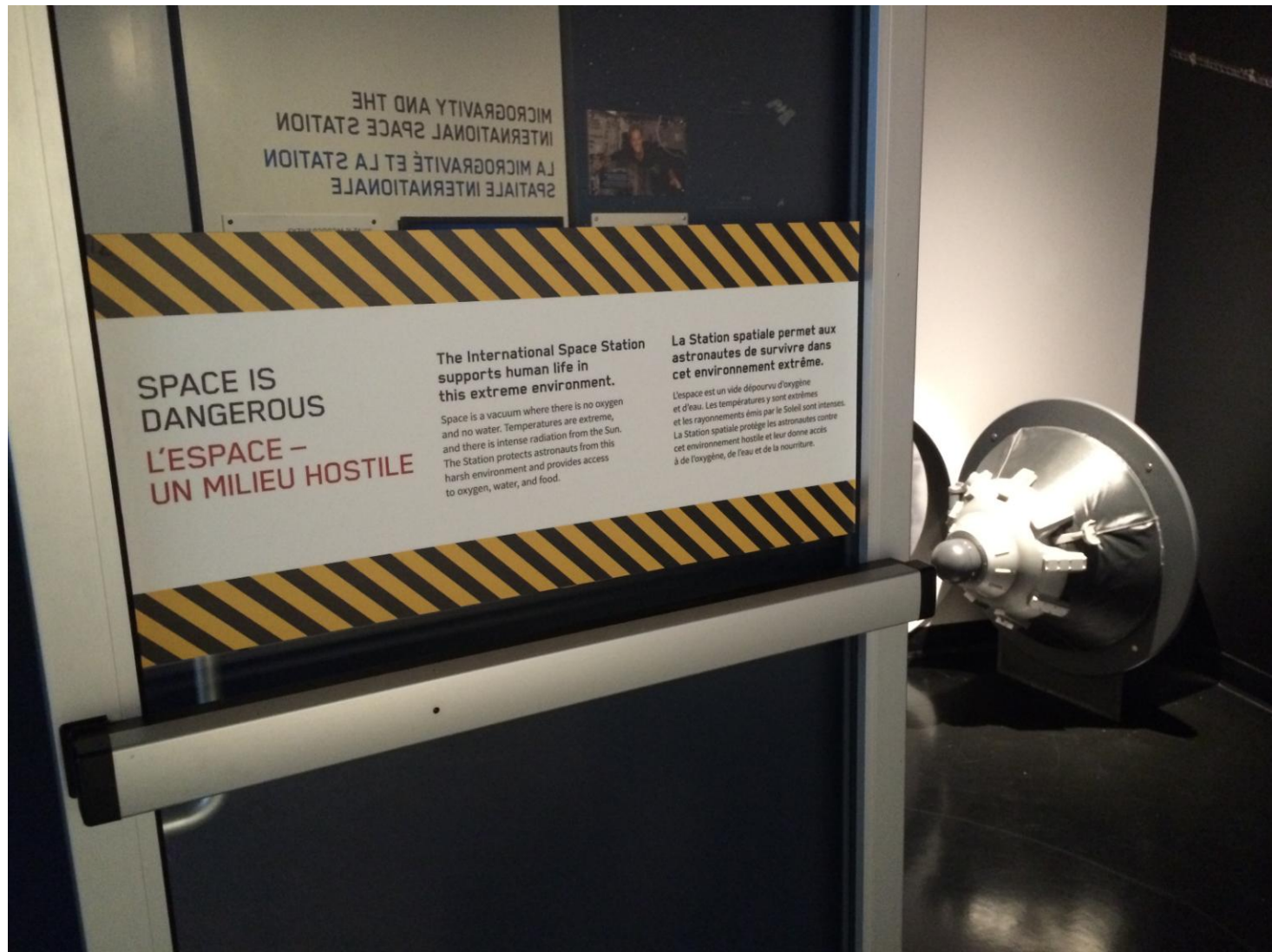
Final Exhibition Installation - Entrance



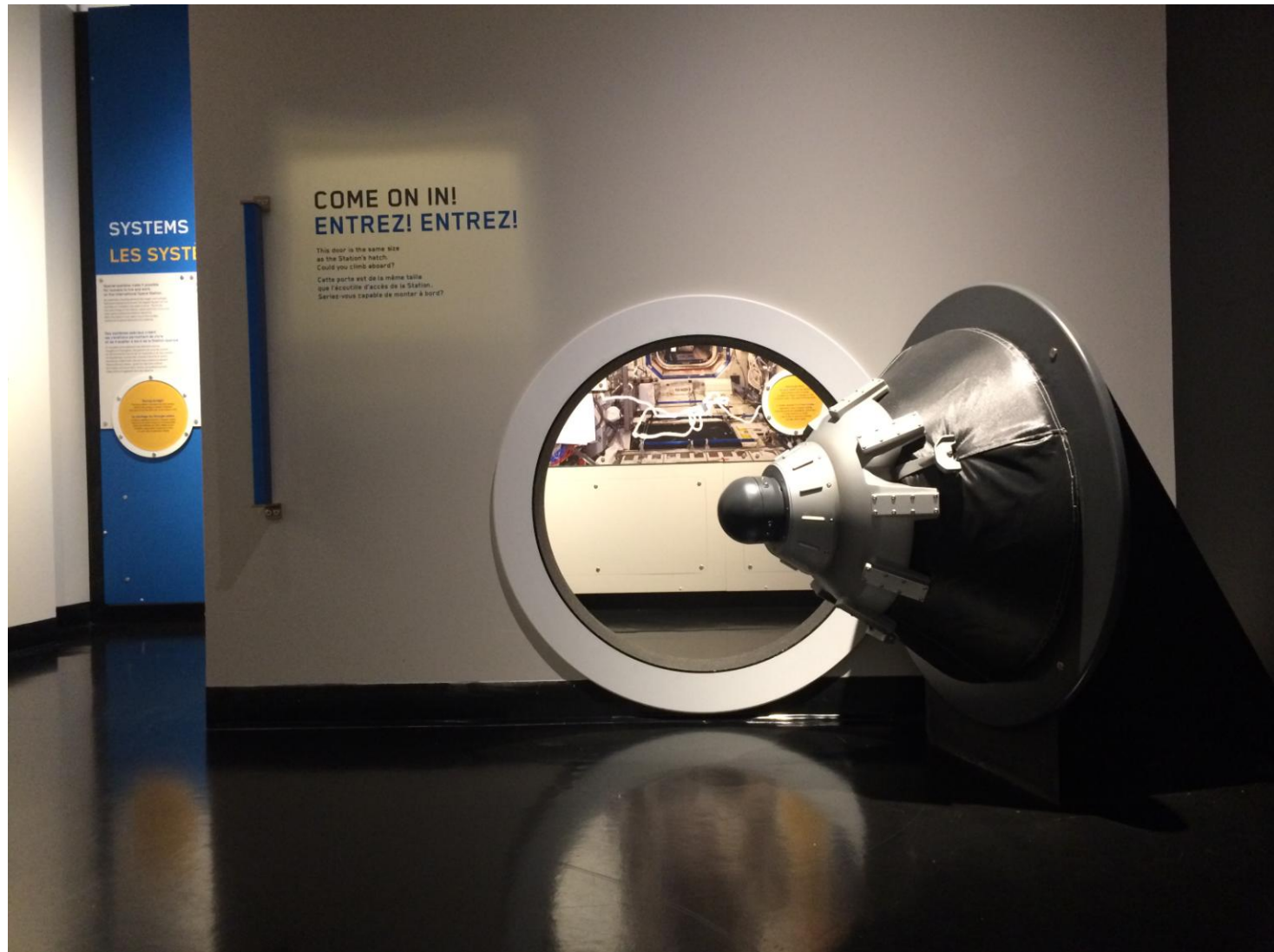
Final Exhibition Installation – Entry (Microgravity)



Final Exhibition Installation – Entry



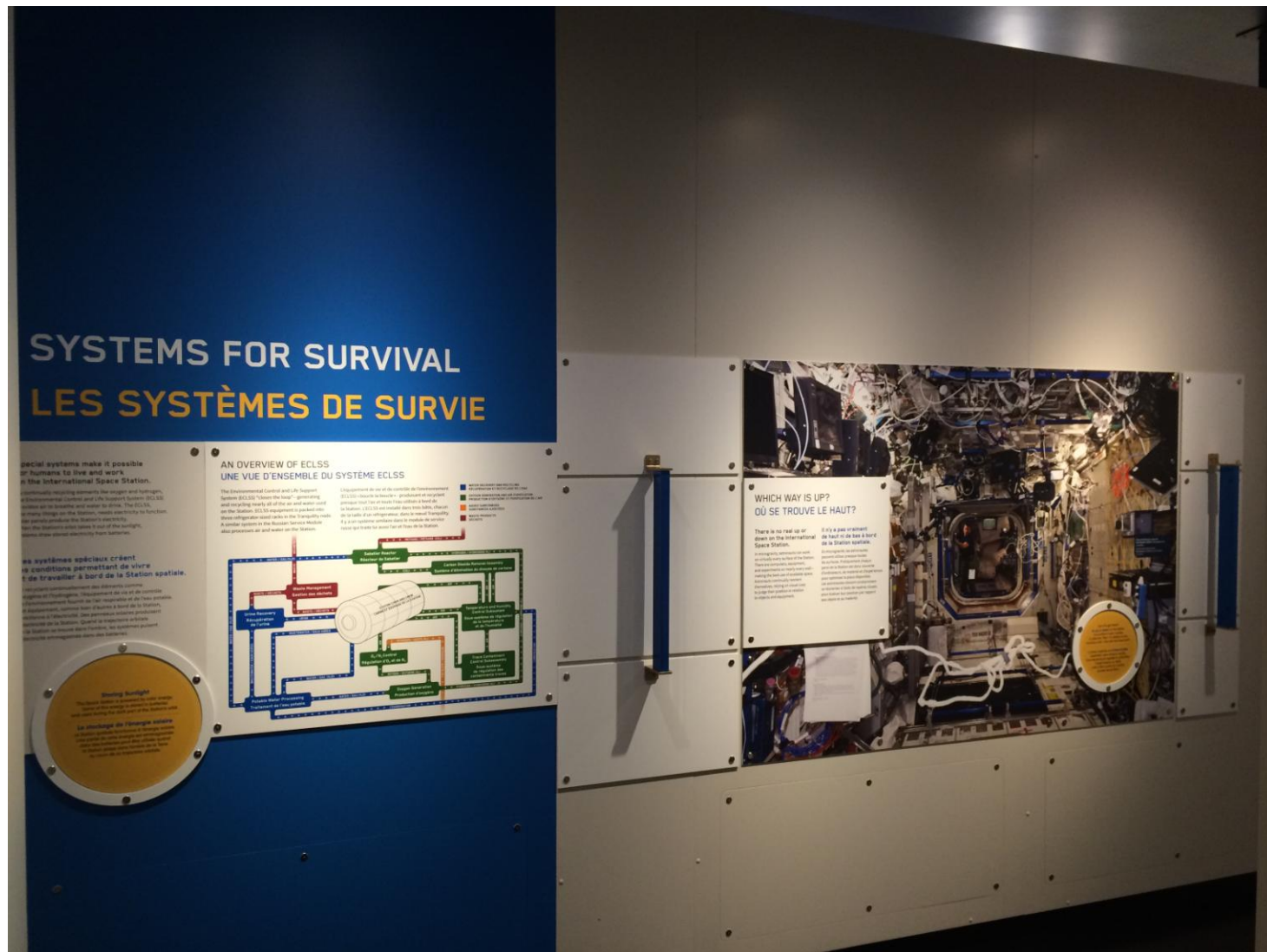
Final Exhibition Installation – Hatch



Final Exhibition Installation – International Program



Final Exhibition Installation – Intro to Systems



Final Exhibition Installation – Cont'd



Final Exhibition Installation – Life's Essentials



Final Exhibition Installation – Sleep Pod



Final Exhibition Installation – Sleep Pod 2



Final Exhibition Installation – Orbital Outhouse



Final Exhibition Installation – Orbital Outhouse 2



Final Exhibition Installation – Water System



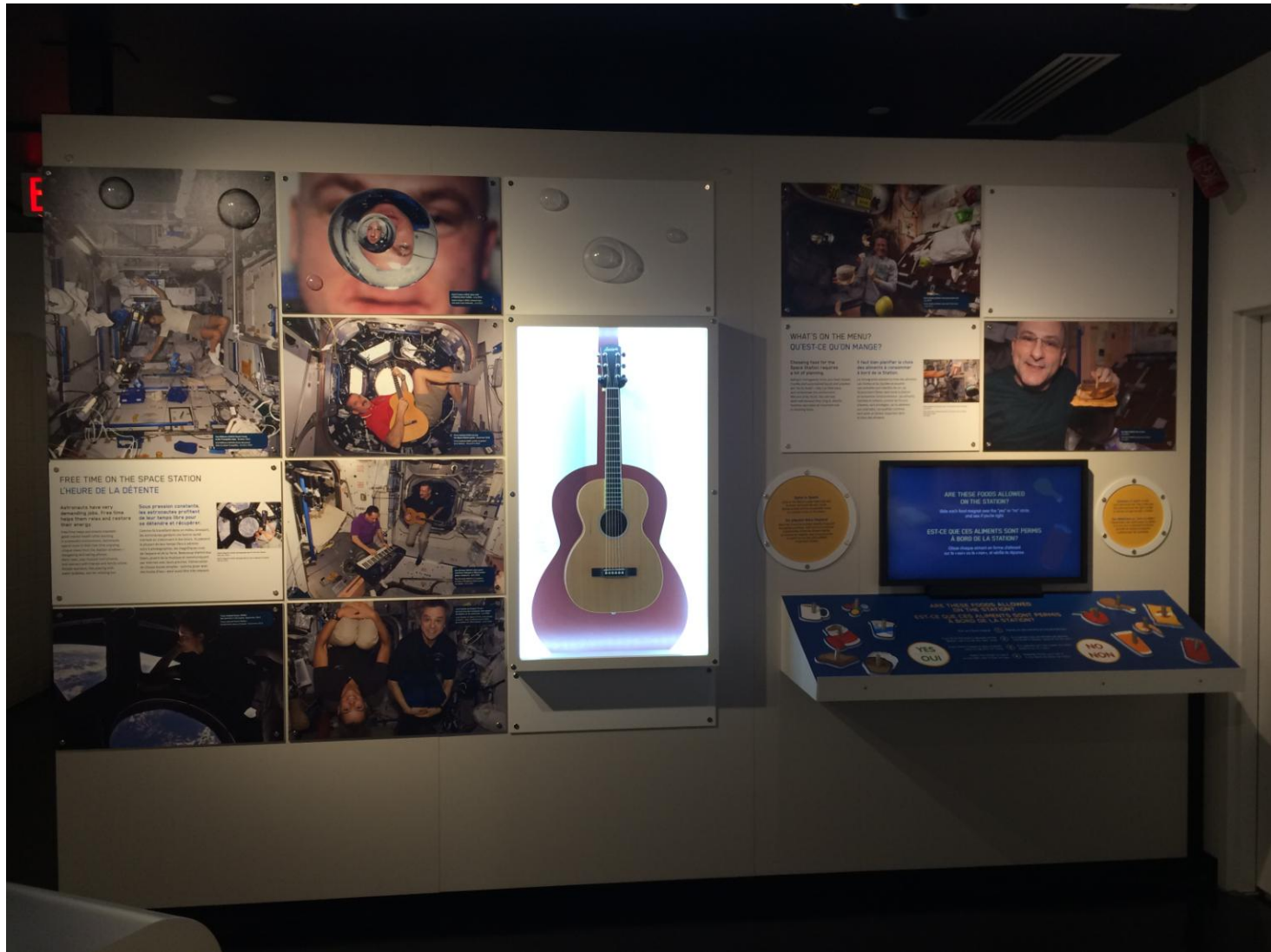
Final Exhibition Installation – Overall View



Final Exhibition Installation – Overall View (panorama)



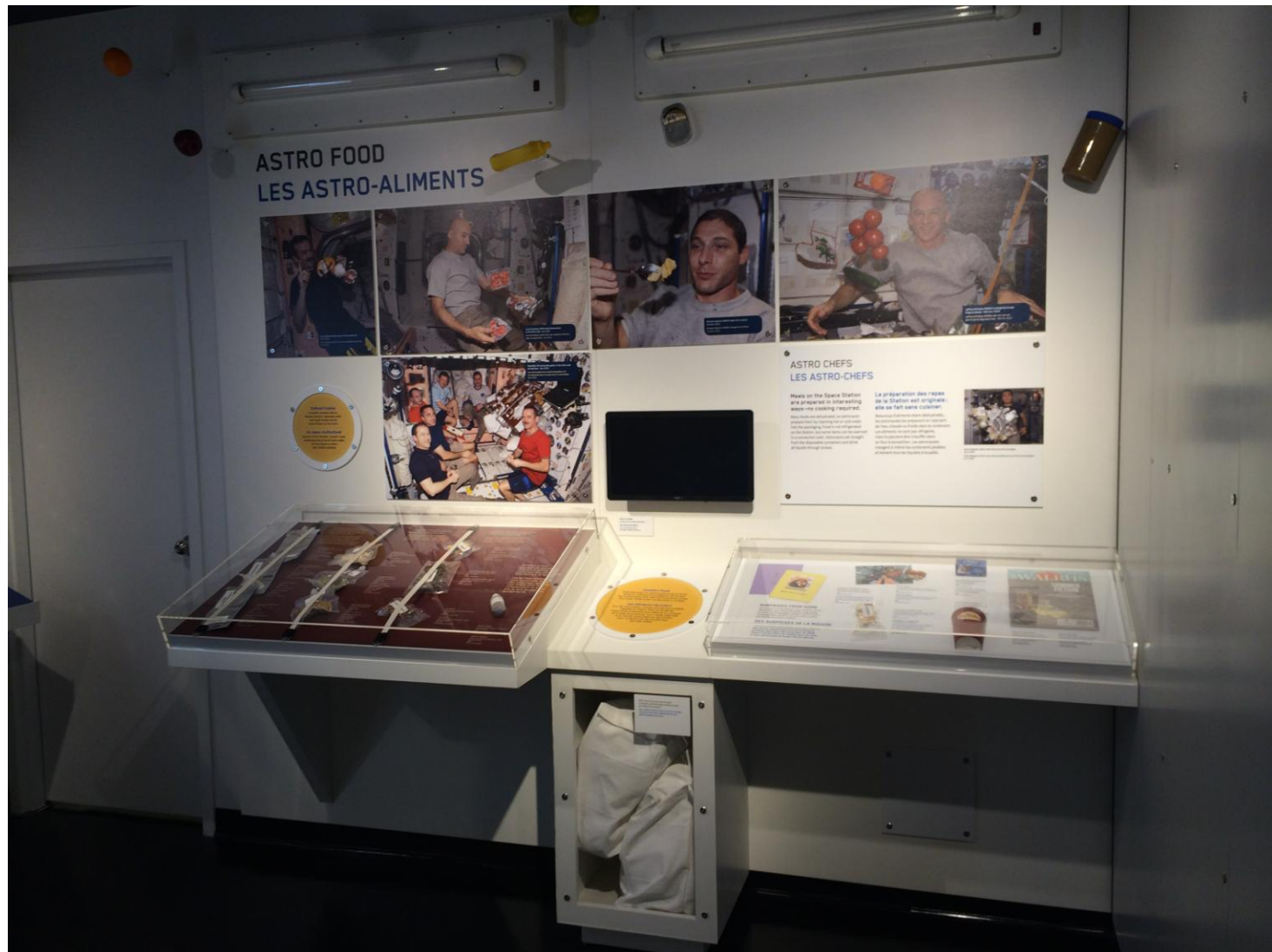
Final Exhibition Installation – Free Time



Final Exhibition Installation – Astronaut Photography



Final Exhibition Installation – Food



Final Exhibition Installation – EMU Suit



Final Exhibition Installation – EMU Suit 2



Final Exhibition Installation – Helmet Interactive



Final Exhibition Installation – Space Gloves



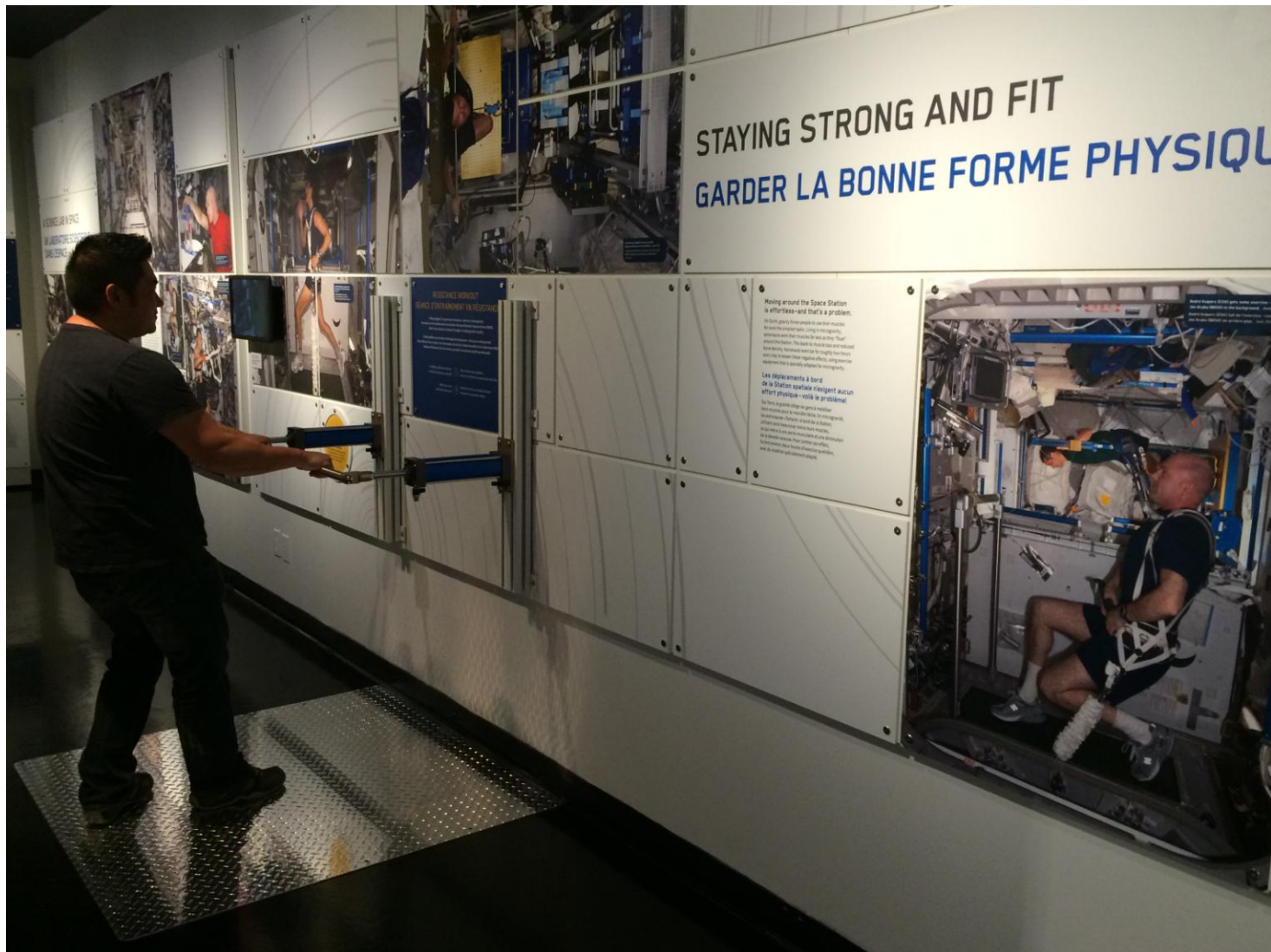
Final Exhibition Installation – Canadarm2 Simulator



Final Exhibition Installation – Bodies in Space



Final Exhibition Installation – Exercise



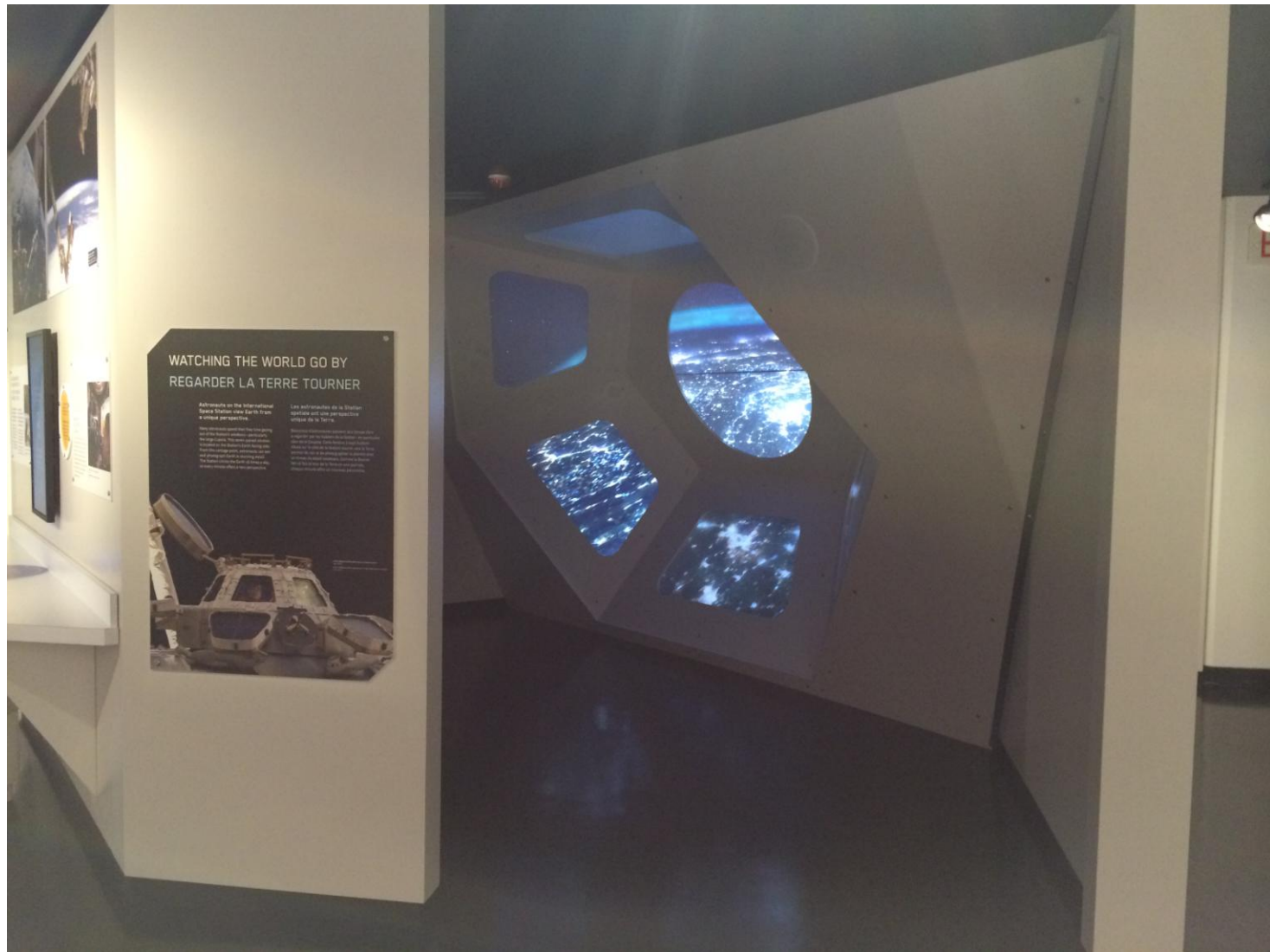
Final Exhibition Installation – Exercise (panorama)



Final Exhibition Installation – Research Projects



Final Exhibition Installation – The Cupola



Exhibition Opening



Exhibition Opening - ARED



Exhibition Opening - Guitar



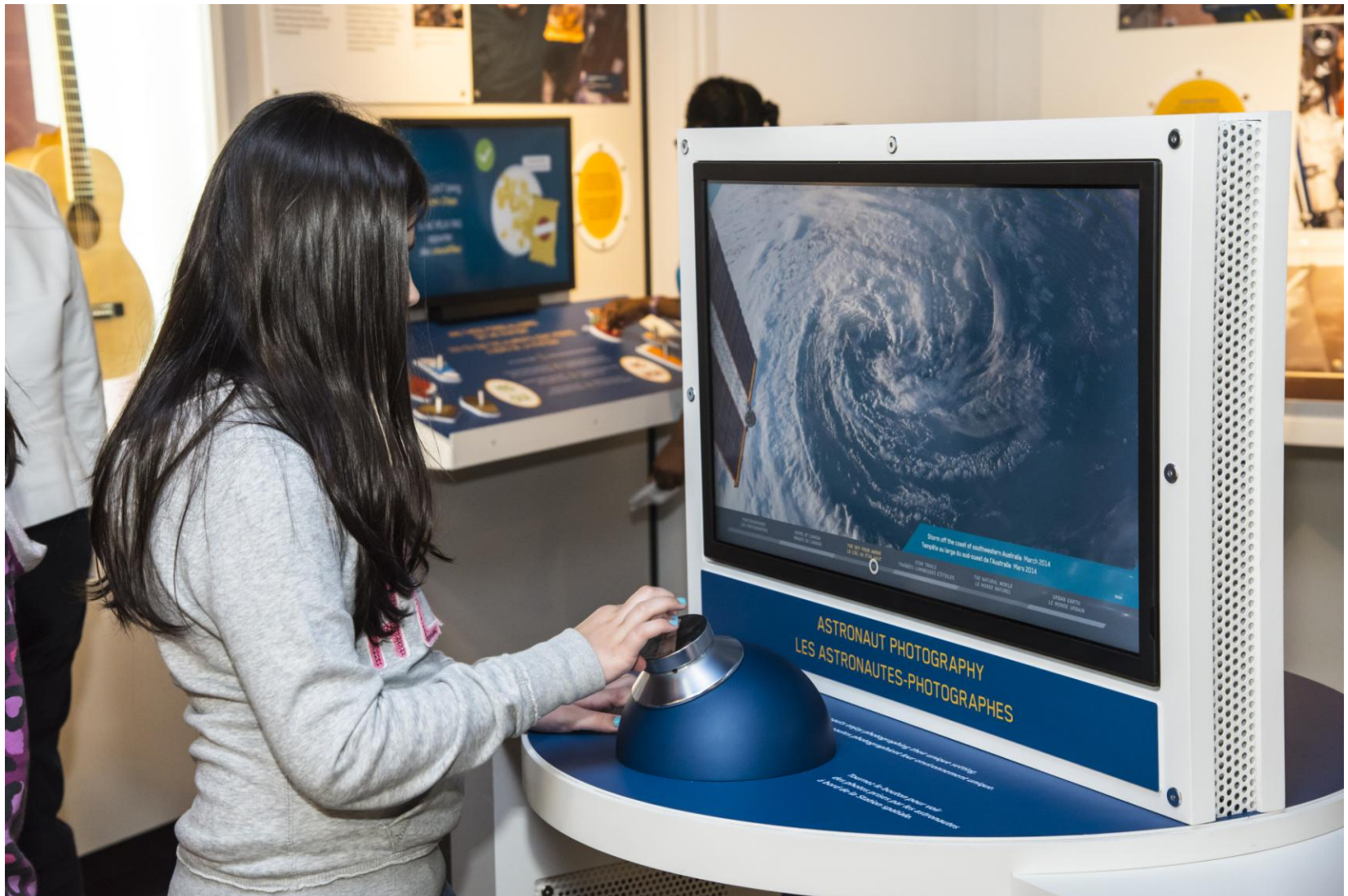
Exhibition Opening – Space Gloves



Exhibition Opening – Canadarm2 Simulator



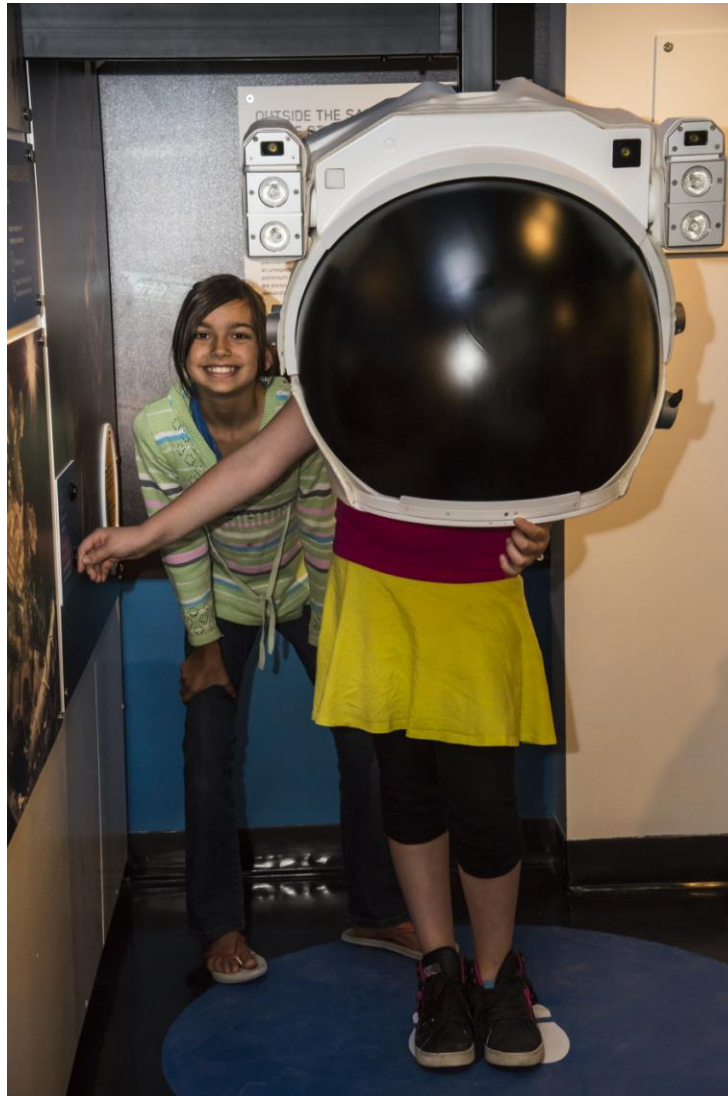
Exhibition Opening – Astronaut Photography – Spin Browser



Exhibition Opening – Food Selections



Exhibition Opening – Helmet Interactive



Exhibition Opening – Wide View

