

Engino ENG-STEM40

Engino Simple Machines STEM Construction Kit (ENG-STEM40) User Manual

Model: ENG-STEM40 | Brand: Engino

INTRODUCTION

Welcome to the Engino Simple Machines STEM Construction Kit. This kit is designed to introduce users aged 9 and above to the fundamental principles of physics and engineering through hands-on construction. With this kit, you can build up to 60 different models, exploring concepts such as levers, pulleys, gears, axles, inclined planes, cams, and cranks. The Engino system promotes creative thinking and problem-solving skills, making learning about STEM subjects engaging and interactive.

SAFETY INFORMATION

WARNING: CHOKING HAZARD. This product contains small parts and is not suitable for children under 3 years of age. Adult supervision is recommended for all users, especially during assembly and disassembly, to ensure safe handling of components.

Keep all packaging materials away from children. Do not put parts in mouth or nose.

PACKAGE CONTENTS

Your Engino Simple Machines STEM Construction Kit includes the following:

- Engino building components for 5 different STEM sets, combined into one kit.
- Printed Instruction Manual for one model.
- Theory Book with scientific explanations.
- Experiment Book with hands-on activities.
- Access to a free 3D interactive building application (Engino kidCAD).
- Extraction tool for easy disassembly.



Figure 1: Theory and Quiz Books. These books provide detailed scientific explanations and experiments to enhance learning.

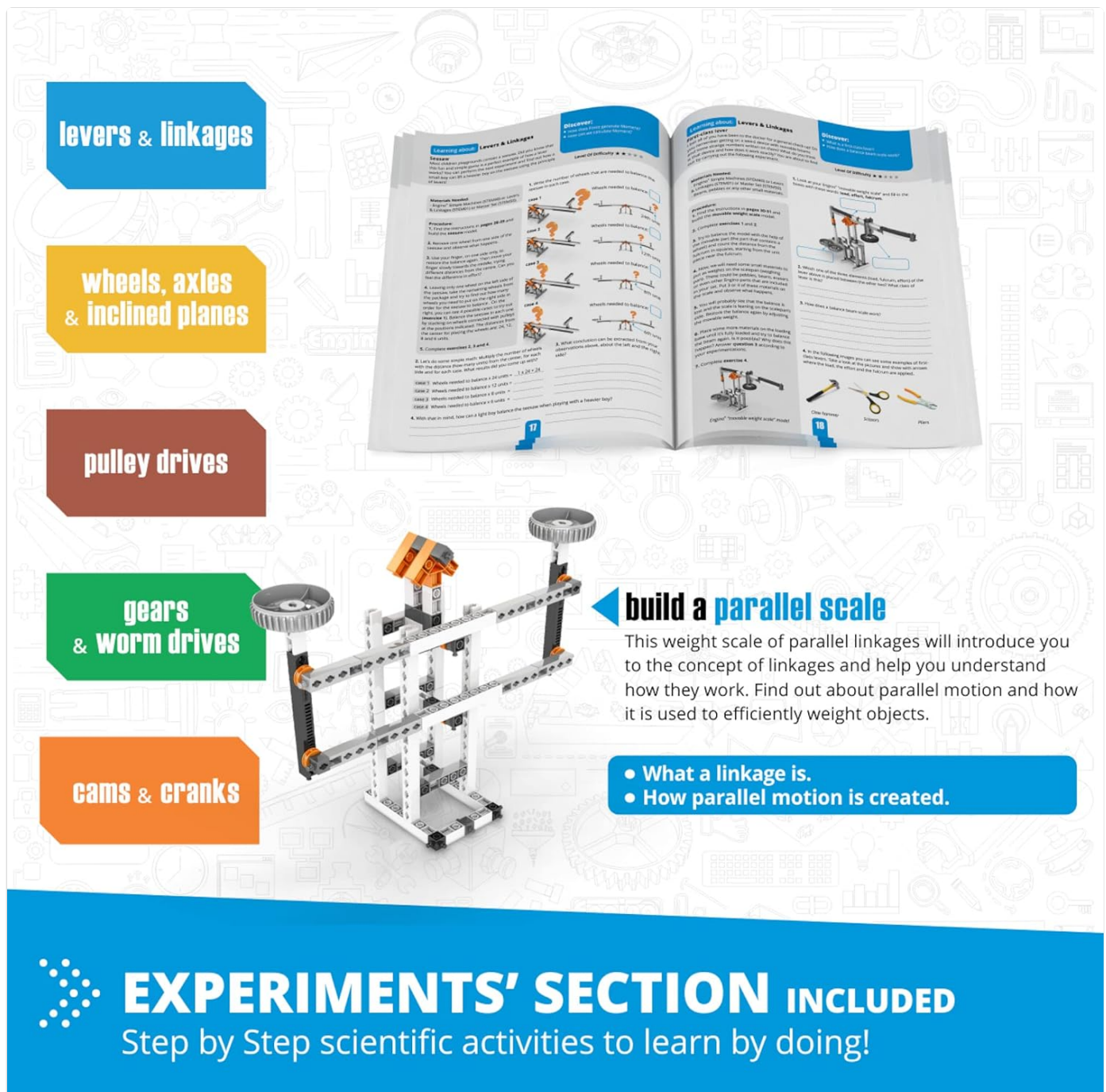


Figure 2: Experiments Section. Step-by-step scientific activities are included to facilitate learning by doing, such as building a parallel scale.

SETUP

Before you begin building, ensure all components are present and accounted for. Refer to the parts list in the included printed manual or the digital instructions.

Accessing Building Instructions:

While one model includes printed instructions, the kit allows for building 60 different models. Instructions for the remaining 59 models are available online in 3D interactive format or PDF.

1. **Scan the QR Code:** Locate the QR code on the product packaging or in the included manual. Scan it with your smartphone or tablet.
2. **Visit the Engino Website:** Alternatively, visit the official Engino instructions page for the STEM40 kit:
<https://files.engino.com/?STEM40>
3. **Download the Engino kidCAD App:** For an interactive 3D building experience, download the "Engino kidCAD" app

from Google Play or the Apple App Store. This app allows you to rotate models in 3D, zoom in/out, explode/implode views, and explore more models.

SCAN HERE

FOR ALL BUILDING INSTRUCTIONS
(3D & PDF formats available)

1
model

printed instructions
(included)

59
models

available online in 3D or PDF format

PRINTED INSTRUCTIONS INCLUDED

Figure 3: Accessing Instructions. Scan the QR code or visit the Engino website for comprehensive building guides.

Engino kidCAD
(3D Viewer)

GET IT ON
Google Play

Available on the
App Store

- **ROTATE IN 3D!**
- **ZOOM IN AND OUT!**
- **EXPLODE AND IMplode!**
- **FIND AND EXPLORE MORE MODELS!**

3D interactive instructions
to download on your smart device

FREE APP TO VIEW 3D MODELS

Figure 4: Engino kidCAD App. Utilize the free 3D app for interactive building instructions on your smart device.

OPERATING INSTRUCTIONS: BUILDING MODELS

The Engino system features a patented connecting system that allows for versatile and robust model construction. Follow the step-by-step instructions provided in the manuals or the 3D app for each model.

Key Building Principles:

- **Snap-Fit System:** Engino parts connect securely with a snap-fit mechanism. Ensure parts are fully engaged for stable structures.
- **Extendable Rods:** Combine two simple rod parts to create any desired length. Turn to lock and adjust.
- **Multi-directional Connections:** Engino components allow connections in multiple directions, enabling complex functional models.



Figure 5: Examples of Models. The kit allows for the construction of 60 diverse models, demonstrating various simple machines.

Disassembly with the Extraction Tool:

To disassemble parts, especially small or tightly connected ones, use the included extraction tool.

1. **Option 1 (Pop-out Locked Part):** Push the tool into the hole of the connected part to pop it out.
2. **Option 2 (Squeeze to Disassemble):** Squeeze the tool around the parts to gently separate them.

EXTENDABLE ROD:

By combining these two simple parts any length is possible!



Turn to lock and adjust length!

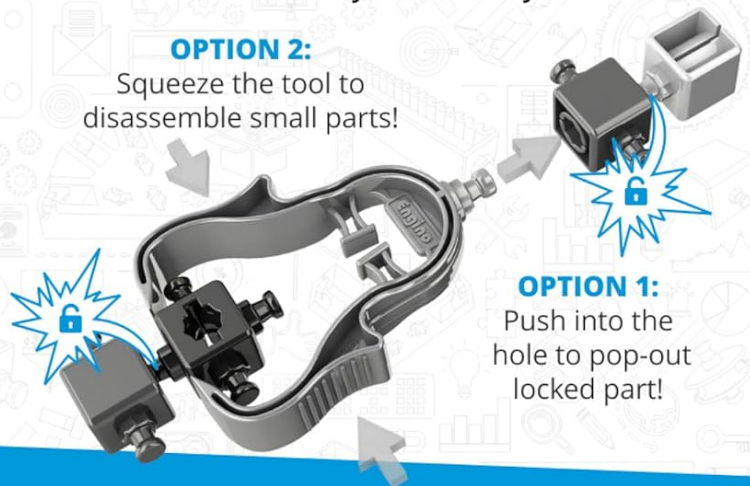
PATENTED CONNECTING SYSTEM:

With only a few snap-fit parts you can build fast and easy many different models!



EXTRACTION TOOL:

For easy disassembly!



ADVANCED SNAP-FIT SYSTEM

for more complex functional models...

Figure 6: Advanced Snap-Fit System and Extraction Tool. Learn how to connect and disconnect parts efficiently using the specialized tool.

MAINTENANCE

To ensure the longevity of your Engino Simple Machines STEM Construction Kit, follow these simple maintenance guidelines:

- **Cleaning:** Wipe parts with a damp cloth and mild soap if necessary. Avoid harsh chemicals or abrasive cleaners.
- **Storage:** Store all components in a dry, cool place, away from direct sunlight. The kit is designed for easy storage.
- **Inspection:** Periodically inspect parts for any damage or wear. Replace any broken components to maintain optimal functionality and safety.

TROUBLESHOOTING

If you encounter any issues while building or using your Engino kit, refer to the following common solutions:

Problem	Possible Cause	Solution
Parts do not connect securely.	Parts are not aligned correctly or not pushed in completely.	Ensure proper alignment and apply firm, even pressure until a click is heard or felt.
Difficulty disassembling parts.	Parts are tightly connected.	Use the provided extraction tool as described in the "Operating Instructions" section.
Model is unstable or falls apart.	Incorrect assembly or missing connections.	Double-check the building instructions for the specific model. Ensure all connections are secure.
Cannot access online instructions.	Internet connection issues or incorrect URL.	Verify your internet connection. Ensure you are using the correct URL: https://files.engino.com/?STEM40 . Try restarting your browser or device.

SPECIFICATIONS

- **Brand:** Engino
- **Model Name:** Simple Machines
- **Model Number:** ENG-STEM40
- **Minimum Recommended Age:** 9 years (108 months)
- **Material:** ABS Plastic
- **Color:** Multicolor
- **Educational Objective:** Engineering skills, Science, STEM learning
- **Number of Models to Build:** 60
- **Special Feature:** Easy to store, Advanced Snap-Fit System, Extendable Rods
- **Dimensions (Packaging):** 49 x 6.9 x 33 centimeters
- **Assembly Required:** Yes (for models, not the kit itself)
- **Battery Type:** No batteries required
- **Operation:** Manual
- **Included Components:** Instruction manual, theory book, experiment book, free app, extraction tool.
- **UPC/GTIN:** 756619011493, 793631639557, 084929772514, 782675422768

WARRANTY INFORMATION

Engino products are manufactured to high-quality standards. For specific warranty details, please refer to the information provided on the product packaging or visit the official Engino website. Keep your proof of purchase for any warranty claims.

CUSTOMER SUPPORT

If you have any questions, require assistance, or need to order replacement parts, please contact Engino customer support.

- **Website:** Visit the official Engino website for FAQs, support resources, and contact information.

- **Online Instructions:** For building instructions and educational content, refer to <https://files.engino.com/?STEM40>

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question