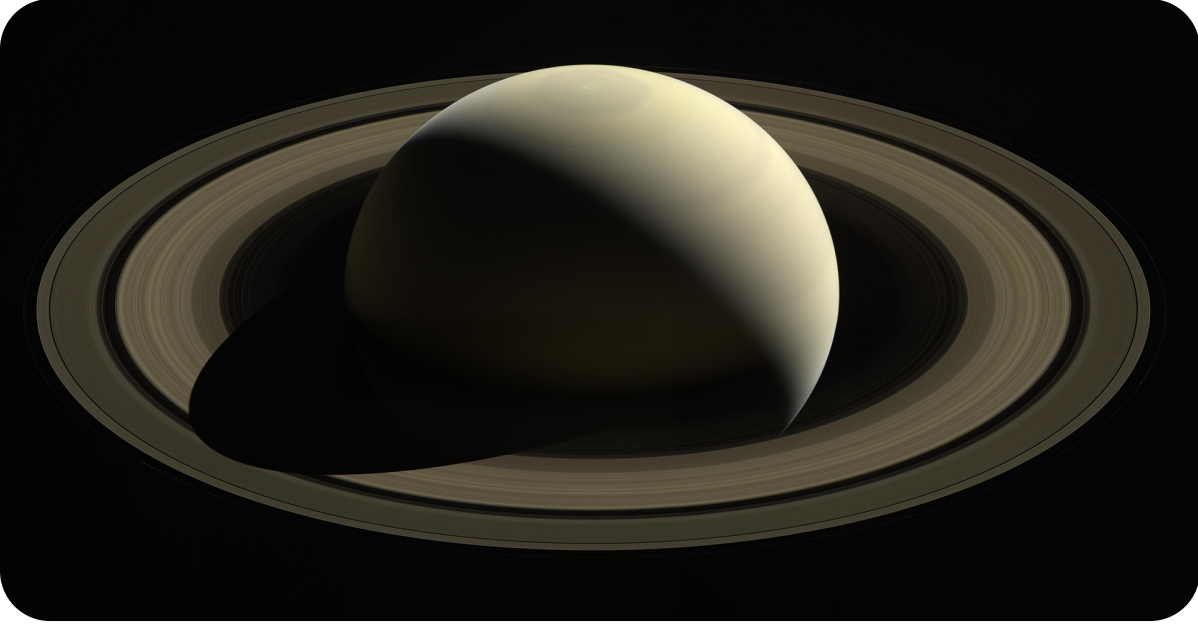


Cassini plunges into Saturn’s atmosphere!



The ringed planet Saturn is sometimes called “the jewel of the Solar System” because it is so beautiful
[Access the image](#)

15 September 2017

The space probe Cassini has finished its mission investigating Saturn and its moons! The robot explorer dived into Saturn’s atmosphere, destroying the probe and giving it an amazing finish.

Cassini has been touring Saturn and its moons for the last 13 years. But its fuel supply was running out, meaning that mission scientists would not be able to control it for much longer. If Cassini were left to hurtle thorough space, it could have crashed into one of Saturn’s moons, such as icy Enceladus. This would be bad news, as tough microbes from Earth may have hitched a ride on Cassini, and could then be left on the moon. When future scientists explore these moons for signs of life, it would be very confusing if microbes from Earth were there!



The Cassini probe would have looked like this as it got closer to Saturn
[Access the image](#)

Once it was decided to finish Cassini’s mission by destroying it, scientists realised they could take more risks with the robotic explorer. Cassini has spent the last five months diving between Saturn and its rings, in dangerous moves to take photos and gather data. These final orbits were carefully monitored by ESA stations on Earth.

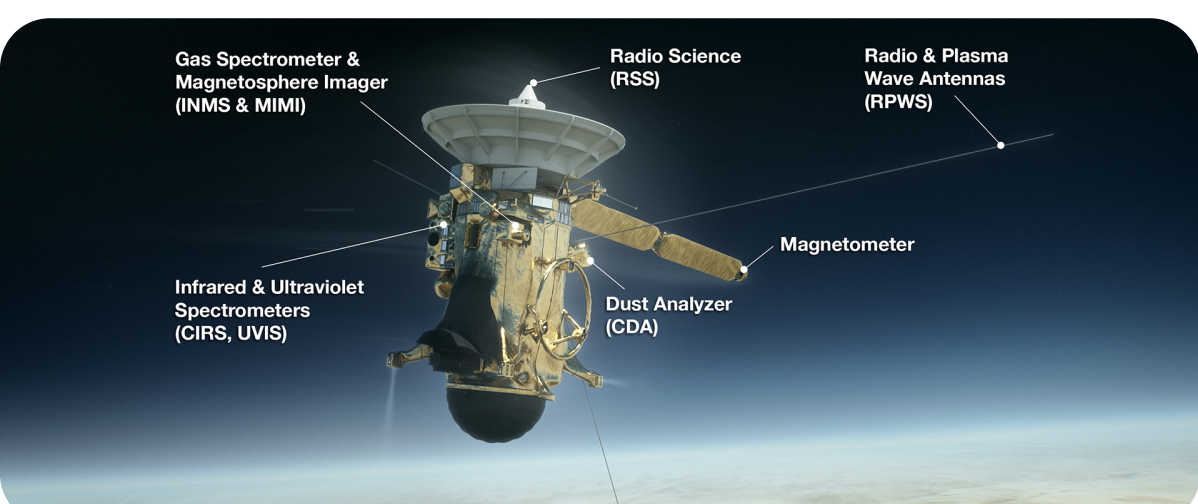
Cassini entered Saturn’s atmosphere about a minute before its signal was lost. The spacecraft kept sending data back to Earth for as long as it could, sending photos and measuring magnetic fields, temperatures, and checking what the atmosphere around the probe was made from. Scientists will be kept busy studying the results!



Artist’s impression of Cassini hurtling toward Saturn
[Access the image](#)

Cassini has helped to make lots of discoveries over its lifetime. Soon after it arrived at Saturn it fired a smaller probe designed by ESA, called Huygens, toward Saturn’s moon Titan. Huygens landed on Titan and discovered that it is a lot like Earth was a long time in the past, before life developed here.

Cassini then visited other moons of Saturn, such as Iapetus, which has a big bump all around its middle; Hyperion, which looks like a giant sponge; and Mimas, which has a giant crater that makes it look a lot like the Death Star from Star Wars!



Eight of Cassini’s scientific instruments were used during its grand finale
[Access the image](#)

Perhaps the most exciting discoveries were made about the moon Enceladus. Cassini found icy water being blasted out from cracks on the surface, hinting that there is a hidden underground ocean. Scientists have studied this water, and think that the ocean could have chemicals and energy needed for simple forms of life! A future mission could find out for sure. Mission planners are already preparing the next generation of robotic explorers. ESA is getting ready to launch the Jupiter Icy Moons Orbiter (or JUICE for short!) in the year 2022. It will explore three of Jupiter’s moons, called Europa, Ganymede, and Callisto.

Which planet or moon in the Solar System would you most like to send a probe to? What do you think it would find? Could it be as successful as the Cassini mission?

Cool fact: When Cassini was finally destroyed, it was 1.4 billion km from Earth!

Links

- [Cassini-Huygens](#)
- [Saturn’s moons](#)
- [Saturn’s rings](#)
- [Saturn the gas giant](#)
- [Titan](#)

Try this!