

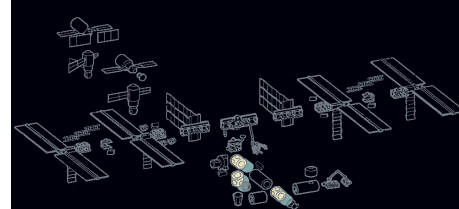
Nodes

Node 1 (Unity), Node 2 (Harmony), Node 3

NASA/Boeing, Alcatel Alenia Space

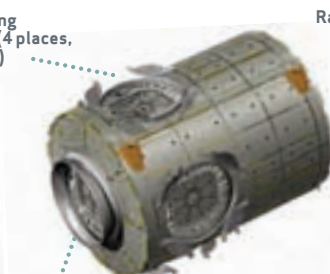
Nodes are U.S. modules that connect the elements of the ISS. Node 1, called Unity, was the first U.S.-built element of the ISS that was launched, and it connects the U.S. and Russian segments of the ISS.

Node 2 will connect the U.S., European, and Japanese laboratories. Node 3, still in development, will provide additional habitation functions, including hygiene and sleeping compartments. Nodes 2 and 3 are slightly longer than Node 1.



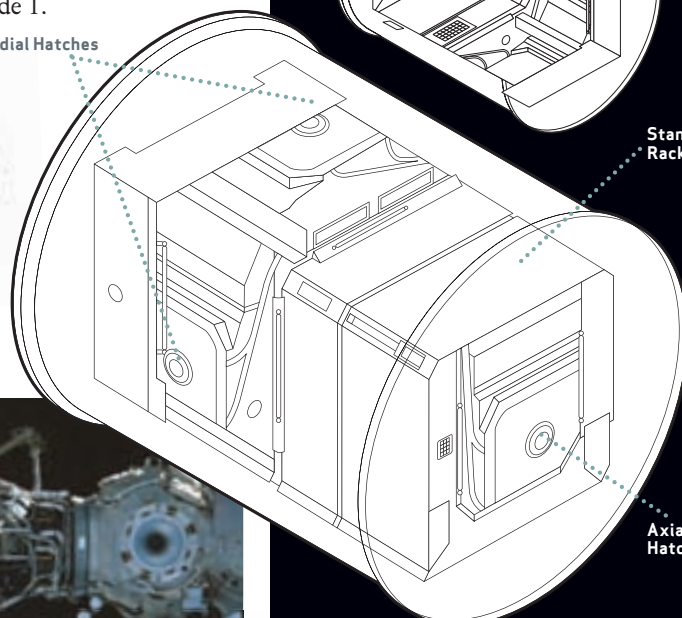
Interior view of Node 1.

Radial Common Berthing Mechanism and Hatch (4 places, with 50-in hatch width)



Axial Common Berthing Mechanism and Hatch (2, one on each end)

Radial Hatches



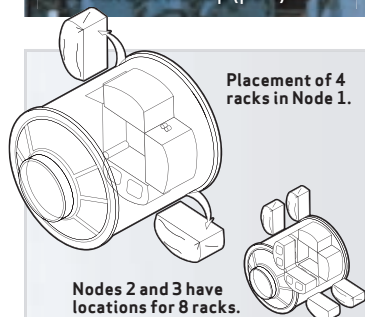
Interior of Node 1 deck (port and aft shown).

Standard Rack Bays

Axial Hatches



Node 1 is shown with the Russian segment FGB to the right (aft), the U.S. Lab to the left (fore), the U.S. Airlock at the bottom (starboard), and PMA 3 at the top (port).



Placement of 4 racks in Node 1.

Node 1 shown shortly after deployment in orbit. PMA 2 is to the left.

from the truss structure and the U.S. Laboratory to the ESA Columbus Lab and Japanese JEM lab.

NODE 3 will provide additional space for crew habitation as well as environmental control and life support systems. It will be attached to the nadir (Earth-facing) radial port of Node 1. Node 3 will provide an attachment point for a PMA, to which the Space Shuttle or CEV can dock. The Cupola will be berthed on Node 3's forward port. Additional ports are available for further ISS additions.

NODE 1's six ports provide berthing connections to the Z1 Truss, U.S. Lab Module, Airlock, Node 3, and the PMAs. The Multi-Purpose Logistics Module (MPLM) logistics carriers are berthed at Node 1 during some Shuttle visits.

NODE 2 is a "utility hub," providing air, electrical power, water, and other systems essential to support life on the ISS. It distributes resources

Interior of Node 1 (ceiling, port, and forward endcone shown).

Length of Node 1	5.5 m (18 ft)
Node 2, 3	6.1 m (21 ft)
Width (diameter)	4.3 m (14 ft)
Mass of Node 1	11,895 kg (26,225 lb)
Node 2	13,508 kg (29,781 lb)
Node 3	12,471 kg (27,494 lb)
Exterior	Aluminum cylindrical sections, 2 endcones
Number of racks for Node 1	4
Node 2-3	8
Node 1 launch date	Dec. 1998, ISS-2A, STS-88