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<https://eyes.nasa.gov/apps/exo/#/system/Kepler-16>

<https://science.nasa.gov/exoplanet-catalog/kepler-16b/>

<https://www.stellarcatalog.com/estrellas/kepler-16>

**System: Kepler-16A**

-Distance in light years from the system to the earth: 245 light-years

-Number of planets in the system: 1 planet

**Star/s:**

-Kepler-16A

\*Star type: Type K

\*Mass of star: 0.69 Sun Mass

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-Kepler-16B

\*Type of star: Red Dwarf

\*Mass of star: 0.203 Sun Mass

**Planet/s:**

-Kepler-16 b

\*It is in habitable zone: Habitable

\*Type of planet: Gas Giant

\*Mass of the planet: 0.333 Jupiter Mass

\*Orbital radius of the planet: 0.7048 AU

\*Orbital Period of the planet: 228.8 days

\*When discovered: 2011

\*Curiosity of the planet: is a world where two suns set over the horizon instead of just one

\*Method of planet discovery: Transit

2.-

[https://eyes.nasa.gov/apps/exo/#/system/55\\_Cnc](https://eyes.nasa.gov/apps/exo/#/system/55_Cnc)

**System: Copernicus**

-Distance in light years from the system to the earth: 41 light-years

-Number of planets in the system: 5 planets

**Star/s:**

-Copernicus

\*Star type: Type K

\*Star mass: .95 Sun Mass

**Planet/s:**

-55 Cancri b

\*It is in a habitable area: No

\*Type of planet: Gaseous Giant Planet

\*Mass of the planet: 0.8306 Jupiter Mass

\*Orbital radius of the planet: 0.1134 AU

\*Orbital period of the planet: 14.7 days

\*When it was discovered: 1996

\*Curiosity of the planet: This planet has a very short orbital period of just 14.7 days, indicating its extreme proximity to its host star, which significantly affects its temperature and atmospheric conditions.

\*Planet discovery method: Radial velocity

-55 Cancri c

\*It is in a habitable area: No

\*Type of planet: Gaseous Giant Planet

\*Mass of the planet: 0.1714 Jupiter Mass

\*Orbital radius of the planet: 0.2373 AU

\*Orbital period of the planet: 44.4 days

\*When it was discovered: 2004

\*Curiosity of the planet: It has a relatively low mass compared to its companions, which suggests a different formation history and atmospheric composition compared to larger gas giants.

\*Planet discovery method: Radial Velocity

-55 Cancri d

\*It is in a habitable area: No

\*Type of planet: Gas Giant

\*Mass of the planet: .91 Sun Mass

\*Orbital radius of the planet: 5.957 AU

\*Orbital period of the planet: 15.3 years

\*When it was discovered: 2002

\*Curiosity of the planet: With a mass of nearly one solar mass, this gas giant is significantly more massive than many known exoplanets, leading to unique gravitational dynamics in the system.

\*Planet discovery method: Radial Velocity

#### -55 Cancri e

- \*It is in a habitable area: No
- \*Type of planet: Super Earth
- \*Mass of the planet: 7.99 Earths Mass
- \*Orbital radius of the planet: 0.01544 AU
- \*Orbital period of the planet: 0.7 days
- \*When it was discovered: 2004
- \*Curiosity of the planet: This super-Earth is thought to be composed of a significant amount of carbon, potentially making it a "diamond planet," which has sparked interest in its atmospheric conditions and composition.
- \*Planet discovery method: Radial velocity

#### -55 Cancri f

- \*It is in a habitable area: No
- \*Type of planet: Gas Giant
- \*Mass of the planet: 0.141 Jupiter Mass
- \*Orbital radius of the planet: 0.7708 AU
- \*Orbital period of the planet: 259.9 days
- \*When it was discovered: 2007
- \*Curiosity of the planet: Its relatively low mass and close orbit suggest it might have interesting atmospheric interactions, possibly leading to a unique weather system influenced by its star.
- \*Planet discovery method: Radial Velocity

### 3.-[https://eyes.nasa.gov/apps/exo/#/system/GJ\\_1132](https://eyes.nasa.gov/apps/exo/#/system/GJ_1132)

#### **System:GJ 1132**

-Distance in light years from the system to the earth: 41 light-years

-Number of planets in the system: 2 planets

#### **Star/s:**

-GJ 1132

\*Star type: M type

\*Star mass: .1810 Sun Mass

#### **Planet/s:**

-GJ 1132 b

\*It is in a habitable area: No

\*Type of planet: Super Earth

\*Mass of the planet: 1.83705 Earths Mass

\*Orbital radius of the planet: 0.0157 AU

\*Orbital period of the planet: 1.6 days

\*When it was discovered: 2015

\*Curiosity of the planet: Has an H<sub>2</sub>O-dominated atmosphere containing

\*Planet discovery method: Transit

-GJ 1132 c

\*It is in a habitable area: No

\*Type of planet: Super Earth

\*Mass of the planet: 2.64 Earth Mass

\*Orbital radius of the planet: 0.0476 AU

\*Orbital period of the planet: 8.9 days

\*When it was discovered: 2018

\*Curiosity of the planet: Being a larger super-Earth, it may possess a thicker atmosphere, leading to interesting questions about potential volcanic activity and surface conditions.

\*Planet discovery method: Radial Velocity

4.- [https://eyes.nasa.gov/apps/exo/#/system/51\\_Peg](https://eyes.nasa.gov/apps/exo/#/system/51_Peg)

**System: 51 Pegasi**

-Distance in light years from the system to the earth: 50 light-years

-Number of planets in the system: 1 Planet

**Star/s:**

-51 Pegasi

\*Star type: Type G

\*Star mass: 1.11 Sun Mass

**Planet/s:**

-51 Pegasi b

\*It is in a habitable area: No

\*Type of planet: Gas Giant

\*Mass of the planet: 0.46 Jupiter Mass

\*Orbital radius of the planet: 0.0527 AU

\*Orbital period of the planet: 4.2 days

\*When it was discovered: 1995

\*Curiosity of the planet: The atmosphere is unrealistically hot

\*Planet discovery method: Radial Velocity

<https://www.aanda.org/articles/aa/abs/2002/13/aa1309/aa1309.html>

## 5.-<https://eyes.nasa.gov/apps/exo/#/system/Kepler-16>

### System: Kepler-186

-Distance in light years from the system to the earth: 579 light-years

-Number of planets in the system: 5 planets

#### Star/s:

-Kepler-186

\*Star type: M type class

\*Star mass: 0.5400 Sun Mass

#### Planet/s:

-Kepler-186 b

\*It is in a habitable area: No

\*Type of planet: Super Earth

\*Mass of the planet: 1.24 Earth Mass

\*Orbital radius of the planet: 0.0343 AU

\*Orbital period of the planet: 3.9 days

\*When it was discovered: 2014

\*Curiosity of the planet: Although not in the habitable zone, its size is close to Earth's, making it a valuable subject for studying rocky planets around M-type stars.

\*Planet discovery method: Transit

-Kepler-186 c

\*It is in a habitable area: No

\*Type of planet: Super Earth

\*Mass of the planet: 2.1 Earth Mass

\*Orbital radius of the planet: 0.0451 AU

\*Orbital period of the planet: 7.3 days

\*When it was discovered: 2014

\*Curiosity of the planet: This planet's higher mass suggests it could have a denser atmosphere, potentially offering insights into its climate and weather patterns.

\*Planet discovery method: Transit

-Kepler-186 d

\*It is in a habitable area: No

\*Type of planet: Super Earth

\*Mass of the planet: 2.54 Earth Mass

\*Orbital radius of the planet: 0.0781 AU

\*Orbital period of the planet: 13.3 days

\*When it was discovered: 2014

\*Curiosity of the planet: With a significant mass, it may have the potential for geological activity, which could affect its atmospheric conditions.

\*Planet discovery method: Transit

-Kepler-186 e

- \*It is in a habitable area: No
- \*Type of planet: Super Earth
- \*Mass of the planet: 2.15 Earth Mass
- \*Orbital radius of the planet: 0.11 AU
- \*Orbital period of the planet: 22.4 days
- \*When it was discovered: 2014
- \*Curiosity of the planet: This super-Earth has a longer orbital period, allowing it to experience varying solar influences, which might lead to unique seasonal changes.
- \*Planet discovery method: Transit

-Kepler-186 f

- \*It is in a habitable area: No
- \*Type of planet: Super Earth
- \*Mass of the planet: 1.71 Earth Mass
- \*Orbital radius of the planet: 0.432 AU
- \*Orbital period of the planet: 129.9 days
- \*When it was discovered: 2014
- \*Curiosity of the planet: This planet's distant orbit suggests it could have a more stable climate and potentially interesting geological features due to its long orbital period.
- \*Planet discovery method: Transit

For Systems:

- Distance in light years from the system to the earth:
- Number of planets in the system:

For Planets:

- It is in a habitable area:
- Planet type:
- Mass of the planet:
- Orbital radius of the planet:
- Orbital Period of the planet:
- When it was discovered:
- Curiosity of the planet:

Planet discovery  
method:

For Stars:

- Star type
- Star mass
- Star Curiosity



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