

The Engineering Fundamentals range is designed to enable students to gain an understanding of the fundamentals of engineering by the process of learning via hands-on experimentation.

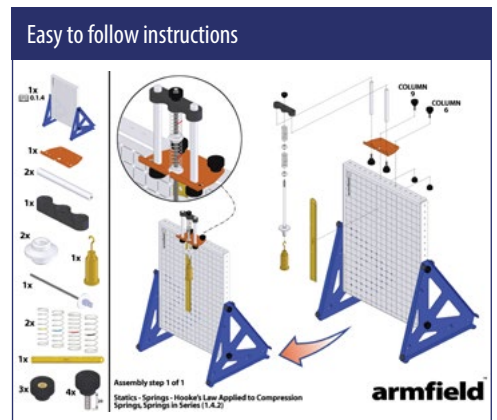
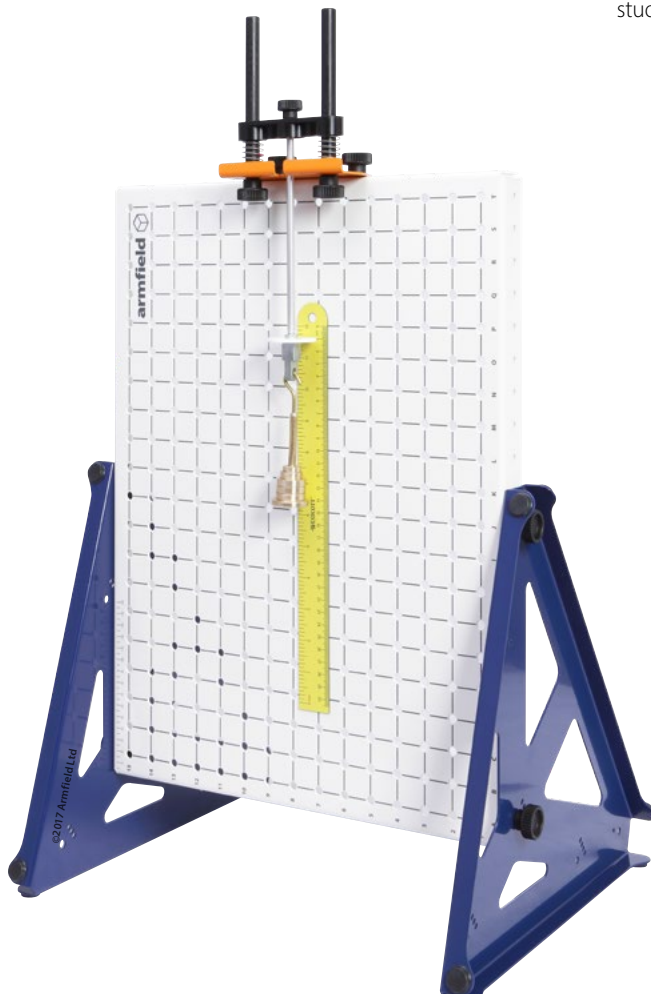
The modular hands-on tray based system is supplied in conjunction with a multifunctional Base Unit enabling the student to conduct their own experiments in subjects such as Statics, Dynamics, Mechanisms and Kinematics.

Each kit is supplied with a highly visual user friendly operational guide, enabling the student to understand the theory of the subject by the application of practical experimentation.

AN INNOVATIVE HANDS ON MODULAR SYSTEM DESIGNED TO ENABLE INVESTIGATION AND THE UNDERSTANDING OF ENGINEERING PRINCIPLES

Description

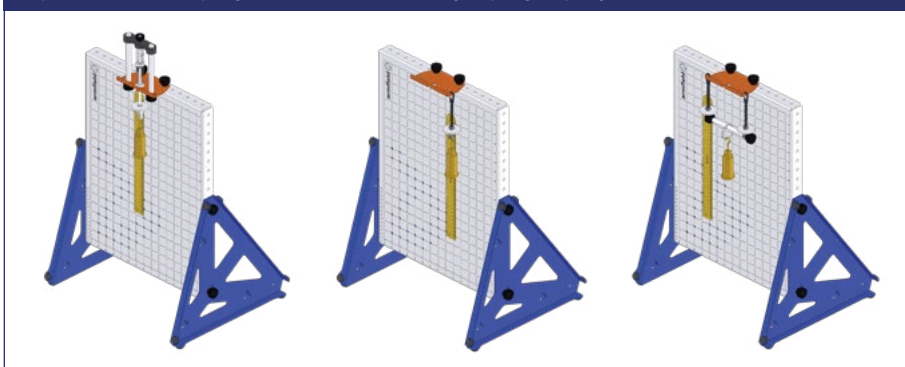
The EF-1.4 - Springs experiment kit enables students to learn about Hooke's law when applied to both extension and compression springs. Students can experiment with a single spring, springs in series or in parallel. A variety of compression springs are included to enable students to learn about spring rates.



1 tray supplied with EF-1.4



Experiments shown: Springs in Series, Extension - Single Spring & Spring in Parallel, full list on reverse



High quality materials



Features / benefits

- ▶ Applied student learning via building and experimentation
- ▶ Supplied with a detailed instruction manual, covering the theory of Springs including multiple practical experiments designed to further develop the students' understanding in this field
- ▶ Hands-on learning
- ▶ Clear and concise pictorial assembly instructions enhance the learning experience
- ▶ Multiple experimental capability per self-contained kit
- ▶ Toolless assembly

Requirements

Scale

EF-BU

Experiment tray scale



EF-BU scale



EF-WS scale



- ▶ EF-BU on which to build the experiment from the tray components
- ▶ Level and stable work surface to mount the EF-BU upon. The optional EF-WS is ideal for this if no suitable desk or bench is available.

Experimental content

Hooke's law applied to compression springs, single spring
 Hooke's law applied to compression springs in series
 Hooke's law applied to compression springs in parallel
 Hooke's law applied to extension springs, single spring
 Hooke's law applied to extension springs in series
 Hooke's law applied to extension springs in parallel



Workstation EF-WS
 (Trays and base units sold separately)

Overall dimensions

Tray	
Length	0.430m
Width	0.312m
Height	0.080m
Packed and crated shipping specifications	
Volume	0.2m ³
Gross weight	5Kg

Essential accessories / equipment

- ▶ EF-BU Base Unit

Related products

- ▶ EF-BU Base Unit

Statics Experiments

- ▶ EF-1.1 Engineering Fundamentals Forces
- ▶ EF-1.2 Engineering Fundamentals Moments
- ▶ EF-1.3 Engineering Fundamentals Beams
- ▶ EF-1.4 Engineering Fundamentals Springs
- ▶ EF-1.5 Engineering Fundamentals Torsion

Dynamics Experiments

- ▶ EF-2.1 Engineering Fundamentals Friction
- ▶ EF-2.2 Engineering Fundamentals Simple Harmonic Motion
- ▶ EF-2.3 Engineering Fundamentals Rotational Friction
- ▶ EF-2.4 Engineering Fundamentals Potential and Kinetic Energy
- ▶ EF-2.5 Engineering Fundamentals Centrifugal & Centripetal Force

Mechanisms Experiments

- ▶ EF-3.1 Engineering Fundamentals Cam, Crank and Toggle
- ▶ EF-3.2 Engineering Fundamentals Mechanisms
- ▶ EF-3.3 Engineering Fundamentals Additional Mechanisms
- ▶ EF-3.4 Engineering Fundamentals Bar Linkages

Kinematics

- ▶ EF- 4.1 Engineering Fundamentals Pulleys
- ▶ EF- 4.2 Engineering Fundamentals Gears
- ▶ EF- 4.3 Engineering Fundamentals Drive Systems

Options

- ▶ EF-WS Workstation
- ▶ EF1-Spares Spares

Ordering specification

- ▶ Hooke's law guide block
- ▶ Hooke's law spring end
- ▶ Hooke's law link bar
- ▶ 250g weights set on hanger
- ▶ Magnetic ruler, 300mm / 12"
- ▶ 2 X compression spring 0.05n/mm (red)
- ▶ 2 X compression spring 0.07n/mm (yellow)
- ▶ 2 X compression spring 0.09n/mm (blue)
- ▶ 2 X compression spring 0.11n/mm (black)

Ordering codes

- ▶ EF-1.4 - Springs Experiments
- ▶ EF-BU - Base Unit
- ▶ EF-WS - Workstation (optional)

Armfield standard warranty applies with this product

Knowledge base

- > 28 years expertise in research & development technology
- > 50 years providing engaging engineering teaching equipment

Benefit from our experience, just call or email to discuss your laboratory needs, latest project or application.

An ISO 9001:2015 Company



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Aftercare

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 Training
 Service and maintenance
 Support: armfieldassist.com