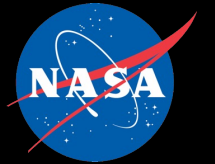


# Hubble Measures the Nearest Transiting Earth-Sized Planet



Hubble has measured the size of the nearest Earth-sized exoplanet that passes across the face of a neighboring star. This alignment, called a transit, opens the door to follow-on studies to see what kind of atmosphere, if any, the rocky world might have.

The diminutive planet, LTT 1445Ac, was first discovered by NASA's TESS (Transiting Exoplanet Survey Satellite) in 2022.

Hubble observations show that the planet is 1.07 times Earth's diameter. This means the world is rocky, like Earth, with approximately the same surface gravity. But at a surface temperature of roughly 500 degrees Fahrenheit, it is too hot for life as we know it.

The planet orbits the star LTT 1445A, which is part of a triple system of three red dwarf stars 22 light-years away in the constellation Eridanus. The star has two other reported planets that are larger than LTT 1445Ac.



This artist's concept shows the nearby Earth-sized exoplanet LTT 1445Ac, as a black dot in front of the bright, light-red dwarf star at center. In the foreground at lower left is another planet in the system, LTT 1445Ab.

Feature: <https://science.nasa.gov/missions/hubble/nasas-hubble-measures-the-size-of-the-nearest-transiting-earth-sized-planet/>

Paper: <https://iopscience.iop.org/article/10.3847/1538-3881/acf561>