# Gliese 12 b Potentially Habitable Exoplanet near Earth

**Source: DTE**

**NASA** has announced the discovery of an **Earth-sized, potentially habitable** exoplanet **named Gliese 12 b,** located just **40 light-years away from Earth**, making it one of the closest known potentially habitable planets to our solar system.

- Gliese 12 b has an **average surface temperature of 42 °C,** which is **lower** than the majority of the 5,000 or so exoplanets discovered so far.
    - The exoplanet is **slightly smaller than Earth,** with a size comparable to Venus.
- Gliese 12 b is a super-Earth exoplanet that orbits an **M-type (red dwarf) star, Gliese 12**, every 12.8 days. The star has a **total of seven planets**, all roughly the size of Earth and likely rocky.
    - Three of the planets orbiting Gliese 12 fall within the **habitable zone**, the distance from a star at which liquid water can exist on the surfaces of planets.
    - The host star is **metal-poor,** suggesting it may have **weaker magnetic fields** and more volcanism than Earth, which could help Gliese 12 b maintain an atmosphere.
- **NASA's Transiting Exoplanet Survey Satellite (TESS)** played a crucial role in the initial detection of Gliese 12 b, paving the way for further observations and analysis with the **James Webb Space Telescope.**

**Read more:** Exoplanet