International Space Station (ISS)

The largest man-made orbiting structure has more than 20 years of history.

**Milestones in the evolutions of ISS**

- **11.20.1998 > Zarya ("sunrise")** or FGB (Functional Cargo Block) was the first component launched for the ISS. It was funded by the USA and made in Russia. It provided electrical power, storage, propulsion and guidance to the station during the initial assembly stage. It is now used for storage.

- **07.12.2000 > Zvezda** is the first Russian contribution, and the cornerstone of the human living quarters. Homes, workstations, life support systems, electrical energy distribution, data processing systems, flight control systems and propulsion systems.

- **02.07.2001 > Destiny** is the research laboratory. It supports studies and experiments to improve the health, safety and quality of life of humans. It offers a unique opportunity to test physical processes in weightlessness. With internal interfaces, it contains equipment frames for housing and controlling ISS systems and research.

- **05.01.2006 > Columbus** is a pressurised lab linked to Harmony. It allows research to be carried out in a weightless environment. Experiments and applications can be performed inside the module, in the vacuum of space, thanks to four external mounting platforms that can accommodate external loads. Columbus is ESA’s greatest contribution.

- **09.21.2006 > Kibo** is modules designed by Japan for scientific research in orbit, offering educational, cultural and commercial opportunities.

- **02.08.2010 > Tranquility + Cupola** is the service centre that provides air, electric power, water and other essential systems in order to sustain life on the station. Harmony also helps increase living and working space.

- **Did you know...?**

  Thanks to its privileged view of the Earth and celestial bodies, the Cupola has scientific applications in the fields of Earth Observation and Space Sciences, while also providing great psychological benefits for the crew.

**An example of international political, scientific and technological collaboration**

The International Space Station (ISS) is a joint project involving five space agencies: NASA (USA), Roscosmos (Russia), ESA (Europe), JAXA (Japan) and CSA (Canada). The station is divided into two sections: the Russian segment, made up of components built in Russia and operated by Roscosmos, and the USA segment, shared by the remaining space agencies: NASA, ESA, JAXA and CSA.

Since 1998, 16 countries have participated in the construction of the ISS: the United States, Russia, Canada, Brazil, Japan, France, Germany, Spain, Italy, the Netherlands, Norway, Belgium, Denmark, Sweden, Switzerland and the United Kingdom.

**Did you know...?**

**The station circles Earth at 28,000 km per hour. It makes a full orbit of Earth every 90 minutes.**

**Space for visitors?**

Visitors attach their sleeping bag to the wall of a common area, as they do not have their own module.

**Crew facilities**

- 6 bedrooms (which have a lamp, shelf and desk)
- 2 bathrooms (designed by Russia, with a waste suction system; crew must wear a safety belt to use them). Crew use a mechanical hose, wet towels and soap pastes to clean themselves.
- 1 gym

**A curious fact**

The crew members aboard the ISS experience 15 sunrises/sunsets every day.

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