

Goldilocks Zone

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Context: NASA planet hunter finds Earth-sized world in 'Goldilocks zone'

- The Goldilocks Zone refers to the habitable zone around a star where the temperature is just right – not too hot and not too cold – for liquid water to exist on a planet
- The location of a Goldilocks Zone around another star depends on the type of star,
- Bigger hotter stars have their Goldilocks Zones further out, while smaller cooler stars such as M-type red dwarf stars have habitable zones much closer in.
- Just because a planet or moon is in the Goldilocks Zone of a star, doesn't mean it's going to have life or even liquid water. Earth isn't the only planet in the Sun's Goldilocks Zone – Venus and Mars are also in this habitable zone, but aren't currently habitable.
- NASA's planet-hunter satellite TESS had discovered an Earth-sized world within the habitable range of its star, which could allow the presence of liquid water.
- A few other similar planets have been discovered before, notably by the former Kepler Space Telescope, but this is the first discovered by TESS, which was launched in 2018
- The planet, named "TOI 700 d", is relatively close to Earth – only 100 light-years away,
- TESS was designed and launched specifically to find Earth-sized planets orbiting nearby stars