

# **Solar system scale model calculator**





## Overview

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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 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 do I calculate scaled planet diameters & planet-Sun distances?

Calculate the scaled planet diameters and planet-sun distances for a solar system model. Enter scale or diameter or distance, select to show table and/or map below, select options, then press Calculate. Please enter scale or diameter or distance from sun. Orbits of objects beyond Neptune are highly eccentric ellipses, not circles. Map not shown.

How do I build a solar system model?

To construct a solar system model, enter 5 (for example) in the scale factor



box, click "Earth diameter" and you will have all the dimensions in terms of the Earth's diameter.

How do students calculate scale distances between planets?

Using spreadsheet software, students will determine the size of and/or distances between planets on a solar system model that fits on a playground. Decide in advance if students will calculate scale distance from the Sun to the planets, scale size of planets or both.



## Solar system scale model calculator

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### 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 Calculator](#)

Calculate the scaled planet diameters and planet-sun distances for a solar system model. Enter scale or diameter or distance, select to show table and/or map below, select options, then press Calculate. Examples: Scale 1 : 100000000 or Sun Diameter ...



### 7 Options for Creating Solar System Scaled Models

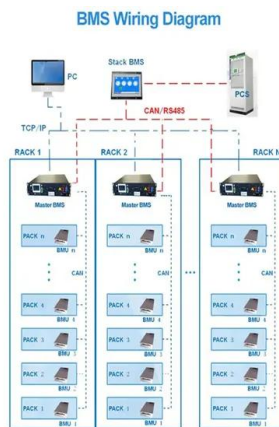
Solar System Calculator Resources If you need a solar system scale model calculator to help you as you are working on these activities with your class, I've got you covered. You can find one through Think Zone that also helps you create a map or this resource, Build a Solar System Model, that contains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

### Model of the Solar System

I found a great calculator that lets you calculate various scale model versions of the Solar System. You put in the size for the Sun and then it calculates both the diameters of the scale



model

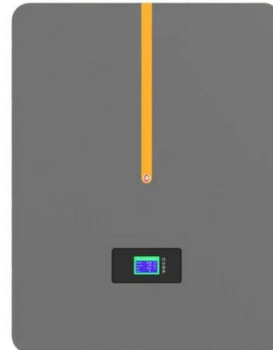


### jsOrrery

Since the distances in the Solar System are so huge, we can't even see the planets at this scale, so I made it possible to make the planets larger to see them more easily. I left the possibility to view them at their real size, because I feel it gives a better hint about the ...

### [Solar System Scale Model Calculator](#)

Method 1: Your web page may simply link to the Solar System Scale Model Calculator main page (SolarSystemModel.php), with the scale, location, and options preset as you choose. You can use table=y/n and map=y/n options to set whether it initially shows the table, the map, or both.



**PRODUCT INFORMATION**

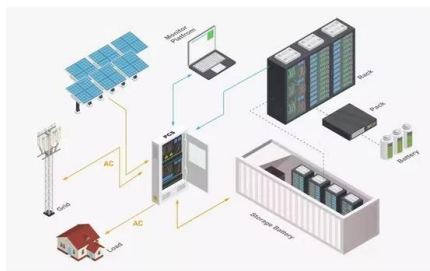
### Student Project: Make a Scale Solar System , NASA/JPL Edu

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, ...



### [A Scale Model of our Solar System](#)

Next, choose a scale for the solar system by entering a value for the size of the sun (in mm) and then click "Calculate". Click on the "Draw Orbits" button to show the orbits of the planets on the map at your chosen scale. The orbits are drawn centred on the current



### [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.

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

Click on the "Calculate" button. Notice that the distances and sizes of the planets will automatically fill in. I've also provided some other interesting scale comparisons at the bottom ...



### **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



### A Scale Model of the Solar System

A Scale Model of the Solar System (Developed by Dr. David H. Hathaway, NASA/MSFC)  
Background: From 1959 to the present the National Aeronautics and Space Administration has sent a number of spacecraft to explore our solar system. Many different types of



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PHYS133 Lab 2 Scale Model of the Solar System  
UDel Physics 5 of 7 Fall 2018 Table 3 - Scale Data for Major Moons  
Object Diameter (km) Diameter Distance (km) Distance Scale (cm) from planet  
Scale (cm) Moon (Earth) 3,476.00 384,400 22.

### **Model Solar System**

Model Solar System Define Your Scale This page calculates the sizes of objects in a model solar system. To determine a scale, enter a scaled size in only one of the boxes below. The size should be entered both as the number and its units of measurement, for example, if you want Jupiter to be 6 feet 6 inches in diameter, enter 6.5 feet or, alternately, 6 feet + 6 in (the plus sign is ...



### **Solar System Model Calculator - Skynet and Afterglow User ...**

Solar System Model Calculator Step-by-Step tool instructions Click "Next" above to see the step-by-step instructions. Choose a scale by choosing: Pluto -- Distance from the Sun -- [the distance you want to walk] -- miles Check the "map" checkbox and I



### 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

### DETAILS AND PACKAGING



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

Calculate the scale factor when the actual measurements of the solar system and the model are given. Learn facts about the solar system, such as the number of planets in the solar system, the small size of the planets compared to the size ...

### Build a Solar System

If you build your solar system on a roll of toilet paper, you can make the Sun about .4 inches (10 mm) across and still fit the entire solar system on the roll. A standard roll of toilet paper has about 450 sheets that are about 4.375 inches long, hence the roll is about 164 feet long.



### Calculate Solar System Model

Calculate Solar System Model Calculator for the distances and sizes in a scale model of the solar system. Such models, which illustrate the proportions in our solar system, in reality are ...



### Voyage's 1 to 10-Billion Scale

At the 1 to 10-billion scale this constraint is easily satisfied even in Voyage's outer Solar System where the planets are much farther apart. In addition, the Voyage Mark I stanchion height of 8.5 feet (2.6 m) was obtained from computer modeling meant to ensure that the stanchion is visible at a distance even if an intervening crowd of people is close to the visitor.



### **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 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



### **SOLAR SYSTEM CALCULATOR**

SOLAR SYSTEM CALCULATOR. To construct a solar system model, enter 5 (for example) in the scale factor box, click "Earth diameter" and you will have all the dimensions in terms of the ...





## 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



## Desmos Solar System Simulator and Calculator v2

Welcome to Vexxen's Desmos Solar Simulator and Builder, This can be used to simulate any system of stable orbits, no matter how complex, There is also a calculator for habitable zone and other things. This can be used to simulate a ...

### [Solar System Scale Model Calculator](#)

Calculate the scaled planet diameters and planet-sun distances for a solar system model. Enter scale or diameter or distance, select to show table and/or map below, select options, then press Calculate. Examples: Scale 1 : 100000000 or Sun Diameter ...



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