

**EQACC SOLAR**

# Unit Solar System



## Overview

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There are eight planets in the solar system. The four inner terrestrial planets are Mercury, Venus, Earth, and Mars, all of which consist mainly of rock. The four outer planets are Jupiter, Saturn, Neptune, and Uranus, giant planets that consist mainly of either gases or ice. Pluto was considered the ninth planet until 2006, when the International Astronomical Union voted to classify Pluto as a dwarf planet instead. Where is the solar system?

The.

Located at the centre of the solar system and influencing the motion of all the other bodies through its gravitational force is the Sun, which in itself contains more than 99 percent of the mass of the system. The planets, in order of their distance outward from the Sun, are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune. Four planets—Jupiter through Neptune—have ring systems, and all but Mercury and Venus have one or more moons. Pluto had been officially listed among the planets since it was discovered in 1930 orbiting beyond Neptune, but in 1992 an icy object was discovered still farther from the Sun than Pluto. Many other such discoveries followed, including an object named Eris that appears to be at least as large as Pluto. It became apparent that Pluto was simply one of the larger m.

All the planets and dwarf planets, the rocky asteroids, and the icy bodies in the Kuiper belt move around the Sun in elliptical orbits in the same direction that the Sun rotates. This motion is termed prograde, or direct, motion. Looking down on the system from a vantage point above Earth's North Pole, an observer would find that all these orbital motions are in a counterclockwise direction. In striking contrast, the comet nuclei in the Oort cloud are in orbits having random directions, corresponding to their spherical distribution around the plane of the planets. The shape of an object's orbit is defined in terms of its eccentricity. For a perfectly circular orbit, the eccentricity is 0; with increasing elongation of the orbit's shape, the eccentricity increases toward a value of 1,

the eccentricity of a parabola. Of the ei.

What are the astronomical units of the Solar System?

Distances in the solar system are often measured in astronomical units (abbreviated AU). An astronomical unit is the average distance between the Earth and the Sun: Jupiter is about 5.2 AU from the Sun and Pluto is about 39.5 AU from the Sun. The distance from the Sun to the center of the Milky Way is approximately  $1.7 \times 10^9$  AU. Light-Years:.

How big is the Solar System?

Short answer: The Solar System is a disc shape, 244 astronomical units wide (244 times the distance from the Sun to the Earth, or about 36.6 billion km).  
Long answer: There is some disagreement over exactly where the edge of the Solar System is, so there are disagreements over its size.

What is astronomical unit?

Astronomical unit, a unit of length effectively equal to the average, or mean, distance between Earth and the Sun, defined as 149,597,870.7 km (92,955,807.3 miles). The astronomical unit provides a convenient way to express and relate distances of objects in the solar system and to carry out astronomical calculations.

How do you calculate astronomical units?

An astronomical unit ( AU ) is the distance from the Earth to the Sun ( about 93 million miles ) An easy way to draw the Solar System is to scale a drawing to  $1\text{AU} = 1\text{cm}$  and draw each planet starting from the Sun at 0cm. To walk the solar system, you'll need to convert the Astronomical Units to something walkable.

## Unit Solar System

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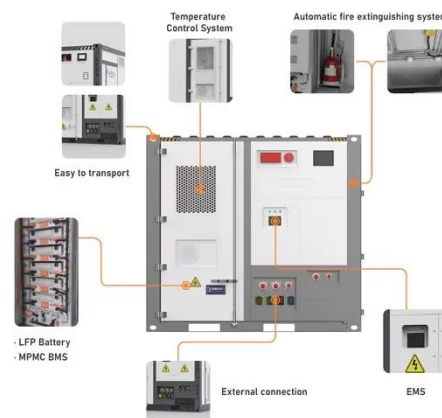


### **Astronomical unit (AU, or au) , Definition, Conversion,**

Astronomical unit, a unit of length effectively equal to the average, or mean, distance between Earth and the Sun, defined as 149,597,870.7 km (92,955,807.3 miles). The astronomical unit ...

### **How big is the Solar System?**

The scale of our Solar System is gigantic. There's more to our cosmic neighbourhood than eight planets and an asteroid belt.



### **Solar System Unit**

Our FREE Solar System Unit includes tons of printables, hands-on activities, a slideshow, book recommendations, videos, and more!

### **Units for Distance and Size in the**

## Universe

However, the distances and sizes in the universe can be so big, that astronomers have invented more units to describe distance. Astronomical ...



### 1.2: Our Solar System

What Do You Think: Contents of the Solar System Three students are discussing which objects are in our Solar System. Annie: "A solar system ...

## Solar System: Facts

Our solar system includes the Sun, eight planets, five dwarf planets, and hundreds of moons, asteroids, and comets.



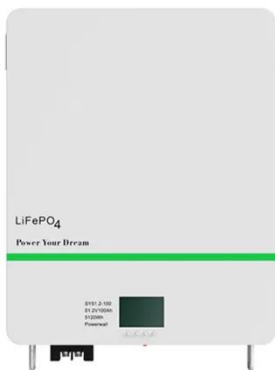
### How big is the Solar System?

How big is the Solar System? Short answer: The Solar System is a disc shape, 244 astronomical units wide (244 times the distance from the Sun to the Earth, or about 36.6 billion km). Long ...



## Solar system , Definition, Planets, Diagram, Videos, & Facts

Solar system, assemblage consisting of the Sun and those bodies orbiting it: 8 planets with more than 400 known planetary satellites; many asteroids, some with their own ...



### 1.2: Our Solar System

What Do You Think: Contents of the Solar System Three students are discussing which objects are in our Solar System. Annie: "A solar system has different things in it like galaxies and ...

## Solar System Exploration

The solar system has one star, eight planets, five dwarf planets, at least 290 moons, more than 1.3 million asteroids, and about 3,900 comets.



## Units for Distance and Size in the Universe

However, the distances and sizes in the universe can be so big, that astronomers have invented more units to describe distance. Astronomical Units: Distances in the solar system are often ...

## How big is the Solar System?

Walk the Solar System To walk the solar system, you'll need to convert the Astronomical Units to something ...



## How big is the Solar System?

Walk the Solar System To walk the solar system, you'll need to convert the Astronomical Units to something walkable. If you multiply each distance from the Sun by ...



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