

# **Scale model of solar system in cm**





## Overview

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Is there a scale model of the Solar System?

Our finished scale model of the Solar System, complete with asteroid belt!  
Credit: Mary McIntyre. As the distances between the Solar System planets are so big, it's almost impossible to have both accurate planet sizes and distances in one scale model.

How do you make a scale model of a solar system?

Make a Solar System on a String (scale distance model) Tie colored beads onto a string to make a scale model of the distances between planets in the solar system. You can wear your model or even display it on a wall. Measure and cut a piece of string about 30 cm longer than the distance you calculated from the Sun to Neptune.

How accurate is a scale solar system?

Some scale models show just scale distances, some show just scale planet sizes, while some display both. An accurate size and distance scale model in which Mercury, the smallest planet, is 1 mm across would require about half a mile to properly display the distance from the Sun to Neptune. There are scale solar systems all over the world.

How to understand the true dimensions of the Solar System?

The best way to understand the true dimensions of the solar system is to create a scale model. Use the tool below to visualize the solar system at various scales. Choose the size of the Sun you want in your model in STEP 1. The dimensions of the other objects and their distances will be calculated automatically.

How do you make a scale model of a planet?

Use distance markers like cones, ground stakes, or popsicle sticks to mark the locations of the planets at the distances you calculated. Attach drawings or



cutouts of the planets to their markers. Use beads and string, sidewalk chalk, or your own creative choice of materials to build a scale model of planet sizes or distances in the solar system.

How can we imagine the scale of our Solar System?

The scale of our solar system is difficult to imagine when we are standing on what appears to be a large planet looking at an apparently small Sun. Pictures don't help much. Although we could print the planet sizes to scale, the paper would need to be way too large to show the scaled distances.



## Scale model of solar system in cm



### Educator Guide: Solar System Bead Activity , NASA/JPL Edu

Students create a scale model of the solar system using beads and string. Student Procedure Complete the distance chart by multiplying each AU distance by a scale-factor of 10 centimeters per astronomical unit. Start your scale model by cutting a 4.5-meter

### [The Solar System to Scale: Dynamic 2D Model](#)

1 pixel = 1,000 km. This 2D visual model illustrates the scale of the sun and planets in our solar system, and their current distance from each other. The Solar System to Scale in which every pixel on the screen represents 1,000 kilometers.



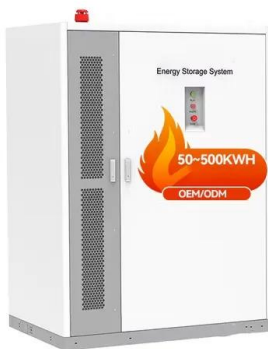
Standard 20ft containers



Standard 40ft containers

### Scale Model Solar System resources for informal educators

For Park Educators: (Credit: Peoria Riverfront Museum) Use your large parks to create a TRULY scale model Solar System in both size AND scale, something practically impossible in any other venue. It can be elaborate, like in the above picture from the Peoria Riverfront Museum in IL, or just print out the NASA "Planets to Scale PDF," and find some space.

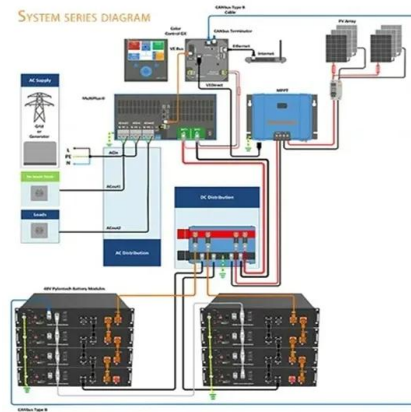


### [Solar system scale model project](#)

David created scale models of the planets in our solar system, at a scale of 1 cm to 100,000 km. You can add to this activity if you're able to find a wide-open space like a country road, where



you can lay the planets out at their relative distances from the Sun.



A True Scale Model of the Solar System

To get a better feel for the true scale of the solar system, the ASTR 1010 class has constructed such a model, For our campus model the Sun is taken to be the 14 cm (6 in) diameter sphere at the center of the commercial model that can be seen in a display



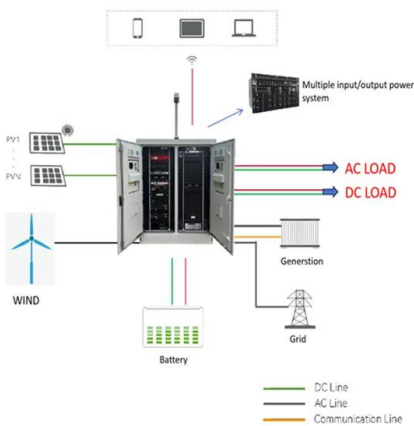
7 Scale Model of the Solar System

Name: Date: 7 Scale Model of the Solar System  
 7.1 Introduction The Solar System is large, at least when compared to distances we are familiar with on a day-to-day basis. Consider that for those of you who live here in Las Cruces, you travel 2 kilometers (or 1.2



**Scale Model of the Solar System , Discover the Universe**

The best way to understand the true dimensions of the solar system is to create a scale model. Use the tool below to visualize the solar system at various scales. Instructions





## Student Project: Make a Scale Solar System , NASA/JPL Edu

In this project, you will create your own scale model of the solar system by learning how to calculate scale distances, the relative sizes of planets, or both. Then, use beads and string, ...



### Scale Model Solar System

Scale Model Solar System Purpose: Today you will make a scale model solar system. Every step you take in our model is like walking 10 billion steps in the real solar system. Our scale factor for the model solar system is then 1 to 10 billion (like the scale on

### Scale Model Solar System

The Colorado Scale Model Solar System depicts the Sun, the planets, and the distances between them all on the same scale of 1 to 10 billion. That is, the real objects and distances are 10 billion times larger than the objects and distances in the model.



### [Build a Solar System Model](#)

cm Red giant (Betelgeuse) 521962500 km ft m  
White dwarf (Sirius B) 13919 km in mm Neutron star 20 km in One of the most exciting exercises I ever did as a kid was to make a scale model of the Solar System. Most of the pictures in my books made the



## Model the Distances between Planets in our Solar System

You will make a model of the solar system. Imagine you shrink the solar system so much that the distance from Earth to the Sun becomes 10 cm. When you shrink the solar system this much, all the planets shrink in size, so they become too small to see. You



## Create a Solar System Scale Model With Spreadsheets

In this activity, students use scale, proportion and/or ratios to develop a scale solar system calculator. Using spreadsheet software, students will determine the size of and/or distances ...

## Scale Model Solar System Resources for Informal Educators ...

oTo Scale: The Solar System by Wylie Overstreet and Alex Gorosh, is a 7 minute artistic video about creating a truly scale model Solar System. It's also downloadable for offline viewing. Also consider their video about the 2017 Eclipse scale model. o Drone Solar System Model is a 9 minute video about an approximate scale model Solar



## Make a Model of the Solar System , Lesson Plan

You can also provide the scale factor, or ask them to shrink the solar system until the radius of Earth in their model is, for example, 1 cm, or until the distance from Earth to the Sun is 10 cm. This will ensure all groups have a model that is ...



Scale and Size , Solar System , Space FM

7.5 - Be able to use information about the scale of the Solar System Understanding the size differences of objects in the solar system as well as their correct distances from each other is important. There are many good projects that will show you how to make your own scale model.



Scale model of the Solar System

Solar System models, especially mechanical models, called orreries, that illustrate the relative positions and motions of the planets and moons in the Solar System have been built for centuries. While they often showed relative sizes, these models were usually not built to scale.



**1.7: Scale the Universe**

You will create a scale model of the Solar System and relate it to everyday and galactic scales. On this scale, the Sun is about 16 cm across, Earth is 15 m away, and even the farthest planet, Neptune, is only 450 meters distant. The smaller scale makes



**VOS40**

VOS 4 O offers a simple solution to scale our solar system. From a reference (diameter, distance, or scale), VOS 4 O lists the diameters and distances scaled for all planets, the eccentricity of their orbit, and their respective positions around the sun at a given date (heliocentric longitude).



## Solar System Scale Model

help you understand the sizes and distances of our solar system, we've created a scale model. Our Solar System, real imagery but not to scale Stanford Solar Center Scale Model 2 Process: 1. Ask your audience if they know what a scale model is. A the actual



### [The 8 planets of the Solar System to scale](#)

A model of the 8 planets of the solar system to true scale to one another. Much as in reality, the majority of the set's volume & mass is dominated by the gas giants with the terrestrial planets making only a partial handful of objects. In addition the gas giants feature their equatorial deformation to scale, reproduced with their correct oblate spheroid shape. Diameters of the ...



## Scale Model of the Solar System , Discover the Universe

On the other hand, if the distances are to scale then the objects will be too small to be visible. The best way to understand the true dimensions of the solar system is to create a scale model. Use the tool below to visualize the solar system at various scales.



### How to Make a Solar System Model (with Pictures)

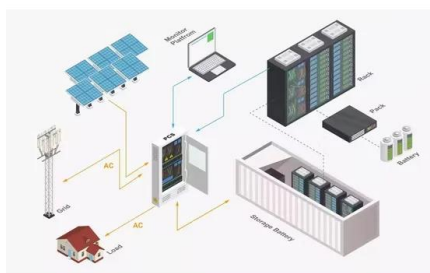
Scale solar system models by size or distance from the Sun. When building a solar system model, scale the planets either by size or distance from the Sun. Pick a base unit, like Earth-Sun distance or Mercury's diameter, then scale up the rest.





### Scale Models of the Solar System

so large. In making a scale model, you need to divide the actual figure by any standard number to make a scaling factor. For example, if the wheels of a model car are 9 cm in diameter, and the wheels of a real car are 72 cm in diameter, then the scaling factor is



### **7 Options for Creating Solar System Scaled Models**

Solar System Calculator Resources If you need a solar system scale model calculator to help you as you are working on these activities with your class, I've got you covered. You can find one through Think Zone that also helps you create a map or this resource, Build a Solar System Model, that contains not only a calculator but lots of other great resources to help you too!

### **Solar System Scale Model**

Although we could print the planet sizes to scale, the paper would need to be way too large to show the scaled distances. Instead, to help you understand the sizes and distances of our ...



### A Scale Model of the Solar System

Purpose: Construct a scale model of the solar system to familiarize the student with the relative sizes and positions of the planets in the solar system and the vast distances between them and ...



Make a scale model of the Solar System

Using scale models helps us to visualise this. In this project we'll show you how to make a model of the Solar System that shows the distances between the planets to scale. It makes for a fun science and astronomy project for kids, both at ...



Scale Model of the Solar System

Name: Date: Scale Model of the Solar System Introduction The Solar System is large, at least when compared to distances we are familiar with on a day-to-day basis. Consider that for those of you who live here in Las Cruces, you travel 2 kilometers (or 1.2 miles



**Image credit: NASA/JPL Scale Model Solar System Teacher's Guide**

o The scale factor for this scale model solar system is 1:10 billion. o One good way to talk about scale factors with your students is to discuss maps. You may also want to ask them to name other types of scale models they have



Scale Model of the Solar System

Scale Model of the Solar System Do you need a dramatic way to help your community understand the true scale of the solar system, both size and distance? We have designed a scale model that centers on an 8' diameter Sun and extends through the If





### [Build a Solar System Model](#)

Make a scale model of the Solar System and learn the REAL definition of "space." In 1993, Ron established the museum's presence on the World Wide Web, making it among the first 600 websites in the world. In 1996, he spearheaded the museum's experiments



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