

build a wheelbarrow

Construct this model of a wheelbarrow and learn how it is used to carry heavy loads, using the elements of levers: fulcrum, effort and load. Discover the properties of second-class levers.

- How to carry heavy loads.
- What a second-class lever is.



build a letter scale

Construct a fully functional model of a letter scale and learn how small objects like envelopes and paper are weighed. Experiment and discover on your own the reasons why a scale might sometimes produce wrong indications.

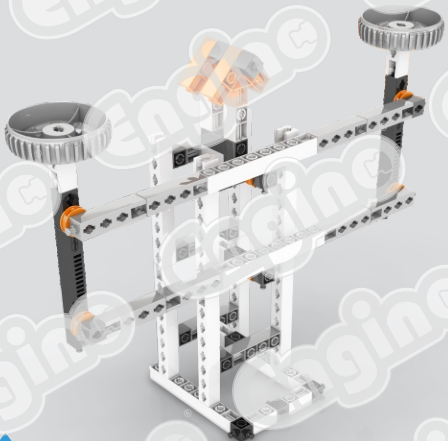
- How to weigh light objects.
- What are the reasons for weighing errors.



build a folding platform

This model of a folding platform is fully operational and will help you discover how several levers connected together create a linkage that helps us raise the platform. Experiment and discover how we can gain mechanical advantage using Levers.

- What a parallel linkage is.
- How levers and linkages work together.



build a parallel scale

This weight scale of parallel linkages will introduce you to the concept of linkages and help you understand how they work. Find out about parallel motion and how it is used to efficiently weight objects.

- What a linkage is.
- How parallel motion is created.

DISCOVERING STEM

Science • Technology • Engineering • Mathematics

MECHANICS

levers & linkages

Learn how Levers are used to increase a force for lifting heavy objects and how they can change the direction of motion. Find out how you can create models with complex motion by connecting many levers together and learn how these Linkages can be applied to various machines. Build 16 working models such as a seesaw, a movable weight scale, a wheelbarrow, a parking gate, a toy with moving figures, a pantograph and two types of linkages. You can find easy-to-follow building instructions for all models either online or in the booklet included. The booklet provides detailed explanations of the different scientific principles applied and incorporates innovative experimental activities for hands-on learning. A Quiz section is also available to challenge your newly acquired knowledge!

10 pages of theory and amazing facts!

7 pages of experimental activities!

4 pages of revision quiz!

1 page of step by step instructions!



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3D interactive instructions to download on your smart device

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Product Code: STEM01

Edition 3.0

Engino

16 models to build

9+ years

master engineers

15 online instructions

1 printed instructions

Discovering STEM

The purpose of STEM education - Science, Technology, Engineering and Mathematics - is to provide students with the necessary skills, knowledge and experience in order to cope with the technological challenges of the future. Modern pedagogical theories suggest that the study of engineering should be incorporated in all other subjects, starting from elementary level. DISCOVERING STEM series offers a practical solution for facing all these educational issues, aiding the teacher to engage students in STEM disciplines in a fun, exciting and interesting way! The educational packages are also ideal as a home learning tool! The series covers a broad area of subjects: Mechanics and Simple machines, Structures, Newton's Laws, Renewable Energy and even Programmable Robotics.

Brand AWARDS:



More models online

- A** Use your PC or tablet and go to the following link for more models:

www.engineo.com/instructions/stem01

- B** Download the app to discover step-by-step instructions in 3D view!

Engineo kidCAD (3D Viewer) app:



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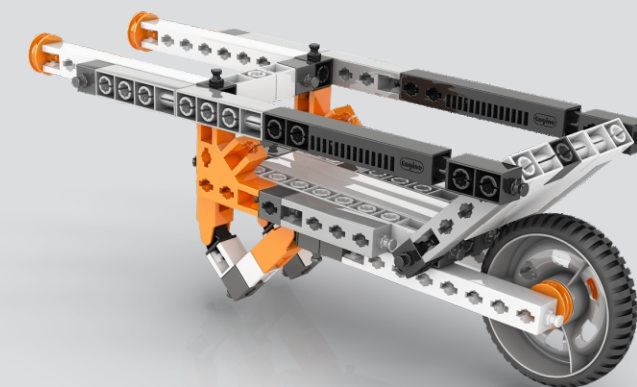
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