



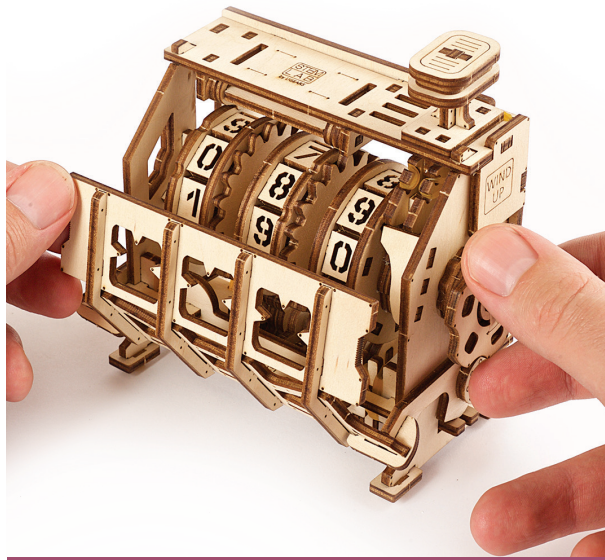
CURVIMETER

109
parts



- **Model Size:** 4.3x3.9x1.9 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 1-2 hours

The **Curvimeter** is a device that measures the length of curved lines and helps to calculate the distance between the points on a map more precisely than a ruler or a compass. You can rely on the curvimeter when planning a hike with your friends or a family trip. The device is especially useful when you have no access to any electronic gadgets or the internet.



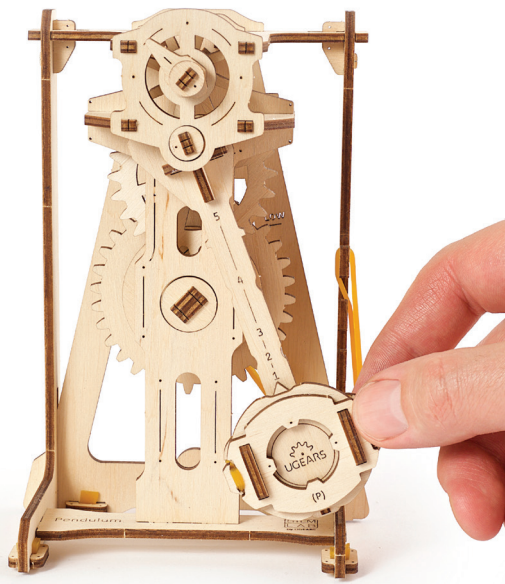
COUNTER

157
parts



- **Model Size:** 5.3x2.6x4.8 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 1-2 hours

The **Counter** is the mechanism, that registers repetitive actions. It is an integral part of a device called an "Odometer". The model has three cylinder gears with numbers from 0 to 9 and a Geneva Drive. These days, counters are used to count the number of passengers, visitors of different events, cars passing through certain check point, sets and scores in sport, items on a production line, etc.



PENDULUM

92
parts



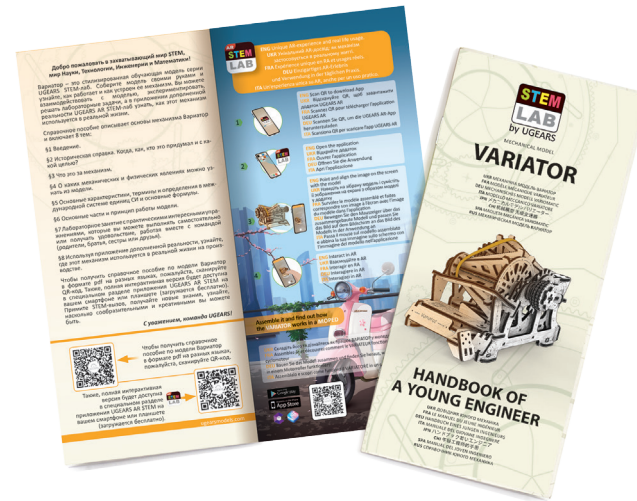
- **Model Size:** 4.5x3.3x6.6 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 1-2 hours

The **Pendulum** is one of the basic and most reliable time measuring mechanisms. Pendulums are mainly used in mechanical clocks as an element of a launch mechanism and the way to provide a steady rate. In the musical sphere, metronomes that have pendulums as their chief constructional element, help musicians practice playing to a regular tempo. Pendulums are also used in geological surveying, seismography, sports, and laboratory research in mechanics and physics.

STEM Lab: unique hands-on projects that encourage creativity, logic & experimentation for children and grown-ups

The model kit comes with a **QR-code** that will forward you to the learning guide about the mechanism with:

- the principal of its working
- the history of invention
- the main characteristics, formulas
- fun practical tasks



Scan QR-code to download AR-application!

Point your phone or tablet and align the image on the screen with the model. You can interact with the model on the screen, see the mechanism from different angles, and watch how the mechanism works in real life.

Educational collection STEM Lab from Ugears – new drive to learn more new things!

ugearsmodels.com

STEM
Science • Technology • Engineering • Math

Ugears STEM models are designed to suit different age groups with a special focus on learning component. The assembly of the model will be interesting and won't take much time.



- 1 Step-by-step illustrated assembly instruction manual.
- 2 Wooden details pre-cut with a precise high-tech laser in high-quality plywood boards.
- 3 Handbook of a young engineer.
- 4 Unique **AR-experience:** download **UGEARS AR App**, point and align the image on the screen with the model, interact in AR.

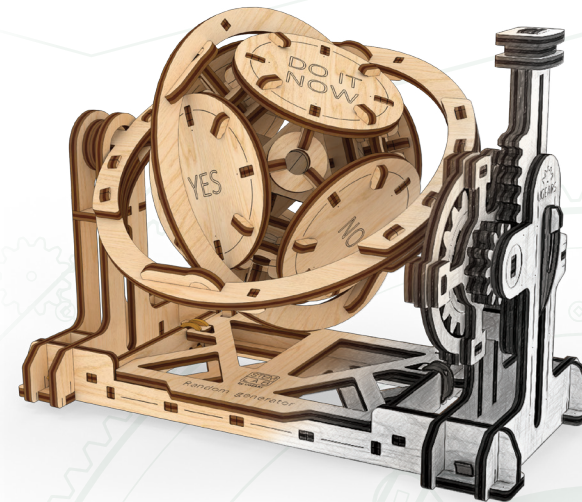
Start your own UGEARS STEM Lab collection today!

ugearsmodels.com

STEM
LAB
by UGEARS

Educational collection UGEARS STEM Lab

INTERACTIVE MODELS OF WIDELY-USED MECHANISMS



- Assemble the mechanism
- Scan QR-code to download a Pocket study guide
- Interact with the model via a special AR app from Ugears
- Solve interesting practical tasks

Magic. Motion. Mechanics.
Welcome to the world of **UGEARS!**
ugearsmodels.com

NEWEST



ARITHMETIC KIT 2-in-1

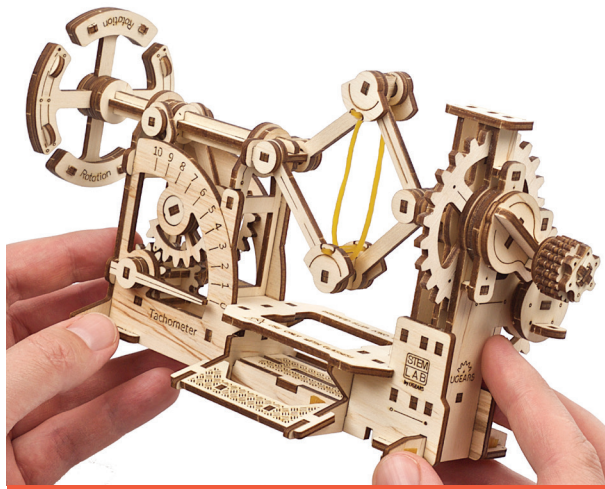
117
parts



- 1 Addiator size: 8.5x4.3x0.91 in
- 2 Multiplier size: 9.8x10x1.6 in
- Package size: 8.07x7.4x2.48 in
- Estimated time of assembly: 2,5 hours

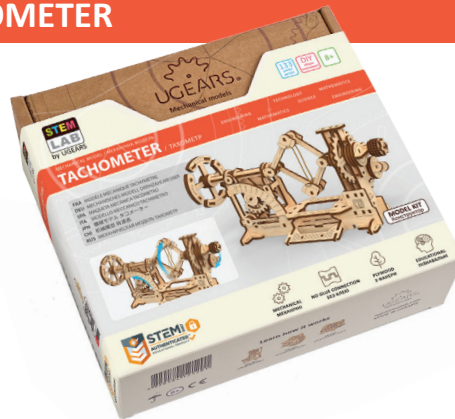
Arithmetic Kit consists of two models: A **Mechanical Addiator** and a **Mechanical Multiplier**. The Mechanical Addiator adds and subtracts numbers from 0 to 9. The Mechanical Multiplier multiplies and squares numbers from 1 to 12.

NEWEST



TACHOMETER

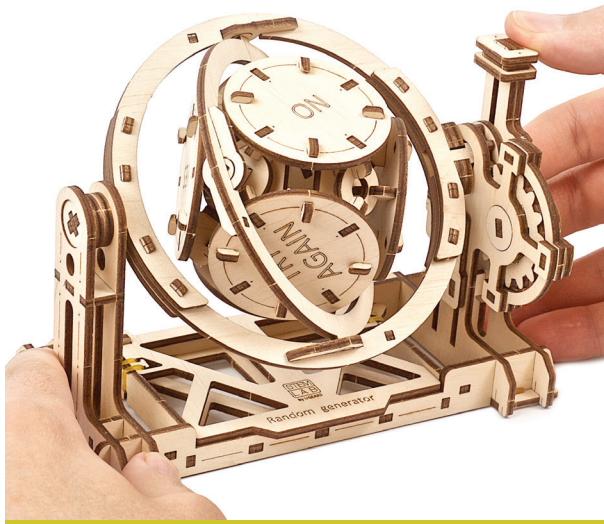
133
parts



- **Model Size:** 9.4x4.1x4.8 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 2,5 hours

The **Tachometer** 3D puzzle is a fully operational DIY wooden model of a tachometer, a device designed to measure the rotational speed of various parts in engines and other mechanisms. Connect the Tachometer to the Variator, creating a new mechanism.

NEWEST



RANDOM GENERATOR

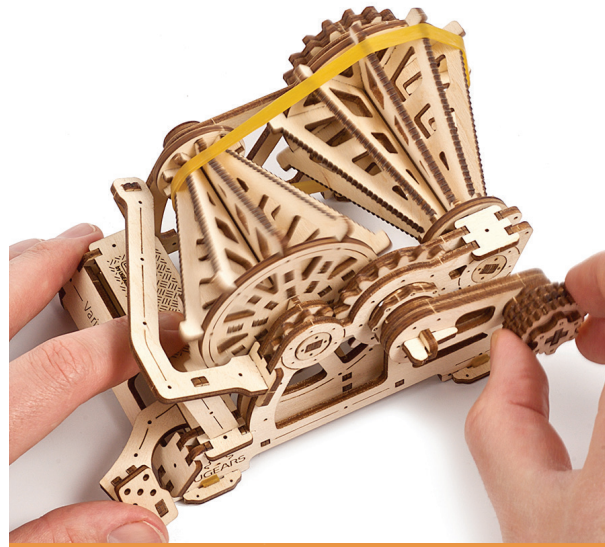
160
parts



- **Model Size:** 6.81x4.8x5.2 in
- **Package size:** 8.07x7.4x2.48 in
- **Estimated time of assembly:** 4 hours

The **Random Generator** is a device that generates random numbers and provides different random results based on probability theory. How it does this is exactly what the Ugears STEM model will demonstrate. The main element of the Random Generator's design is a cube with messages "YES", "NOT NOW", "TRY AGAIN", etc. To all the questions there is now an answer with Ugears Random Generator.

NEWEST



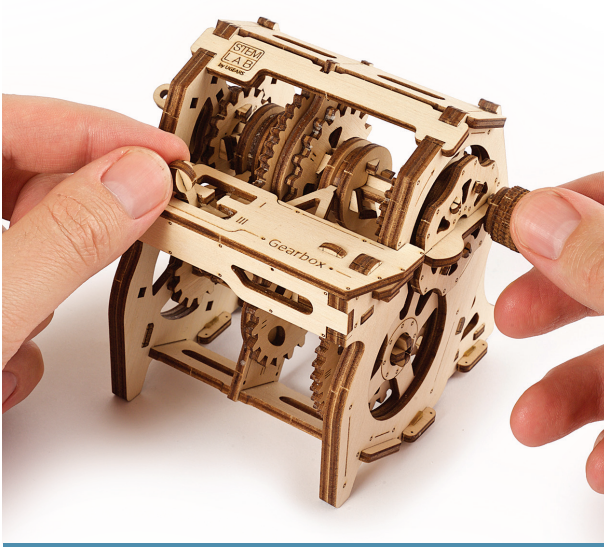
VARIATOR

104
parts



- **Model Size:** 6.6x5x4.2 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 4 hours

The **Variator** is a device that transfers and adjusts the engine torque by changing the ratio of gears. Variator is used in cars, motor scooters, snowmobiles, quadracycles, conveyors, metal-cutting machines, etc. With the Ugears Variator you can learn and comprehend one of the most important parts of a car without soiling your hands in machine oil!



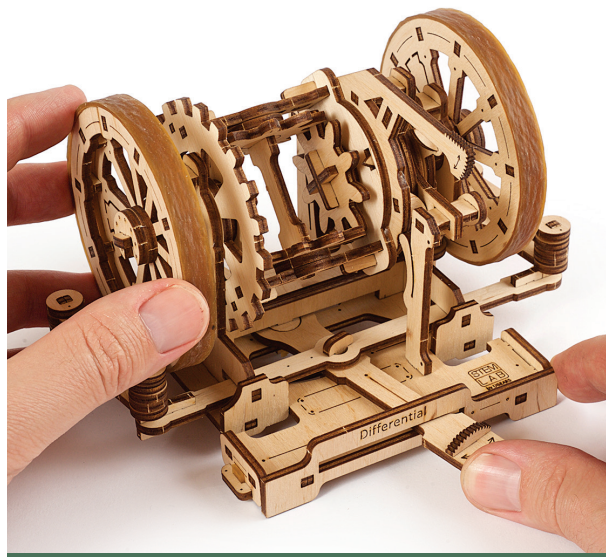
GEARBOX

120
parts



- **Model Size:** 5.1x3.9x4.3 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 1-2 hours

A **Mechanical Gearbox** is a reducer that provides speed and torque conversions from a motor to the driving wheels. After assembly, you can experiment with the Ugears manual Gearbox, by turns, choose I, II, III, or reverse.



DIFFERENTIAL

157
parts



- **Model Size:** 6.9x5.3x4.1 in
- **Package size:** 8.1x7.4x2.5 in
- **Estimated time of assembly:** 1-2 hours

The **Differential** allows the car to make turns without the wheels skidding, prevents wheel-slip, reduces tyre wear, and makes entering and going out of turns easier for the driver. Having assembled the Differential, you can unblock it pushing the lever in position 1 (Up) and set both wheels in motion by rotation of the drive gear or the wheel.