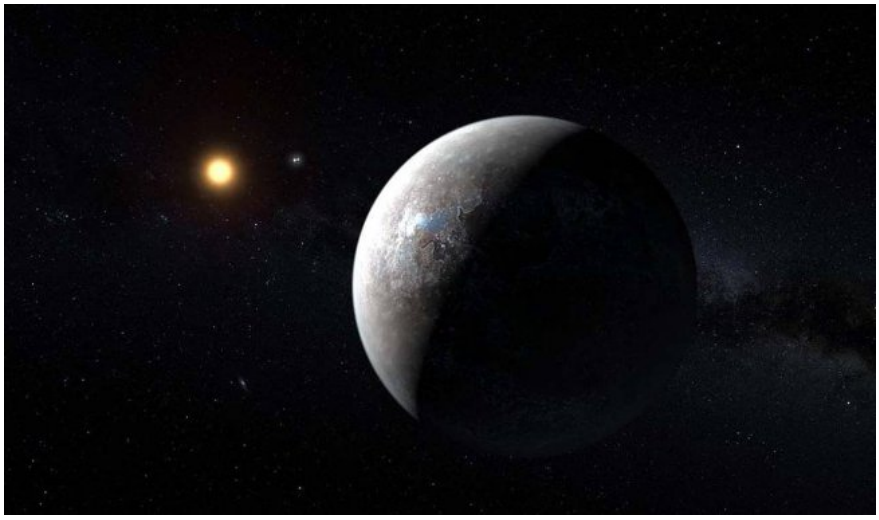
6 strange facts about Proxima Centauri b - 'Second Earth' you may not know

A copy of the Earth that is only 4 light years away from the solar system could be inhabited by aliens. Read the information below to know the strange facts about this newly found planet.

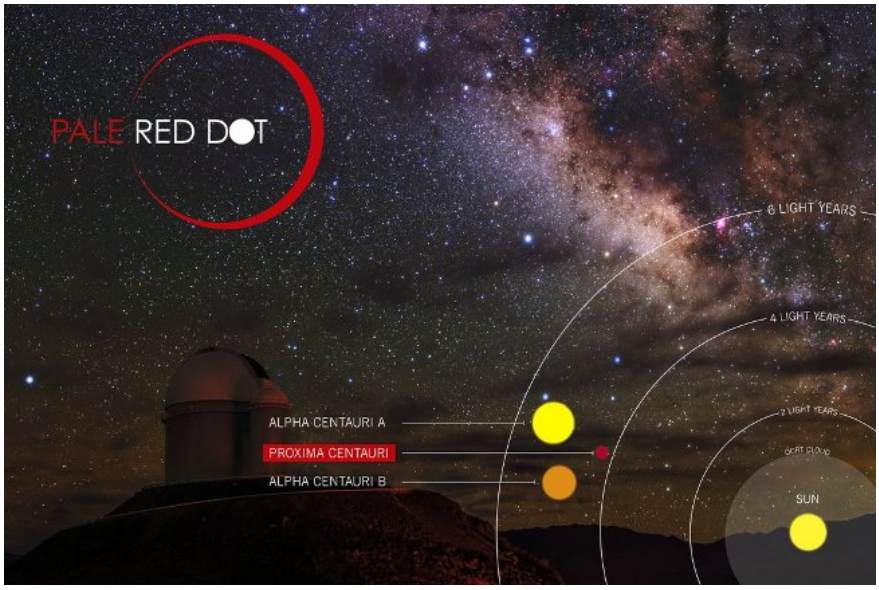
Astronomers discovered a " *strange* " planet orbiting **Proxima Centauri** - the star closest to Earth. This planet, called **Proxima b,** is slightly larger than Earth. It revolves around the habitable area of ??stars, which means that water can exist in liquid form - even people can live.

Proxima Centauri b



Credit: ESO / M.Kornmesser
Although this " *Second Earth* " has similar characteristics to Earth - where we live, **Proxima b** is still a " *mysterious* " and " *alien* " world. Read the information below to know the " *strange* " facts about this newly found planet.

1. Is it a " *strange* " star system?



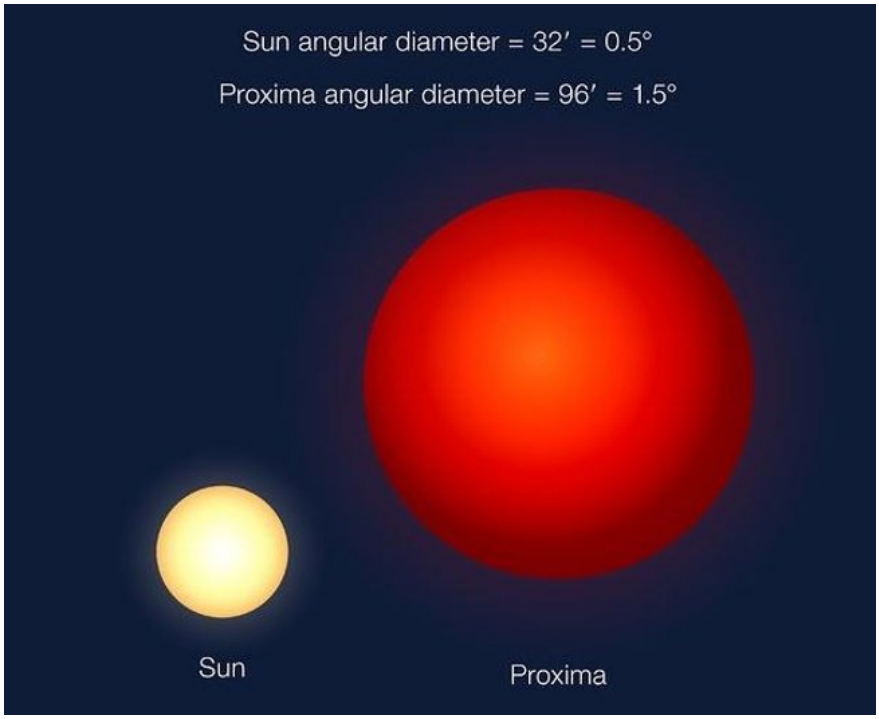
Credit: ESO / Pale Red Dot

Proxima b 's master star is **Proxima Centauri** - part of the trio of strange stars that scientists are still studying. The other two stars are binary stars - that is, they revolve around a focus and collectively known as **Alpha Centauri** . Unsure scientists **Proxima Centauri** has an attractive limit to other star pairs in some trajectory or otherwise just move across them. If it is limited, it will take about 500,000 years to spin around **Alpha Centauri,** or it will take millions of years to leave that area.

2. Close but hard to see

Credit: Digitized Sky Survey 2;Acknowledgment: Davide De Martin / Mahdi Zamani
Alpha Centauri is observable without telescopes - two binary stars combine to form the brightest third star in the sky. Although **Proxima is** closer to Earth than the two **Alpha Centauri** binary stars - 4.22 light years compared to 4.37 light years, it is still much smaller and dimmer than the other two stars. That's because **Proxima** is a red dwarf and **Proxima Centauri is** too dim to be seen with the naked eye.

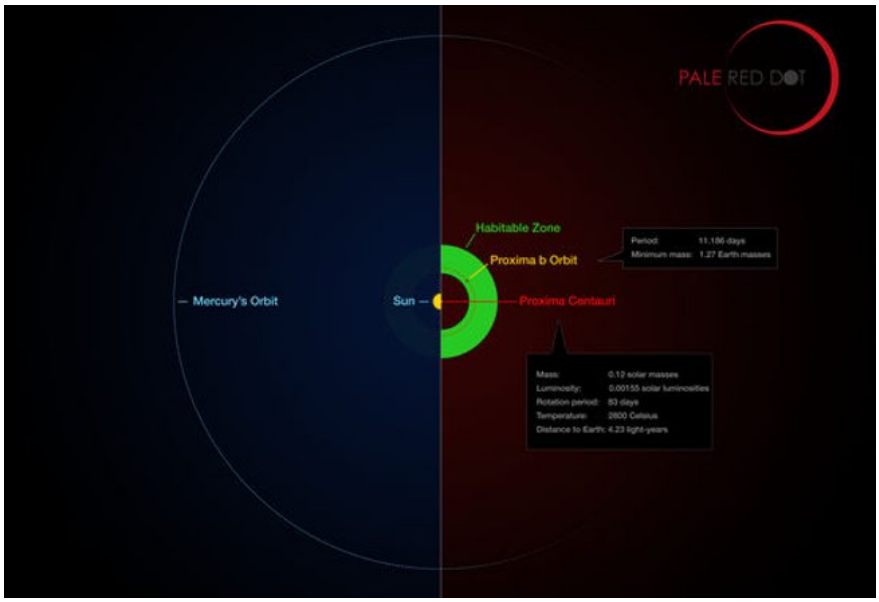
3. Observation angle



Credit: ESO / G.Coleman

Proxima Centauri is a small star, it is only a tenth larger than the size of the Sun. If you look from **Proxima b** , this small dwarf will be 3 times larger than when viewed from the Earth on the Sun. That's because **Proxima** 's trajectory is really, really small. The planet orbiting the host star has a distance of 7.5 million km - only 5% of the distance between the Earth and the Sun (*about 150 million km*). Meanwhile, our Sun is a huge shining star in the sky of **Proxima b** , everyone in the world needs to prepare special devices to be able to see **Proxima Centauri** .

4. Areas that can live (small)



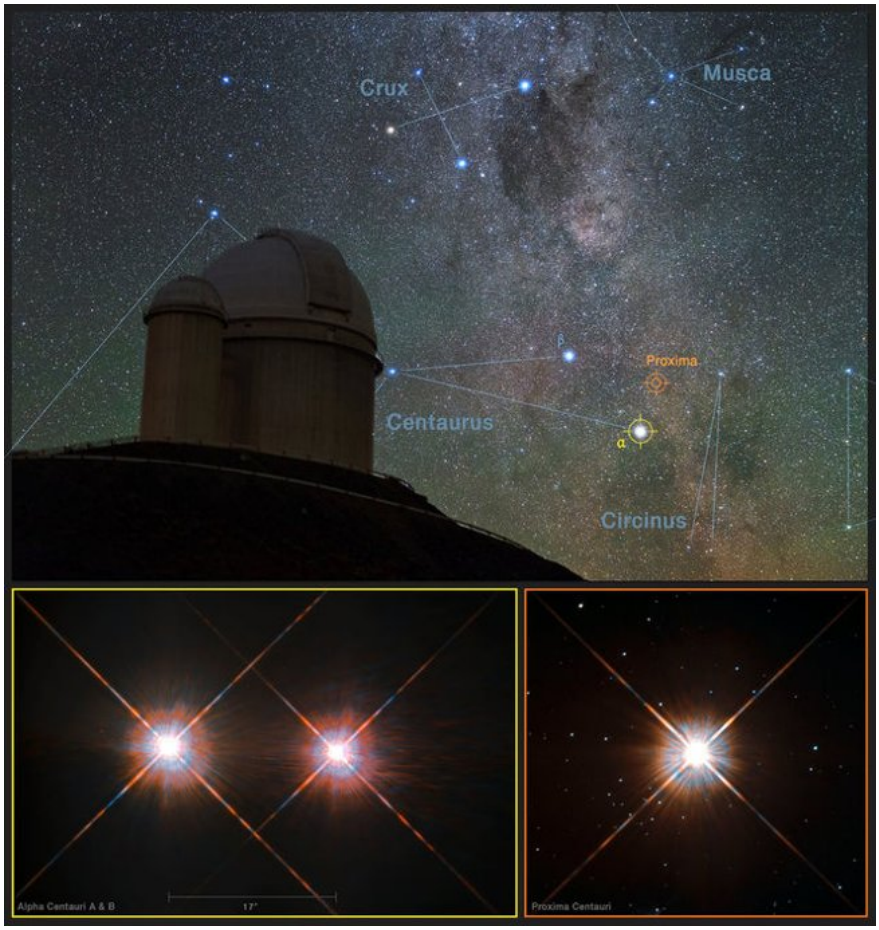
Credit: ESO / M.Kornmesser / G.Coleman

Proxima b exists in the middle of the habitable region of stars, in theory it is where water can exist in liquid form on the planet. Compared to our Sun, **Proxima Centauri** 's habitable area is very close to the host star. The range of stars is much colder than the Sun. Scientists once believed that red dwarf stars like **Proxima** could not exist in the habitable planets that it was spinning very close. But now, scientists think red dwarfs may be the best place to look for other planets that can survive.

5. Is it a " *strange* " planet?

Credit: ESO / M.Kornmesser
Astronomers believe that **Proxima b** is a " *strange* " planet - like the " **Second Earth** " that humans can live on. Its size is about 1.3 times larger than Earth - where we live. The small size makes astronomers liken it to a stone - the planet on the ground is similar to our Earth today. It is even located in the habitable area of **Proxima Centauri** where the temperature that makes water possible exists in liquid form. And it's the " **Second Earth** " - the closest " *strange* " planet we've found, just over 4 light-years away. But don't rush to calculate the time we can go there - or don't count. Even with the most modern science, it will still take thousands of years to reach this nearest star. Take that time to learn about **Proxima b** . Meanwhile, astronomers will continue to study the planet from afar. They will find out where its atmosphere comes from, evidence of water and alien life forms.

6. There is movement



Credit: Y. Beletsky (LCO) / ESO / ESA / NASA / M.Zamani

The **Proxima Centauri** star may be difficult to detect without using special equipment but the " *strange* " **Proxima b** is invisible, even using sky observation devices (*sky watching).*) modern. To explore the " *strange* " planet, astronomers have observed the star master replacing it. When a planet orbits a star, its gravitational pull causes the star to shift slightly. These gravitational pulls produce a Doppler effect or alter the length of the observed wavelengths in the light from the stars. In the **Proxima Centauri** study called " *Doppler's shift* ", astronomers used the telescope of the Southern European Observatory in Chile to discover that the star has a planet larger than its orbit. Earth about 7 million km.