

Paolo Nespoli returns to Earth!



Paolo's back!
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ESA astronaut Paolo Nespoli is now safely back on Earth, after spending an incredible 139 days in space! Paolo has been living and working onboard the International Space Station, but his mission was coming to an end so it was time for him to return.

Paolo plunged back to Earth inside a Soyuz spacecraft. He was joined by fellow astronauts Randy Bresnik from NASA, and Sergei Ryazansky from Russia's space agency, Roscosmos. The ride lasted three hours, during which time they had to slow down from their starting speed of 28,800 km/h – 10 times faster than a speeding bullet!



Soyuz MS-05 crew
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Hurting through Earth's atmosphere challenged the Soyuz spacecraft, and the three space explorers inside it. The heatshield reached a scorching 1600°C during re-entry, and the astronauts were jammed into their seats by the huge forces. Parachutes were used to slow the Soyuz, and special rockets helped it to brake just a few metres before touchdown. Paolo travelled from space to Earth in 2011, and back then he described the re-entry like this: "The so-called soft landing feels like a head-on collision between a truck and a small car – and you are in the small car!"

Paolo has now completed three missions to the International Space Station, spending a grand total of 313 days in space. This latest mission is called Vita, which stands for Vitality, Innovation, Technology and Ability. Paolo's body was studied carefully to see how it would adapt to life in space. His eyes, sleeping patterns, and eating habits were monitored to learn more about how the human body changes. This will help prepare future human missions into space.



Mobile upgrade
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There were lots of tasks to keep Paolo busy. He used remote control to instruct a human-looking robot in Germany to repair damaged solar panels across a pretend Mars landscape, showing how astronauts and robots will work together on future planetary missions. Paolo also tested special glasses that display instructions during complex tasks. Paolo even used a robotic arm to help two other spacecraft to dock with the International Space Station.

The next ESA astronaut to travel to the Station will be Alexander Gerst, scheduled for launch next summer. Would you like to travel into space and conduct exciting experiments?

Cool fact: During his five-month mission, Paolo orbited Earth 2224 times, flew through 35,000 sunrises and sunsets, and travelled 94 million kilometres!