Epsilon Eridani is surrounded by a dust disk, which might indicate that a Solar System is being formed around this star. Dust disks are much easier to spot than tiny planets, so they are signposts for the presence of planets. The disks also give clues about how planets are formed.
This image is Gemini’s historic discovery of the first family of planets around a star. The star is blocked out in this image to show the planets more clearly. The planets are labeled “b”, “c”, and “d”.

HR 8799 & Planets
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Distance from the Sun: 130 light years

www.gemini.edu
These color contours show the distribution of carbon monoxide (CO) gas associated with the Helix Nebula taken with one of CSO’s heterodyne receivers, overlaid on an infrared image. Different color contours trace different parts of the cold circumstellar gas with different velocities shed by the dying star.
The Helix planetary nebula is an enormous bubble of gas blown by a star which has reached the final stages of its existence. The colors are formed by intense UV light from the star interacting with the gas bubble. The size of the nebula is more than 5000 times the size of our Solar System.