

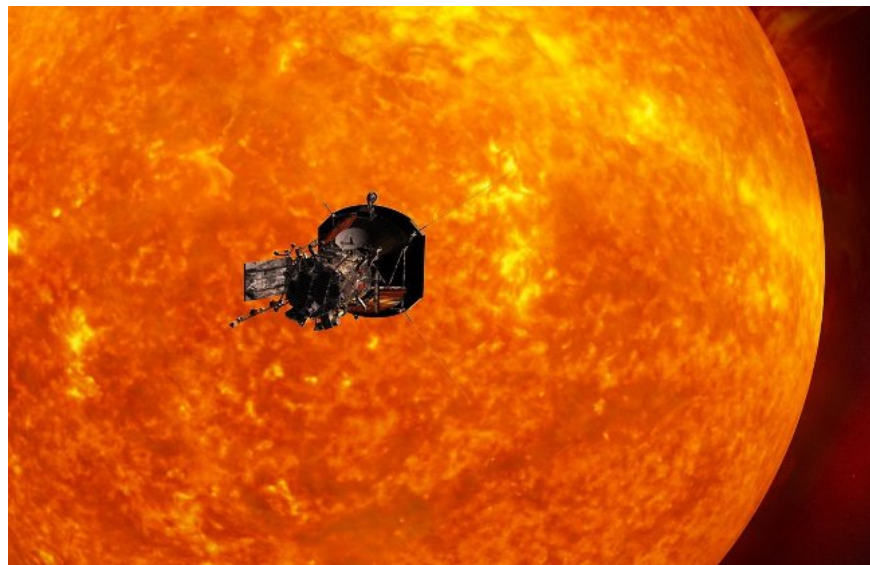
# Can the probe of Solar Probe Plus reach near the Sun?

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People have brought probes to the Moon, Mars and even more remote areas in the vast universe, but will we ever get close to the Sun?

The answer is yes, and what seems impossible will happen in the near future.

In 2018, the US National Aeronautics Agency ( NASA ) plans to launch an unmanned probe called **Solar Probe Plus** toward the Sun, about 6 million km ( 4 million miles ) away . Our Earth is located about 149 million kilometers ( about 93 million miles ) from the Sun and it is expected that the Solar Probe Plus probe will have access to a location 4 million kilometers from the big star. In addition, the aerospace agency is studying preventive measures to prevent the probe of Solar Probe Plus from " melting " when approaching the Sun.



NASA plans to launch an unmanned probe called Solar Probe Plus toward the Sun, about 6 million kilometers (4 million miles) in 2018.

" This will be the first human mission to the Sun. We will not be able to reach the right surface of the Sun, but the probe will approach close enough to answer three important questions ," Eric Christian - Scientific researcher at NASA's Goddard Space Flight Center in Greenbelt, Maryland, said.

First, this exploration mission is expected to help scientists clarify why the Sun's surface, or photosphere, is not as hot as the Sun's atmospheric layer, also known as the Sun. corona ring ( *halo* ). According to NASA, the Sun's surface temperature is " *only* " about 5,500 degrees Celsius ( *10,000 degrees Fahrenheit* ), but the atmosphere above it reaches 2 million degrees Celsius ( *3.5 million degrees F* ).

" *It is normal to think that the farther away from the heat source, the colder it will be. Therefore, the Sun's atmosphere is hotter than the surface is really a big mystery* ," Christian scientist said Live Science news page.

Second, scientists want to find answers on how to accelerate the solar wind. " *We know that the Sun emits high-energy charged particles in all directions at a rate of about 1 million km / h. However, the current science does not explain why the wind is so dense. This particular speed accelerated when it was far from the Sun. The first scientists studying the solar wind recorded the phenomenon of the tail of comets always facing the Sun, showing that the solar wind was moving. faster than the speed of comets* ," says Christian scientist.

Third, this groundbreaking exploration mission will determine why the Sun created geomagnetic storms including high-energy *particles* ( *solar energetic particles - including electrons and protons* ), which can be dangerous. Danger for astronauts and spacecraft, as well as electronic devices on Earth.

Researchers try to find the mysteries from the Earth, but " *those troubles are 93 million miles away from us, [Distance makes] things deviate from the direction hard to predict what's going on.* Christian goes out to the Sun, "Christian said.

In preparation for the ambition to reach the Sun at a distance of 4 million kilometers, NASA scientists solved the temperature challenge by designing a probe with a thick **carbon fiber composite**. 11.4cm ( *4.5 inches* ) capable of withstanding temperatures outside the ship up to 1,370 degrees C ( *2,500 degrees F* ), according to John Hopkins University Applied Physics Laboratory (APL), a NASA collaborator made said on Solar Probe Plus.

" *The solar probe Solar Probe Plus will also be protected from radiation, which can damage the detector circuit, especially its memory* ," Christian said.

Unmanned probe Solar Probe Plus is also equipped with special radiators capable of releasing the heat absorbed through the ship's shield into outer space, to protect the electronic devices on the side. in undamaged. NASA researchers believe that, if there is time and financial security, they can fully develop a spacecraft capable of bringing astronauts to the Sun at a similar distance. self.

If everything goes as planned, the Solar Probe Plus spacecraft will be the closest artificial object to the Sun. So far, this is not the first time humanity has sought to approach the Sun. The Helios 1 spacecraft ( *launched in December 1974* ), arrived at 47 million km ( *29 million miles* ) from the Sun, and then the Helios 2 spacecraft ( *launched in April 1976* ), was approaching the Sun 3 million km more than " *elder* ". Most recently, the Messenger spacecraft ( *launched in August 2004* ) explored Mercury, 58 million kilometers from the Sun.

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