

# ESA's Columbus science laboratory

After 25 years in the making, the European Space Agency's \$2 billion laboratory is set for launch to the International Space Station. Once operational, Europe's first permanent base in space is expected to double the research capacity of the ISS

## COLUMBUS LABORATORY

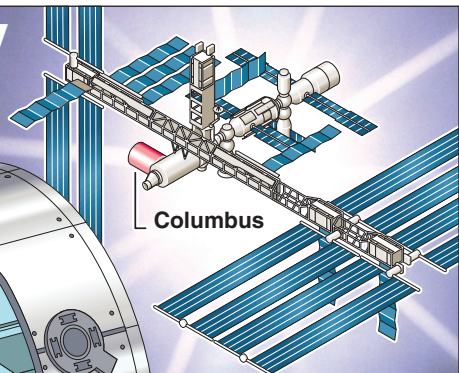
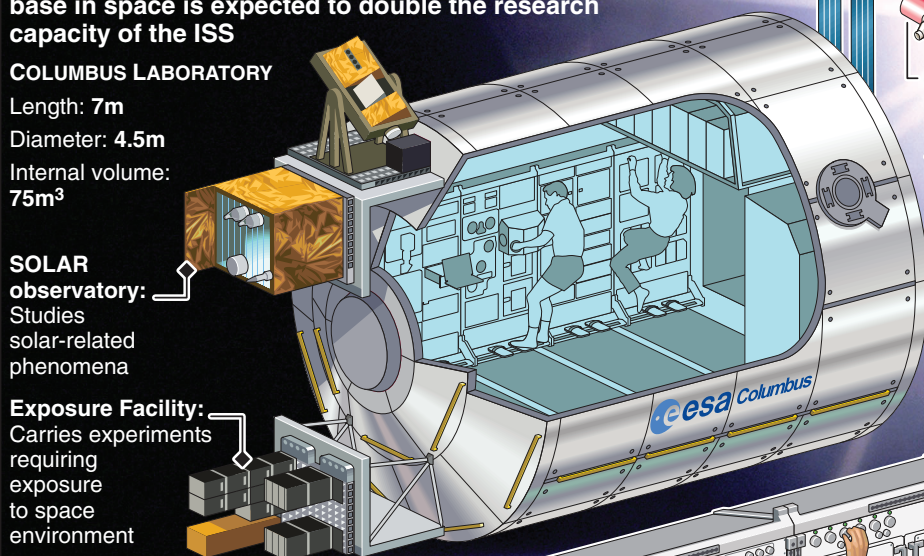
Length: 7m

Diameter: 4.5m

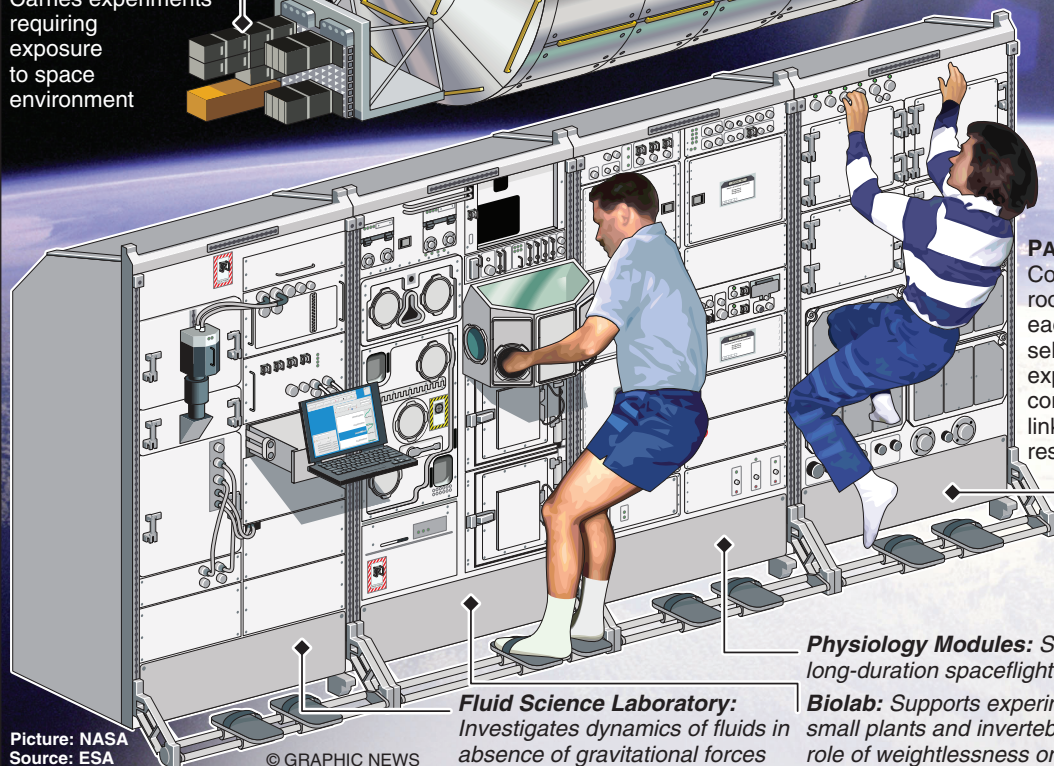
Internal volume:  
75m<sup>3</sup>

**SOLAR observatory:**  
Studies solar-related phenomena

**Exposure Facility:**  
Carries experiments requiring exposure to space environment



Columbus



**PAYLOAD RACKS**  
Columbus has room for ten racks, each housing self-contained experiment with communication links to earthbound researchers

**Drawer Rack:**  
Flexible carrier system for large variety of scientific experiments

**Physiology Modules:** Study effects of long-duration spaceflight on human body

**Fluid Science Laboratory:**  
Investigates dynamics of fluids in absence of gravitational forces

**Biolab:** Supports experiments on cells, small plants and invertebrates to identify role of weightlessness on organisms