

This refers to the [FSL](#), one of [ESA's](#) contribution to the [International Space Station](#), for which Prof. Martínez has been scientific advisor from 1986 to 2000.

The FSL is conceived as a standard set of services (mainly optical diagnostics and power/data/video management) to be provided to an experimental fluid volume of say $80 \times 80 \times 80 \text{ mm}^3$ lodged inside a tailored experiment module or cell (EM), inside a FSL-standard experiment container (EC) of $400 \cdot 280 \cdot 270 \text{ mm}^3$, inside the FSL facility core element (FCE) where direct optical diagnostics are available, inside the FSL-rack.

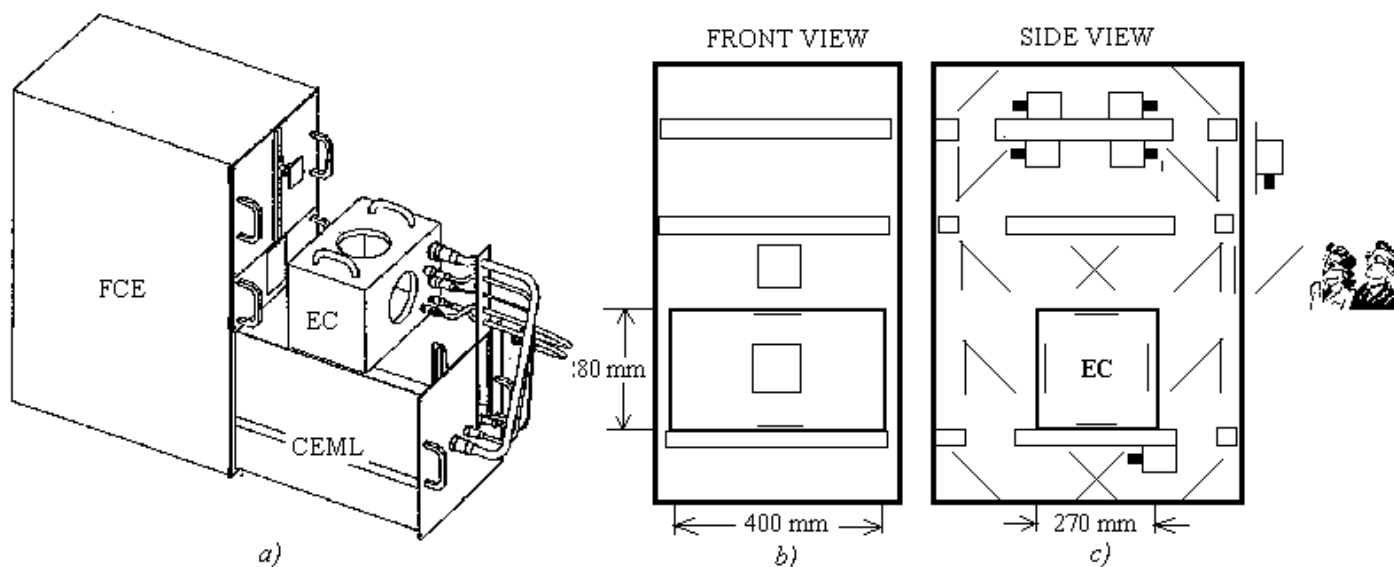


Fig. 1. *a)* A standard experiment container (EC) is manually inserted inside the FCE (CEML slid-out). *b)* Front view sketch of FCE. *c)* Side view of FCE with astronauts looking through. Besides the mechanical fixation and direct optical interfaces shown (circular windows in the EC), the following interfaces are provided by FSL through umbilicals: power in (mains and peltier cooling), data in/out (analogue, RS-422, MIL-1553B), video out (digital, RGB, S-VHF), and water cooling in/out (for more than 50 W of dissipation).