

LISA Pathfinder mission launched!

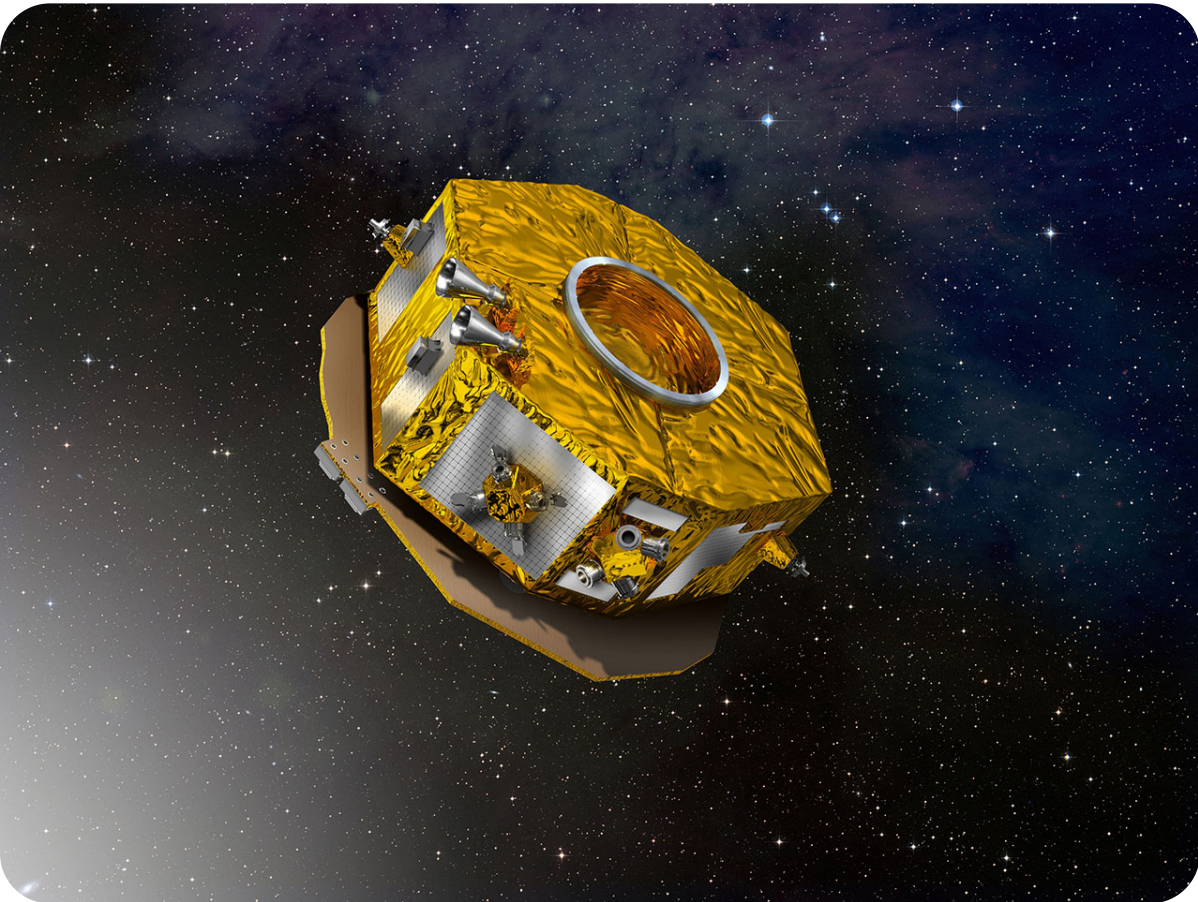


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ESA's high-tech LISA Pathfinder mission lifted off earlier today from Europe's spaceport in Kourou, French Guiana. Using a powerful Vega rocket to blast LISA Pathfinder into space, the mission has had an excellent start!

LISA Pathfinder will investigate the force that stops us from floating into space: gravity. 100 years ago the famous scientist Albert Einstein wrote his general theory of relativity, which is our best attempt at understanding how gravity works. LISA Pathfinder will test this theory by using incredibly sensitive instruments to detect tiny ripples in space.



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On board LISA Pathfinder are two identical cubes made from gold-platinum. They will be floating within the spacecraft, and not actually touching it. Lasers bouncing between the cubes will measure their exact positions to a billionth of a millimetre! This will allow scientists to work out how gravity is acting on them.

Although the mission has now launched, it will take another 10 weeks for it to move into the best location. Then, after final checks, it will begin six months of amazingly precise observations that may change our understanding of gravity.

ESA scientists are planning ahead and hope to launch a follow-up mission, called eLISA, in the year 2034. This will continue LISA Pathfinder's mission, and help us to understand gravity better than ever before.

Cool fact: LISA Pathfinder has tiny thrusters that can fire 10 times a second to stop the spacecraft from touching the gold-platinum cubes.