

WELCOME to our PRIMARY STEM & BASIC TECHNOLOGY catalogue.

This catalogue contains only a select number of our kits & other products to give an idea of what products we stock that may be suitable for students.

Scorpio Technology stocks a wide variety of technology and solar kits (including for solar model boat & car challenges), physics apparatus, technology and electronics components, clock making parts, and tools. Please check the comprehensive "Product Catalogue" or the various catalogues on our Website.

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SCORPIO KITS

INTRODUCTION TO EI	LECTRIC CIRCUITS KITS	PRICE	(EACH)
NO SOLDER REQUIRED A great way for students to be introduced	to a hands-on approach to electric circuits.	1 - 19	50+
	MORSE CODE KIT Code: MORSE Morse code is a form of binary on-off code that has been used for communication since 1844. The kit provides a basic Morse code set – a tapping key, a buzzer, an indicator light and a battery holder. This kit is also an example of a simple circuit. When you have two sets, by using longer lengths of hook up wire, you have the ability to "talk" (communicate) with a friend at another table or in another room.	\$14.66	\$14.20
	INTRODUCING SIMPLE CIRCUITS Code: SIMPCIRC INTRODUCING SIMPLE CIRCUITS (CLASS PACK OF 10) Code: SIMPCIRC10 The SIMPLE CIRCUIT kit allows you to introduce students to electricity. By using the supplied components students can experiment with basic circuits, simple circuits, as well as learning about series and parallel circuits.	\$13.91 \$127.81	\$13.48
	SIMPLE CIRCUITS EXTENSION KIT 1 Code: SIMPCEXT1 Additional electrical components - fan, motor with wires and mini buzzer, - to connect to the components used in the INTRODUCING SIMPLE CIRCUITS kit to experiment further with basic electric circuits. A metal clamp has been provided to raise the fan above the desk / platform to allow the fan to freely spin around.	\$8.76	\$8.76
S Jaggaga G	SIMPLE CIRCUITS EXTENSION KIT 2 - EM Code: SIMPCEXT2 Using some of the components from the INTRODUCING SIMPLE CIRCUITS kit, this extension kit allows you to build your own basic electromagnet. This extension kits supplies the following items: 1 x 4AA Battery Holder, 1 x Nail, 1.5 metres hookup wire and 15 paper clips. Together with the INTRODUCING SIMPLE CIRCUITS kit, this kit is perfect for both classroom and home-based schooling. Batteries not included.	\$2.44	\$2.44
	se INTRODUCING SIMPLE CIRCUITS kit (SIMPCIRC) + SIMPLE SIMPCEXT1) + SIMPLE CIRCUITS - EXTENSION KIT 2 - EM	\$22.18	\$22.18

THE BLUE BROTHERS - THE FAMILY OF 4 KIDS

NO SOLDER REQUIRED

A great way for primary school students to be introduced to a hands-on approach to technology & solar projects. All mechanical and electrical components, as well as the platform, are supplied. These kits have been designed so that the students not only assemble the vehicles, but also provide opportunities to investigate areas of science such as electric circuits, solar energy and velocity.

(Most hand tools required are available to purchase separately from Scorpio Technology).

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	BLUEY Code: BLUEY The youngest member of the Blue family who's not quite sure what it wants to be yetso we're leaving it to you to make it more colourful! *Legend: B, C	\$5.40	\$5.22
	BREEZY Code: BREEZY Every family has an airhead – Breezy wants to be a pilot, but he's not there yet! A basic four-wheeled vehicle that uses a battery operated motor-driven propeller to make it move. This vehicle can also be used to experiment simple concepts of electric circuits in physics! *Legend: B, C, D	\$10.34	\$10.05
	BLUEBIRD Code: BLUEBIRD The hoon in the Blue family – racing everywhere he goes! A four-wheeled powered vehicle at its simplest which can help introduce students to basic electric circuits. *Legend: B, C, D	\$8.80	\$8.53
	BLUE SKY Code: BLUESKY This boy's the environmentalist in the family! A four-wheeled solar powered vehicle at its simplest. This vehicle illustrates a basic electric circuit where electricity is generated from a solar panel to power motor. These cars can be used to perform basic experiments relating to solar energy. *Legend: B, C, D	\$21.01	\$20.39
	SOLAR WHEELS Code: SW70D Pack of 10 wheels if replacement wheels are required for the Blue Brothers kits or for students to design their own vehicle. Suitable for use with 2.5mm wide steel rods (shafts) / axles.	\$17.03	\$17.03

LEGEND: * A=Solder B=No Solder C=Mechanical D=Electrical E=Electronic F=PCB G=Programmable H=Alternative Energy



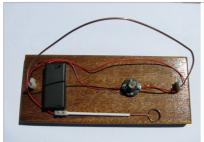


INTRODUCTORY KITS	S	PRICE	(EACH)
(NS: No Solder)		1 - 49	50+
electrical components are supplied in the Technology). Students are given a design of their project. Materials for the body/pl home.	tudents with a more involved approach to assembling our technology kits. Only the rese kits. Wires, adhesives and tools are not supplied (but can be purchased separate not brief from the teacher and expected to design the "body" or "platform" then constructed the teacher or even from materials the students the following kits are excitable in both a colder and no colder version.	ely from Sco uct a worki	orpio ng model
To tailor it for the varying needs of stude	ents, the following kits are available in both a solder and no solder version.		
	BALANCE PLANE Code: BALAN Code: BALAN-NS In this project a beam is used, with an electric motor and a propeller on one end and a battery holder on the other end. It is placed in a balanced state, on a vertical upright. This beam is designed to be rotated about its central point, in a horizontal plane, by the motor-driven propeller.	\$6.08 \$6.91	\$5.92 \$6.72
	NOTE : The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires. *Legend: A/B, C, D		
	CAPTIVE AEROPLANE Code: CAPTIVE Code: CAPTIVE-NS A small aeroplane is built from plastic or wood. It is driven by a propeller, which is powered by a small electric motor. The aeroplane is suspended from an overhead point and flies in a circle. The basic model is very simple to construct with a lot of scope for combining two different areas of study: technology and art (with a bit of woodwork thrown in). The components and ideas can be used to make other devices such as a witch on a broomstick or a flying pig (see if pigs can really fly?) NOTE: The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires.	\$5.54 \$6.39	\$5.39 \$6.20
	*Legend: A/B, C, D PROPELLED CAR Code: PROPC Code: PROPC-NS	\$6.20 \$7.03	\$6.02 \$6.84
	This vehicle is a simple four wheeled vehicle with a difference – motive power is a motor driven propeller. The propeller is driven by a small battery powered electric motor **NOTE: The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires. Hours to construct: 5 - 7 *Legend: A/B, C,D		
	SOLAR CAR (BASIC)		
	Code: SOLARB Code: SOLARB-NS	\$23.31 \$24.17	\$22.50 \$23.49
	The SOLAR CAR - BASIC is a simple four-wheeled vehicle, driven by an electric motor, powered by a solar panel. Power to the wheels is transferred from the motor by gears. This car will run on a smooth level surface from 25% sunlight upwards. The solar panel consists of one large section producing 2.0 Volts and 0.9 Amps of electricity, under a 100% sunlight condition. Suitable for introducing the concept of solar power to students.		
	NOTE: The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires. Legend: A/B, C, D, H		

For a full selection of Scorpio Technology's Introductory and Intermediate kits, see our comprehensive online "Product Catalogue". A select number of our "solder only" kits can be easily converted to a no-solder version.

Full details can be found in the "Teaching Units" section of our website.

Legend: A/B, C, D, H



STEADY HAND GAME - NO SOLDER Code: STEADY-NS

The **STEADY HAND GAME** is a simple game for students to make and assemble that illustrates simple electric circuits.

The aim of the game is for the student to avoid touching the wire with the handheld loop. Touching the wire with the loop will result in the globe lighting up.

Hours to Construct: 2-4 *Leaend: B. C.D



WHIRLY

Code: WHIRL Code: WHIRL-NS

This model consists of a single rotating beam that has an electric motor with a propeller, mounted at one end. A battery holder is on the other end of the beam and counter-balances them. The beam is mounted on an "axle" (shaft) at the beams' centre of gravity.

When the WHIRLY is switched on, the motor spins the propeller, thus rotating the beam around its axle.

NOTE: The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires.

Hours to Construct: 5-7 *Legend: A/B, C,D

INTERMEDIATE KITS

(NS: No Solder)

PRICE (EACH)

\$9.36

\$10.10

\$31.73

\$9.09

\$9.81

\$31.09

\$8.25

\$6.34

\$7.05

\$8.00

\$6.14

\$6.84

The following selection of kits provide students with a more involved approach to assembling our technology kits. Only the mechanical and electrical components are supplied in these kits. Wires, adhesives and tools are not supplied (but can be purchased separately from Scorpio Technology). Students are given a design brief from the teacher and expected to design the "body" or "platform" then construct a working model of their project. Materials for the body/platform may vary and may be provided by the teacher or materials the student can source from home. To tailor it for the varying needs of students, the following kits are available in both a solder and no solder version.

DRAGSTER

Code: DRAG Code: DRAG-NS

The DRAGSTER is a simple motorised vehicle, for students to design and construct. It is powered by a small electric motor, and students are able to select the vehicle's gearing, dependent upon the speed and acceleration

The vehicle has been designed to provide an easy introduction to electro-mechanical devices. A number of **DRAGSTERs** can be used to compete in a class environment. This puts the additional requirement on students to look into the effects of gearing on speed and acceleration, and to consider these factors in their vehicle design.

NOTE: The No-solder version has a motor and switch with wires pre-soldered to them, with twist-on connectors to join the wires.

Hours to construct: 10 - 14 *Legend: A/B, C, D

NOTE: Available soon - Balsa sheets & squares



INTRO SOLAR BOAT

Code: SBTINT

This kit contains all the components needed to construct a functional solar powered boat propulsion system. This unit includes instructions on how to assemble these components together with suggested ideas for hull construction in order to build a complete basic boat that works. By building and experimenting with this boat students will gain a significant insight into renewable energy in the form of electricity from solar, basic electricity, motors and energy conversion from solar power to motion of their

Hours to construct: 3 - 5

*Legend: A, C, D, H

LEGEND: * A=Solder B=No Solder C=Mechanical D=Electrical E=Electronic F=PCB G=Programmable H=Alternative Energy



Useful kits to help introduce solar	energy and renewable resources to your students. Projects suit small group work.	PRICE
	SOLAR HOUSE KIT Code: SOLHOUSEK The SOLAR HOUSE kit is designed to introduce students to the concept of solar power and how solar power can be used to run electrical appliances and fittings in a house. The house is open on one side for easy viewing. This kit provides the: • corflute panels, cloth tape and plan for making the house • solar and electrical components to simulate a solar panel running a ceiling fan and 2 downlights, and includes the wiring	\$48.83
against the same of the same o	*Legend: B, C, D, H	
	SOLAR HOUSE PROJECT – COMPONENTS KIT Code: SOLCOMP The SOLAR HOUSE PROJECT - COMPONENTS kit is designed to introduce students to the concept of solar power and how solar power can be used to run electrical appliances and fittings in a house.	\$26.11
	This kit provides the solar and electrical components to simulate a solar panel running a ceiling fan and 2 downlights: • Solar panel with wires • Electric motor and propeller • 2 LEDs, a switch and wiring These can be fitted to a model solar house of your own design. *Legend: B, C, D, H	
	SOLAR HOUSE PROJECT - CORFLUTE Code: SOLCORHOUSE This kit allows you to make a model solar house (open on one side for easy viewing) to use together with the SOLAR HOUSE PROJECT - COMPONENTS kit (which is used to simulate a solar panel running a ceiling fan and 2 downlights). Includes the corflute panels, cloth tape and plan for making the house. NOTE: Solar panel sold as part of SOLAR HOUSE PROJECT - COMPONENTS (SOL-COMP) or SOLAR HOUSE KIT (SOLHOUSEK). This is an illustration of a completed house using the corflute. *Legend: B, H	\$26.11
	PROJECT BOARD KIT Code: SOLPROJBRD A corflute project board that allows students to observe electricity produced by a solar panel. For use with the components supplied in the SOLAR HOUSE PROJECT - COMPONENTS (SOLCOMP). This kit can be used as an alternative to the complete Solar House. *Legend: B, C, D, H	\$3.40

SOLAR CHALLENGE KIT		PRICE (EACH)	
SOLAR CHALLENGE	: NII	1 - 49	50+
Kit designed to help your students to	make competitive boats and cars for participating in the Model Car and Boat Ch	nallenges	
	JUNIOR SOLAR BOAT Code: SBTJUN This kit contains most of the components needed to construct a functional solar powered boat for participating in the Model Solar Boat Challenge – Junior Division. The kit provides a motor that complies to the regulations, low friction propeller shaft, 2 propellers (2 and 3 blade) to experiment with and the coreflute platform. This unit includes instructions on how to assemble these components together. By building and experimenting with this boat students will gain a significant insight into renewable energy. *Legend: A, C, D, H	\$31.99	\$31.30

PRIMARY CLOCK MAKING

The making of clocks in the classroom is very versatile. It provides a lot of scope, as it can be used in almost all subjects and tailored to most age and skill levels. Scorpio Technology stocks a wide selection of Hour & Minute Hands, Second Hands, Clock Numerals and Hanger Brackets, allowing students to make simple clock faces using their own art work (e.g. using CDs or even old traditional vinyl records as the clock face base). For more advanced clocks, students can use quartz clock movements. A choice of different shaft lengths is available.

(See "Clock Components" for more details).

Clock making develops the students' imagination, research, design, planning and manufacturing skills, incorporating a variety of materials. Students can develop their own design or follow the teachers' guidelines. An added bonus is that it is a cost-effective unit of work which provides a useable end product.



CD CLOCK Code: CDCLOCK

- Design & make your own working clock using readily available items such as CDs (not supplied), a student's own art work on cardboard backing, etc.
- This kit is supplied with a MSSS Quartz Clock Movement, Hanger Bracket, CD Washer, Second Hand and a choice of Hour & Minute hands (as specified)
- Please specify choice of Hour/Minute hands from 270 Black or Gold or 2212 Black or Gold (the 2212 can be trimmed down to the desired length)
- Clock numerals can be purchased separately to finish off your CD CLOCK
- Suitable Ages 10+.
 \$10.75 each (1 49 sets)
 \$9.89 each (50+ sets)



LPCLOCK Code: LPCLOCK

- Design & make your own working clock using readily available items such as old vinyl LPs, a student's own art work on cardboard backing, etc.
- This kit is supplied with a MSS Quartz Clock Movement, Hanger Bracket, Second Hand and a choice of Hour & Minute

hands (as specified below)

- Please specify choice of Hour/Minute hands from 270 Black or Gold (NOTE: The centre hole of the vinyl LP needs to be enlarged slightly to fit the Movement shaft).
- Clock numerals can be purchased separately to finish off your LP CLOCK
- Suitable Ages 10+.
 \$10.75 each (1 49 sets)
 \$9.89 each (50+ sets)



BLANK CLOCK FACE - PLYWOOD - 25CM DIAMETER Code: CLPLYF



Blank plywood round for your students' next clock project. Suitable for LP CLOCK components. Students can decorate the clock face to individualise their work. 25cm diameter blank plywood clock face.

8mm centre hole. 3mm thick. \$5.00 each (1 - 49) \$4.55 each (50+)

CLOCK NUMERALS

Quantity:	NUMA / NUMR	NUMD / NUMB		
1 - 19	\$3.31 set	\$2.32 set		
20 - 49	\$3.19 set	\$2.21 set		
50 - 99	\$3.08 set	\$2.07 set		
100 & over	\$2.94 set	\$1.96 set		
Finish: Gold (G) or Black (B) (in all sizes and styles)				

When ordering, state TYPE, FINISH and SIZE: If not specified, NUMA-15mm Black will be supplied.

These are moulded plastic numerals, approx. 1 - 1 ½ mm thick with self-adhesive and a backing sheet. If required, apply a commercially available adhesive.



NUMD (Set of 12 dots) Size 4.5, 8 & 10 mm



NUMB (Set of 12 bars) Size 10, 12 & 19 mm

17411270 1135689

NUMA (Arabic set of 12) Size 10, 12, 15, 20, 25 mm



NUMR (Roman set of 12) Size 10, 12, 15, 20, 25 mm







MAKE YOUR OWN CLOCK KIT

Code: KJ8996

- This educational clock is designed to stimulate a child's curiosity about the concept of time
- Easy to assemble with little or no adult assistance. Includes wind-up pendulum based mechanism
- No batteries required
- 195mm (dia.)
- Ages 6+.

\$16.95

LEMON CLOCK

Code: FSG3306

- Simply add your own lemon to turn this kit into an amazing lemon-powered clock
- Discover the science of batteries (it has none)
- Only uses the chemical power of the lemon

\$10.30



STEM AND GENERAL EDUCATIONAL KITS

CODE GAMER

Code: SN620141

This Thames & Kosmos kit introduces you to programming in a fun, step-by-step way. An Arduino-compatible gamepad connects wirelessly to your tablet. Using the gamepad and four interchangeable sensor modules, you play through a video game app on your tablet. In each level of the game, you have to learn a piece of the Arduino programming language and how to use it in order to solve puzzles and challenges and move forward in the game. In this way, you progressively learn the basics of coding. Soon you will be able to write programs on your computer using the four sensors and invent new applications.



This kit includes a 64-page, full-colour experiment manual that allows you to follow instructions to create cool projects such as a light-sensitive drawer alarm and a LED disco light that reacts to the movements of your fingers. Learn to code by playing a video game!

GAMING: Connect the physical and digital worlds! Use the gamepad to play through 15 fun game levels on your tablet. Plug one of the four sensorbots into the gamepad to activate its special powers.

CODING: Solve puzzles and challenges in the game to learn the Arduino programming language.

MAKING: Write your own programs and develop new applications for the sensors. Apply your new programming knowledge to cool projects!

Includes Arduino-compatible microcontroller (with Bluetooth), cable, rotary control wheel, circuit board, gamepad housing, two push buttons, motion sensor, temperature sensor, sound sensor, light sensor, parts for projects, CodeGamer App.

Requires a tablet or smartphone running iOS or Android®.

Recommended ages: 10+. \$215.00



PHYSICS PRO (V2.0)

Code: SN625314

A Thames & Kosmos STEM kit allowing you to conduct 17 experiments building small models and then build 14 larger models in a series of workshops.

Build some spectacular models and devices, such as a wind tunnel, pneumatic shocks, and a hydraulic lift. Begin your study of more advanced topics in physics, including fluid dynamics, energy, oscillation, hydraulics, and Pneumatics. Investigate how air and water rest and flow, what they can carry and how they move. Learn why a streamlined shape lets a car drive faster and how power plants convert a current of water into electrical current.



Structure and Properties of Matter Forces and Interactions Matters and its interactions Motion and Stability: Forces and Interactions

Energy







PATHFINDER & OTHER WOODEN MECHANICAL KITS

	ITEM NAME	CODE	SPECIFICATIONS/DESCRIPTION	PRICE
Canada da Vani Canada Maria Can	DA VINCI CATAPULT	WM6703	 See how far you can hurl clay balls & other objects with your catapult! Designed by Leonardo da Vinci, but never constructed as a full scale machine Pre-cut natural wood & plywood pieces Detailed instruction manual Ages 8+ 	\$35.00
	DA VINCI WOODEN BRIDGE	WM6718	 The Leonardo Emergency Bridge One of Leonardo Da Vinci's many designs Bridge designed to be set up and dismantled easily by armies Dimensions (approx.): 22.5cm x 10cm 	\$21.50
	STRAUSS TRUNNION BASCULE WOODEN BRIDGE	WM6708	 A replica of the Joseph Strauss design that was made all over North America in the 1920's and 1930's. Great to use for school bridge studies and to learn more about interesting linkages. Sized to fit wooden train sets, this bridge is an elegant reminder of the cool truss bridges that used to be built years ago and are still in use! This kit will bring a new level of sophistication to playing with wooden cars and trains. Gives you the chance to be creative! 	\$20.00
	SWING BRIDGE	WM6709	 Truss design Once assembled, turn the handle to swing the centre of the bridge 360° Designed to fit wooden train sets Natural plywood pieces Comprehensive instruction manual included Requires 1 – 2 hours to assemble 	\$28.00
	HYDRAULIC GEARBOT	WM6723	Hydraulic operated & geared catapult Relatively easy to assemble Instruction manual included information about the different gears Can be used to launch small objects (popcorn, marshmallows, etc.) "2016 Toy of the Year Award" for building kits (Creative Child Magazine) Ages 8+	\$40.00
	HYDRAULIC MINI EXCAVATOR	WM6716	Build your own working hydraulic machine Teaches principles of levers & hydraulic power Mechanism includes 2 hydraulic cylinders & can be adjusted to provide either digging or scooping action Pre-cut wooden pieces Includes instruction manual Model size (approx.): 9cm x 32cm x 40cm (extended) RUN OUT MODEL	\$23.64
	HYDRAULIC MINI MACHINES KIT	WM6706	This kit contains 4 hydraulics kits in one mini-Mega box of fun. Kits included are: Mini Scissor Lift, Mini Platform Lifter, Mini Cherry Picker, and Mini Excavator.	\$49.50





HYDRAULIC ROBOTIC ARM	WM6710	Robotic articulated arms can be found in factories all over the world Model uses a battery of independent hydraulic circuits to provide absolute control over the arm pincers grip, lift, twist, lower and release Integrate the arm into other construction sets while learning the basics of hydraulics and robotics Contains 66 pieces Model size: 200mm x 600mm x 340mm Made of sturdy pre-cut plywood with an MDF base it is easy to assemble and designed to give our budding engineers a start Ages: 8+	\$41.15
MEGA BUILDER CRANE WOODEN KIT	WM6730	Assemble a working crane model complete with levers to lift and move objects with this Mega Builder Crane wooden kit.	\$42.95
ROMAN CATAPULT WOODEN KIT	WM6731	The Roman catapult improved on the medieval design by the addition of torsion springs. Originally invented by the Greeks over 2000 years ago and widely used by the Romans in battles and sieges, the Catapult had many different methods of firing. During the Roman Empire the catapult was refined and improved. This model represents a smaller version of a common catapult style of the time. Based on drawings and written records, this Catapult re-creates the way in which tension powered siege engines worked and can fire the small clay balls (included) and other soft projectiles over 15 feet!	\$39.00
ROMAN ONAGER WOODEN KIT	WM6732	The Roman Onager catapult is a version of a Mangonel which uses a sling bucket to launch. The Onager was a powerful siege engine used by the Roman army during the late Roman Empire in battle and to lay siege to city walls and fortifications in their territories around the Mediterranean Sea and beyond. Its name comes from the Latin word for 'wild ass' – when it launched its payload it would have had a strong recoil kick resembling the native donkey of Persia (who knew?). This Onager re-creates the way in which torsion-powered siege engines worked. It can fire a small clay ball (included) and other soft projectiles over 15 feet! Like all Pathfinders' kits, it is a fun and interesting kit to build and it really works! Model size 40cm long x 28 cm high.	\$39.00
TROJAN HORSE	WM6733	Ancient Greek legends have many references to the Trojan Horse – a huge wooden horse that was left in Troy – with warriors inside. When it was brought into the walled city, the warriors came out (late at night when everyone was asleep) and took over and opened the doors to the entrances – allowing the Greek warriors hiding in the area, outside the city's walls, to overrun the city. Based on drawings and written records, this Trojan Horse model allows you to re-create one of the most epic tales of ancient Troy – although on a much smaller scale. Suitable for beginner model maker. Ages: 8+	\$54.00



SKY SURFER AIRPLANE LAUNCHER

WM6735

The worlds coolest airplane launcher. from Pathfinders. tested in science centers across this nation and with kids of all ages - has arrived!

Launch planes from 3 to 16 metres (approx.) – and more (especially if you are standing near a cliff, and the plane goes over...)!

Launch planes in a repeatable and consistent way - perfect for budding engineers (and even real ones) to test and evaluate their designs!

Build takes about 30 minutes.

Includes 20 page booklet with plane designs, ideas, paper and card.

Suitable ageswh: 14+.

41cm long.



\$39.95

HEEBIE JEEBIES CREATOR WOODEN SETS

DYNAMO GENERATOR - FREE ELECTRICITY KIT

Code: HJ1891

Build your own 10cm tall hand-crank wooden generator. Turn the handle and watch the LED light up (no battery or solar panel required)!

This kit works on the basic principles of electromagnetic induction. A great STEM project.

Contains 37 pieces. Recommended for ages 8+ . \$29.95

SCRIBBLEBOT - CREATOR

Code: HJ1894

Build your own drawing robot which uses vibration and spin generated by a motor, to create your works of art! This kit is easy to build with easy-tofollow illustrated instructions. Fantastic STEM project for ages 8+.

The height and angle of the coloured pencils can be adjusted to make differ-

ent patterns.

Includes: baseplate, cover, motor with 3 arm supports, 3 pen holders, 3 brushes, 3 pens, nuts & screws. \$24.50

WIND WALKER WIND POWERED STRANDBEEST

Code: HJ1803

The original Wind Walker Strandbeest, Rigide Properans, was designed by Theo Jansen in 1995 and used the wind flowing through its turbines and the amazing engineering design, to power it.

This kit version is a great STEM project for kids ages 8+. Contains 130 pieces and, this too, moves by wind power.

\$29.95







CLIP CIRCUITS

STARTER LAB 14 EXPERIMENTS

Code: HJ020

- An Electronic Kit For Children!
- Easy to build electronics kit all the components simply click together!
- No soldering required!
- Using both Parallel and Series Circuits, all pieces of the Kit are colour coded and marked to show how the current travels.
- 14 experiments in all one for each day of the fortnight!
- Suitable for ages 7+

\$17.00



ELECTROLAB 80 EXPERIMENTS

Code: HJ0080

- Kit features components that clip together, no soldiering required.
- All pieces are colour coded and marked to show how current travels.
- The graphics on each component show its electronic symbol.
- The included 'easy to use' 26 page instruction manual details 80 educational experiments.
- Experiments include doorbells, alarms, flash lights and more.
- Easy to build electronics kit for ages 7 to 12
- Requires 4 AA batteries (not included)

\$36.05

NOISY LAB

Code: HJ0021

- · Each piece has a function: switches, speakers, battery packs etc. They are all colour coded and numbered to easily identify each.
- Graphics on each component show its electronics symbol
- Create sounds and an assortment of sound effects that you can control using a variety of switches.
- Kit for ages 7 to 12
- Component clip together
- Requires 2 AA batteries

\$20.39

FM RADIO SNAP-ON ELECTRONICS PROJECT KIT

Code: KJ8978

- Build a fully functional selectable FM radio with this simple snap on kit.
- Allows kids to learn about electronics whilst having fun.
- All parts simply clip together and are easily taken apart to be reused for other experiments over and over again.
- 2 X AA batteries required (not supplied).
- Ages 7+

\$9.95

DISCONTINUED - RUN OUT STOCK

ADVANCED LAB 180 EXPERIMENTS

Code: HJ0180

- The Advanced Lab kit comes with instruction manuals for 180 experiments.
- Recommended age from 7 Years+ with Adult Supervision
- No electronic experience necessary
- · Includes an easy to use instruction manual
- Powered by 4 x AA Batteries (not included)

\$58.97



HELICA FAN CAR

Code: HJ0031

- Each piece has a function: switches, motors, battery packs etc. They are all colour coded and numbered to easily identify each. Graphics on each component show its electronics symbol, to help illustrate how the current travels though the circuit you
- · Easy to build electronics kit for ages 7 to 12
- · Component clip together
- 4 Electronics Experiments
- Requires 2 AA batteries

\$21.60



AIRBOAT

Code: HJ0030

- · Each piece has a function: switches, motors, battery packs etc. They are all colour coded and numbered to easily identify each.
- Easy to build electronics kit for ages 7 to 12
- Component clip together
- 4 Electronics Experiments
- No electronics experience necessary Requires 2 AA batteries (not included)

\$20.39

INTELLIGENT ROVER ROBOT Code: HJ1100

Over 100 experiments including alarms, flashing lights and sounds. Also features infrared control and radar detector, allowing the creation of remote control vehicles which can intelligently avoid obstacles. includes

- "easy to use" 20 page manual.
- Easy to build electronics kit for ages 7 to 12
- Component clip together
- 100 Electronics Experiments
- Requires 4 AA batteries \$82.35





SNAP CIRCUITS - CURRICULUM STYLE

ELECTRONIC EXCELLENCE

We just love systems. Circuits which look like circuit diagrams, symbols printed on components, easy locking mechanisms and projects which work! Plus manuals written in plain English. In essence learning about electricity without the hassles.

What better way to establish a rock solid knowledge of electrical principles than by being led step by step along a gradual concept developing path towards mastery with or without the teacher!

What is the difference between **SNAP and CLIP CIRCUITS?**Well not a lot really apart from some cosmetic labelling of the componentry. **SNAP CIRCUITS**, however is more of a traditional educational approach with specific learning outcomes stated in the form of objectives for every project in the included manuals. For example OBJECTIVE: "To show how a fuse is used to break all current paths back to the voltage source". The next experiment will have another objective and so on. In addition the optional Student and Teacher guides test and reinforce key concepts along the way.

The special interest kits for both products are invaluable as a source of enrichment and extension.

THE SNAP and CLIP CIRCUITS SYSTEMS will revolutionize how electricity is taught in schools. **Systematic**. That's the way to go so that nothing is missed. **WHY NOT TRY ONE!**

EXTREME EDUCATIONAL 750 EXPERIMENTS Code: SC750R

- The Model SC-750R is an in-depth exploration of the electronic components included with the SC-750 Snap Circuits Extreme.
 Ideal for students to grasp the basic principles of electronics.
- · Includes 138 pages of educational 13curriculum.
- · Includes real world applications and problem solving quizzes.
- The Teacher Guide includes quizzes for students to test their knowledge.

\$245.00



EXTREME EDUCATIONAL 750 EXPERIMENTS WITH CASE

Code: SC750RC
As SC750R but with hard storage case.
\$320.00



SNAP CIRCUITS JR. 100 EXPERIMENTS

Code: SC100

 Snap Circuits makes learning electronics easy and fun! Just follow the colorful pictures in our manual and build exciting projects such as a flying saucer; alarms; doorbells and

much more!

- All parts are mounted on plastic modules and snap together with ease.
- · No tools required.
- Includes Projects 1-101 manual.

\$60.00

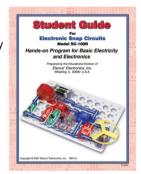


STUDENT GUIDE FOR SC100

Code: SC753294A

- Snap Circuits Student Guide for SC100/SC100R
- Junior Student Guide has 48 color pages. For an enhanced learning experience because it teaches electronics. Includes quizzes to verify learning.

\$15.95

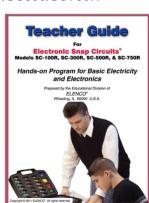


TEACHER GUIDE FOR SC100/SC300/SC750R

Code: SCG753290

- Complete Student Guide Models *SC300*, *SC500*, *SC750*.
- Enhance your learning with detailed explanations and quizzes.
- 137 full-color pages covering all 750 Snap Circuits projects!
- Ideal for ALL Snap Circuits models

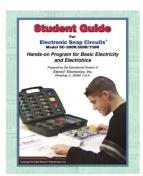
\$10.95.



STUDENT GUIDE FOR SC300/SC750

Code: SCG753307

- Complete Student Guide Models SC300, SC500, SC750.
- Enhance your learning with detailed explanations and quizzes.
- 137 full-color pages covering all 750 Snap Circuits projects!
- Ideal for ALL Snap Circuits models.







SNAP CIRCUITS - SPECIAL INTEREST KITS

DELUXE SOUND AND LIGHT COMBO IN CASE

Code: SCC350

- · Build over 350 exciting projects!
- Keyboard with optical theremin
- · Contains over 65 parts, and colour changing LED!
- · Features include: Sound energy demonstration: echo effects: infrared detector, strobe light, Strobe integrated circuits (IC) and much more!
- Suitable for ages 8+
- · Requires 4 x AA batteries (not included).

\$215.95

MOTION

Code: SCM165

- **Snap Circuits Motion** contains over 50 parts and over 165 projects to complete. All motion and physics focused. Experiment with gears ratios using various gears and pulleys.
- Experiments include: Color changing lighted fan, Air "fountain", Motion Detector etc.,
- The project manual includes large color illustrations and simple directions for each project.

\$129.95

SNAP CIRCUITS DELUXE CASE Code: SNAPCASE7

- · Heavy duty plastic case with 2 custom printed foam inserts for housing Snap Circuit components and parts
- Makes identifying missing parts much easier
- · Also a separate small case to hold the smaller loose parts.

LIMITED STOCK ONLY \$79.95

SNAP CIRCUITS GREEN - ALTERNATIVE ENERGY

CODE: SCG125

Learn about energy sources and how to think green. Build over 125 projects using the flexibility of our award-winning Snap Circuits®. Have loads of fun learning about environmentally-friendly energy and how the electricity in your home works. Includes full-color manual with over 100 pages and separate educational manual which explains all the forms of environmentally-friend-

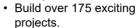
ly energy including: geothermal hydrogen fuel cells wind solar tidal hydro and others. Contains over 40 parts. No batteries required! Features: Hand Crank Solar Cell FM Radio **Energy Compartment Rechargeable Battery** Windmill Clock Analog Meter.

\$149.95

LIGHT

Code:SCL175

Watch and be amazed at what your music can do with the new Snap Circuits LIGHT . Connect your ipod or any MP3 player and enjoy your music as the lights change to the beat.



- All parts are mounted on plastic modules and snap together with ease.
- Contains over 55 parts to build more than 175 projects.
- · No Tools required.

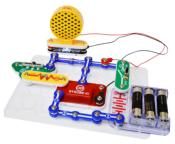
\$129.95

STROBE LIGHT AND SOUND

Code: SCP14

- Adjustable-speed strobe light with soundeffects.
- 14 additional projects
- Suitable for ages 8+
- Requires 3 x AA batteries (not included).

\$36.00



COMBO PACK - UPGRADE KITS & COMPUTER INTERFACE KIT

Code: SCUC70/73

- · Triple combo pack.
- Contains Computer Interface Kit CI-73, UC-70 for upgrade from SC-300 to SC-750 & UC-50 kit for upgrade from SC-300 to SC-500
- The CI-73 Computer Interface kit allows the SC-300 or SC-500 set to interface with a computer! With this module, you will learn about and use an oscilloscope and spectrum analyzer, as you build over 73 BONUS PROJECTS using your Windows-based PC (32 projects require the
- Comes with all of the interface parts you need and the software. Great for introducing electronics through a computer. Acts as a scope and allows you to see the signals in the circuit.



(NOTE: This software is not compatible with a MAC. However a similar, non-EL-ENCO product software version exists for this product).

LIMITED STOCK ONLY \$100.00



SCIENCEWIZ KITS

A great choice for mastering science. Award winning kits by Dr. Penny Norman. Superb manuals (40pp) which develop concepts in a systemic way while reinforcing the Scientific Method. The included material will ensure that your classes will be up and running with minimum preparation. Recommended for Primary School students.

MAGNETISM

Code: SW7801

This should be one of your child's first science kits. The large, color-coded magnets should be played with at an early age. The first 15 activities explore which metals stick to magnets, magnetic poles, attraction and repulsion, magnets through materials, and temporary magnets. The kit includes high quality, color-coded, ceramic magnets.

Activities in the first part of the book

- Draw with iron filings
- Discover what sticks to magnets
- Levitate and bounce rings
- Make a duck swim
- Create a temporary magnet and much more...

Sometime between second and third grade, children should revisit this book.

repeat their favorite activities, and do the more advanced projects in the later sections such as constructing a compass; exploring compass directions and discovering how motors work.

Requires one D cell battery (not supplied).

\$36.00

PHYSICS

Code: SW7806

24 Activities

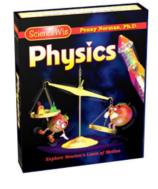
- · Launch bottle rockets
- Perform tricks with inertia
- Stay in motion with a floating hover puck
- Zoom a jet car
- Build your own spring meter
- Spin water upside down
- Assemble and use a balance scale
- And much more....

\$36.00

CHARGE Code: SW7814

Build 6 different devices. Complete 15 Activities with these devices

- Spew a glitter fountain
- Make your hair stand on end with electrostatic CHARGE!
- Generate large sparks with an electrostatic generator
- Spin an electrostatic motor
- Explore & detect plus & minus charges
- Propel objects with an electrostatic generator \$36.00





Bonus Projects! Spin motors and pinwheels Light lights & buzz buzzers

18 Activities and 4

ELECTRICITY

Code: SW7800

- Send coded messages & test what
- conducts · PLUS make a glow-

ball, solve circuit mysteries & construct a light dimmer.

\$36.00

LIGHT

Code: SW7802

25 Activities

- · Split light into a cascade of rainbows
- Make a kaleidoscope
- Mold lenses
- Make a microscope and telescope
- Capture a shadow
- Construct a pinhole camera
- Bounce, bend and blend light
- Play the "I Spy" game with mirrors
- Solve filter puzzles
- · Requires a 1.5 V battery (not supplied)

ENERGY

Code: SW7805

22 Activities

- Build a solar car
- Launch a supercapacitor car
- Make an electric car
- Spin a flywheel generator
- Build a battery to light an LED
- Do a kinetic chain reaction
- Store potential energy on your
- Discover how solar cells work
- Focus the sun's energy with lenses.

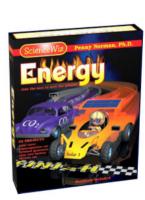
\$36.00

INVENTIONS Code: SW7901

4 Major projects to build

- A spinning motor
- A clicking telegraph
- A light flashing generator
- A real radio.

\$36.00









SCIENCEWIZ KITS - GAMES AND PUZZLES

COOL CIRCUITS

Code: SW7850 40 challenges:

Lay down a puzzle card, solve the challenge by making a loop, and watch the board light up!

Cool Circuits[™] has 40 different challenges ranging from student to expert. Can you solve them all?



Comes with light up board, 8 fluorescent, 3D puzzle pieces and 40 challenge cards.

This puzzle emphasizes spatial reasoning and abstract thinking. Ages: 8+ \$39.95

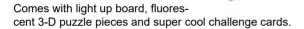
COOL CIRCUITS OVER THE TOP

Code: SW7858

New challenges, includes 40 unique, advanced puzzles.

The addition of orange and blue barriers creates a NEW level of challenges!

Can you solve them all?



This puzzle emphasizes spatial reasoning and abstract thinking. Ages: 8+ \$39.95



Code: SW7857

Introducing an enticing new twist on Cool Circuits . . . Lay down a puzzle card, add on the bright orange barriers, solve the challenge by making a loop, and watch the board light up! 40 different challenges ranging from student to expert.



Features:

Includes a set of 40 NEW challenges An intriguing new release that adds orange barriers which limit your choices but require enfolded solutions.

Comes with light up board, 6 barriers, 8 fluorescent 3-D puzzle pieces and 40 challenge cards.

This puzzle emphasises spatial reasoning and abstract thinking.

Can you solve them all? Ages 6+. \$39.95

MOTION - FLIGHTS, ROCKETS AND RACERS

THE AERO CAR

Code: HJ1800

- · Build an air powered car
- Get a second car and race your friends
- · Learn about air compression
- · Easy to build
- 16cm long
- Ages 8+

\$25.75



LIQUIFLY

Code: LQ5000

(pump not included)
Flies over 30 meters

\$29.50

★Safe ★Simple ★Sensational ★Detailed instructions



AIR POWER ENGINE CAR

Code: FS631

- No motors or batteries needed
- Built in pump & pressure meter
- When the air chamber the compressed air can be released & drive the vehicle up to 50 metres in 35 seconds

\$39.95



TIN CAN CABLE CAR Code: FSG3358

Recycle a soft drink can to make an unique able car install it in your bedroom & watch it run to & fro across the room.

\$29.85



ROBOTICS

ROBOTICS: SMART MACHINES Code: ROBSMARTM

- Students can have a simple & fun, customizable introduction to robotics
- · Build 8 motorised machines controlled by programs and an ultrasonic sensor
- · Programs can be coded using an

easy, visual programming app on a tablet or smartphone, which connects to the robot models vis a wireless Bluetooth connection

- The ultrasonic sensor works on the same principal as a sonar and robots can be programmed to behave based on the feedback coming from the ultrasonic sensor
- Requires a tablet or smartphone running iOS or Android with Bluetooth support
- Contains 194 building pieces
- 64 page, full-colour step-by-step illustrated manual included.

\$180.95





FRILLED LIZARD ROBOT

Code: FS892

Artificial intellient (ai) super lizard robot that is programmed with interesting interactive modes. Mode 1 - it is a freely moving & detects all around to avoid obstacles, Mode 2 - follow me like a pet

Fast running legs, wagging tail & a

frill that pops up & shakes

- Recommended Age: 10yrs+
- 2015 Educational Toy of the Year Award \$59.00

Code: SN567009

Comes complete with 32-page manual in sturdy storage case.

TIN CAN ROBOT

Code: FSG3270

- Recycle a can as the body of this cute little robot he walks along in a silly motion
- · Maybe use a VB can to give him a reason to walk a little funny

\$33.95



14-IN-1 EDUCATIONAL **SOLAR ROBOT**

Code: FS615

- An amazing solar powered robot that can be transformed into 14 different robot models
- Powered by the sun requires no batteries





T4 TRANSFORMING ROBOT

Code: FS617

The kit will transform into 4 different robots using interchangable pieces you can make a walking robot, rhino beetle, T-Rex, and a drill vehicle. Powered by the sun.

\$30.40





KIDS FIRST ROBOT ENGINEERING

Thames & Kosmos fun & educational kit for young budding scientists and engineers. Build simple, non-motorised models of robots and learn about simple machines and gear trains.

Ages: 3+ \$79.00

GREEN POWER AND ALTERNATIVE ENERGY SCIENCE KITS

WIND POWER

Code: SN627929

A fourth generation wind turbine kit from Thames and Kosmos!

Wind is one of the most promising sources of clean, renewable energy available today. With this kit, you can assemble a realistic wind turbine complete with electric generator and adjustable rotor blades that are designed with complex aerodynamic curves to look and work like modern-day wind turbine blades. Then, conduct experiments to optimize the turbine's performance by adjusting the angle of the blades and discover how to use the wind turbine to light up an LED and charge a rechargeable battery. Convert the generator into an electric motor and assemble a small electric car to demonstrate a tangible application for the stored electricity.



The full-color, 32-page manual offers illustrated instructions and scientific information that explores the different types of wind turbines and windmills, the history of this technology, and how wind energy can be used to power homes and electric cars. Ages: 8+Requires: 2 x AA Rechargeable batteries. \$83.00





SOLAR MECHANICS

Code: SN665068

Build more than 20 solar-powered models to learn about how solar cells convert energy from sun-

light into mechanical energy with this Thames & Kosmos educational kit. Conduct experiments with the solar cell to see how different placement angles, different light levels, different sources of light, and different loads affect its operation.



Learn about solar power in a fun, hands-on way.

This kit includes a unique single-piece solar motor that is composed of a photovoltaic cell and an electric motor joined together in one compact unit. With this solar motor, you can power dozens of electric vehicles and devices. Build models including cars, trucks, planes, windmills, waterwheels, robots, and other vehicles.

The 60-page, full-color experiment manual offers step-by-step illustrated instructions for the building projects and experiments.

Ages: 8+ STOCK ALMOST GONE - DISCONTINUED BY \$59.95 MANUFACTURER

TRANSPARENT SOLAR CELL DOLLY

Code: 100013C

Discover how sunlight can be converted to energy Experiment with changing the angle of the solar panel, adding weight, running it uphill, and running it on rough & smooth surfaces



Good for standard motion labs as well as lessons on energy and alternative energy

Runs on solar power or batteries; switch to solar drive, battery drive, or battery charge!

Adjustable panel

Includes Teacher's Guide & reproducible Student Handout 12cm long. Battery not included. \$55.00

WINDMILL GENERATOR

Code: FSG3267

- · Use the wind to light up the night
- · Learn how to harvest the power from the wind
- · Requires a recycled soft drink bottle
- · No batteries required

\$25.95



4M - SOLAR PLANE MOBILE

Code: FSG3376

Easy to assemble with no batteries required.

Green Science Model.
Build this solar powered aircraft
mobile. Take it out in the sunshine and
watch it glide around.

Ages 8+. \$29.95



HYDROPOWER

Code: HYDROP

- · Award winning STEM kit
- Discover the power of water and build a watermill, sawmill and hammer mill to harness the energy of moving water
- Investigate the real life applications of moving water such as hydroelectric dams to produce electricity
- Construct a hydroelectric power station to generate electricity and light a LED
- 12 experiments
- 32 page manual
- · Suitable for ages 8+

\$69.95

4M ECO-TECH BULB

Code: FSG3426

Power up this ingenious overhead lamp with gravity to light up your surroundings. You can also bring it with you and crank the handle to create a dynamo torch.

Contains 1 set plastic parts, 1m rope, 7 screws, 1 set of foam strip and detailed instructions.

Required, but not provided in this kit: a small cross head screw and plastic bottle.

Ages 5+.

\$30.95



WIND TURBINE

Code: FSG3378

- Teaches how vital renewable energy technology works
- Watch the turbine catch the wind's energy and turn it into light!
- 34cm blade span (when constructed)
- Ages 8+

\$29.50



SALT WATER ENGINE CAR KIT

Code: FS752

This is an environmentally friendly car engine Just add a few drops of salt water to start running the car's engine See how a V8 engine works \$35.00



FORCES, ENERGY AND MOTION

ROMAN ARCH

Code: EMAR Force & geometry combine to build an ingenious structure. \$52.00



STEM SIMPLE MACHINES ACTIVITY SET

Code: LER2824

- Explore 6 simple machines with hands-on activities and experiments
- Build and use tools for amazing discoveries
- Boost brains into high gear and design solutions for real-world problems
- Measure, record and compare data to draw conclusions
- Includes 10 double-sided activity cards for hands-on learning
- Comprehensive activity guide with reproducible materials included
- 19 piece set
- Suitable ages 5+

NEWTON'S FIXED ANGLE FAN CART

Code: 3568-00

Ideal for displaying Newton's laws of motion, force, acceleration, and mass in action.

Easy to use, making it perfect for demonstration of these principles in any classroom

Comes with removable sail, to display action-reaction and to control motion, as well as battery clips.

Shows the impact of different net forces on acceleration.

Requires one or two AA batteries (not included). With teacher's guide

\$56.00

DISCOVER PHYSICS STEM KIT

Code: SN5723

This Wonders of Learning set provides a captivating insight into a variety of scientific ideas and theories about the properties of matter and energy. Kit includes a 32 page reference book, wall chart and a Pressure-powered car experiment kit. \$24.00





AIR + WATER POWER

Code: SN555001

With this Thames & Kosmos kit, build 15 models powered by air and water pressure to learn about the laws of physics. Build two different air-and-water-powered

systems: water-jet propelled cars and

hydro-pneumo (which simply means air pressure and water pressure) powered engines. The hydro-pneumo system uses a self-contained air-and-water turbine system as a motor.

Ages: 8+ \$69.95

FAN CAR

Code: FANCAR

Designed to examine Newton's Laws of motion, inertia, acceleration and action / reaction

Demonstrate what happens when sail is added or removed when fan is switched on

Features adjustable / removable

Dimensions: 180mm x 150mm x 200mm.

Teaching Unit included.

4 x AA batteries required (not included).



INCLINED PLANE

Code: PLANEINC

Ideal for demonstrating friction, acceleration, work, potential energy and vector components of force

Smooth wooden plane 600 x 80mm hinged to the base at one end.

Provided with a pulley for force

with scale pan & weight. Supplied with 3 friction boards, plastic cart and angled meter.

Dimensions: 645 x 125 x 400mm. Weight: 2kg

(Some assembly required. Instructions included).

NEWTON'S CRADLE

Code: PH0349ECB

Demonstrates Newton's Third Law. Some assembly required.

(Item supplied may vary from illustration) \$33.00



KIDS FIRST INTRO TO ENGINEERING

Code: SN576002

Intro to Engineering welcomes young children to the field of engineering with 25 experiments and building projects in five sections. Suitable for ages 5 - 7. By engaging in hands-on activities, children will learn how engineers apply their scientific and technical knowledge

to design machines and devices.

Teaches engineering fundamentals with step-by-step, hands-on experiments and building projects.

Start by learning some engineering basics with experiments on levers, forces, and pulleys. Build simple devices using these basic components. Move on to explore engineering on land. Investigate engineering with air (and in the air). Experiment with engineering in water and in your own home

Complete with a 48-page guidebook.





ELECTRICITY AND MAGNETISM

LEMON CLOCK

Code: FSG3306

- Simply add your own lemon to turn this kit a into an amazing lemon-powered clock
- Discover the science of batteries (it has none)
- Only uses the chemical power of the lemon

\$10.30



MAGNETSCIENCE

Code: FSG3291

- This KidzLabs kit contains a super magnet set that can be transformed to perform 10 fun experiments and games
- Make a super power horse shoe magnet or a magnet wand
- So many great ways to experiment with magnets
- Ages 8+

\$27.75



MAGNETIC WAND

Code: EM0555-01

Permanent wand moulded in plastic.

Price per magnetic wand only (not as per illustration).

Colour: Blue \$5.00



Code: EM0555-06

Set of 6 permanent magnet wand moulded in plastic. Multi-coloured.

Limited stock.

\$28.00



MAGLEV TRAIN MODEL

Code: FSG3379

4m Eco-Engineering Green Science Model. Discover how super-fast maglev trains work with this amazing maglev model.

The model train zooms smoothly along its special track using the power of magnetism. \$25.95



MAGNET SET

Code: FS019

- 8 pieces
- · Great introduction to magnets
- Ages 6+ \$11.85



DISCOVER ELECTRICITY & MAGNETISM STEM KIT

Code: SN5724

This Wonders of Learning set provides a captivating insight into a variety of principles of electricity and magnetism and how we have harnessed electromagnetism to create some of the everyday devices we know so well.



Kit includes a 32 page reference book, wall chart and an electric circuit experiment kit.

\$24.00

ELECTRICITY & MAGNETISM STEM KIT

Code: SN620417

With this Thames & Kosmos kit conduct more than 60 electrifying experiments with electric circuits and magnetic contraptions to learn about electricity and magnetism, and how these two fundamental properties are closely related. Children can safely and



easily experiment with electric current and magnetic fields using the colorful snap-together blocks and components in this handson kit.

Ages: 8+ \$85.95

LIQUID CONDUCTIVITY APPARATUS

Code: LIQCONDAPP

Test the conductivity of liquids in a test tube or narrow beaker.

Can test conductivity of solids as well.

Two stainless steel wires, connected to the globe, will fit into the test tube.

Overall length: 140mm (approx.). Probe length: 100mm.

Plate size: 80mm x 60mm x 2mm (approx.).

Lesson plan included.

NOTE: Power source such as 2 x AA Batteries required. A single 1.5V battery does not supply adequate current for the globe to register the conductivity of liquids.

Requires suitable battery holder and suitable vessel to hold liquids.

\$9.50



GIANT MAGNETIC FIELD DEMONSTRATOR

Code: PH0802

- Clear plastic board of 98 chambers each containing a small iron rod
- Conveniently displays configuration of a magnetic field
- Can be used on overhead projectors (Magnets not included)

\$45.00





PLASTIC CASED BAR MAGNET PAIR

Code: PH0785

2 durable red / blue plastic bar magnets. Measure 75 x 20 x 12.5mm each. \$8.80 WARNING: Magnets are not toys and must not be used by young children, or children without supervision. They should be handled with care.

FLOATING RING MAGNETS

- · A great demonstration of magnetic fields
- · Set of 4 magnets on a stand

(Item supplied may vary from illustration \$22.00

HORSESHOE MAGNET - 80MM

Code: PA-57

U-shaped m.agnet

Overall length 80mm, cross section of poles 20 x 10mm.

Space between poles 42mm. 350 Gauss, made of Al/Fe/C.

North pole painted red, south pole blue In plastic storage case.

\$15.95





FLOATING MAGNET DEMONSTRATION SET

Code: 501054

- Dramatically demonstrate magnetic pole repulsion using this simple and stimulating apparatus.
- Includes 3 plastic covered magnets that float on a flexible plastic rod with a rubber bumper.
- The magnets float in the air, one over the other, springing back when pushed down.

(LIMITED STOCK) \$10.00



FOR OTHER SUITABLE SETS USEFUL FOR THE STUDY OF ELECTRICITY AND ELECTRIC CIRCUITS, SEE "CLIP CIRCUITS" AND "SNAP CIRCUITS".

WEATHER & METEOROLOGY

ANEMOMETER - CUP Code: 1055043

- Wind speed anemometer working model.Mounted on a low friction bearing and consisting of 3 black plastic & 1 red plastic cup.210mm x 180mm (h).
- Anemometer is sensitive at wind speed of 1.5km/h.
- Student can determine the wind speed quantitatively by counting the number of rotations.
 \$23.10



FITZROY STORM GLASS

Code: HJ6185

- Predict the weather!
- The storm glass was popularised by Admiral Robert Fitzroy after his historic voyage on the HMS Beagle
- 28cm tall

\$28.00



WIND VANE

Code: HSVANE

- · Wind vane on stand
- Compass directions (north, south, east, west) denoted by large letters
- · Approximate height: 21cm
- A useful tool in teaching wind measurement
- Can be used in conjunction with the Cup Anemometer (Code: 1055043) or with a hand held ANEMOMETER
 LCD WIND SPEED GAUGE (Code: ANEMOLCD)

\$32.95



WEATHER SCIENCE

Code: FSG3402

- Learn the science behind the various weather phenomenon
- Create a misty cloud, conduct experiments with acid rain, explore the impact of global warming
- Build a water recycling model \$27.00



4M WEATHER STATION

Code: FSG3279

\$23.20

Observe and record the weather with your own multi-functional weather station. The kit features a wind vane and anemometer, a thermometer and a rain gauge.

Also experiment with the greenhouse effect and create a terrarium in a bottle.

Ages: 8+







LIGHT, APPLIED LIGHT & COLOUR

NEWTON'S COLOUR DISC - HAND SPUN

Code: PH0582HS

200mm diameter disc contains 4 distinct quadrants, each with violet, indigo, blue, green, yellow, orange & red wedges. When stationery, the wheel consists of the separate colours described. When the wheel is set in motion, does that still hold true?

Plastic handle attaches to the centre of the wheel, which can be set to spin with an included cord.

Overall dimensions: 200 x 160mm. \$20.50



LENSES 50MM - SET OF 6

Code: PH0538A

50mm diameter glass optic lenses with ground and polished surfaces.

Double convex, plano-convex, converging concave-convex.

diverging concave-convex, double concave & plano-concave.

In storage case (Item supplied may vary from illustration). \$27.50

NEWTON'S COLOUR DISC - HAND DRIVEN

Code: PH0582A

Demonstrates that white light may be composed of all the spectral colours by the rotation of the multi-coloured disc.

Mounted on metal stand; Hand operated, driven by belt.

175mm multi-coloured disc. \$58.00



LENS HOLDER Code: LENSHOLD

Adjustable plastic lens holder. Height can be adjusted by up to 60mm.

Able to hold a 4mm thick lens that are up to a diameter of 75mm.

Overall dimensions (approx.): 110 x 70 x 160mm. **\$6.60**



Code: AR1110260 Can fit lenses up to 75 mm diameter. \$6.30



LIGHT BENDER Code: PH0587

Light guide demonstrator displays total internal reflection. Can be used with a light box to demonstrate total internal reflection. It helps students to understand the principles of optical communications. The bottom of the bar is white to aid visibility.

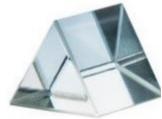
Acrylic bar 220 x 20 x 20mm

Light can go around corners! \$12.00

PRISM - EQUILATERAL

Code: PRHL1056-01

50mm glass prism; 60 x 60 x 60 degree angles \$11.75



PRISM - RIGHT ANGLE

Code: PRHL1706-01 50mm glass prism

\$13.20



HINGED MIRRORS

Code: MIR11657

Single sided 3mm thick rigid plastic mirrors that are taped together to enable creative angled reflections. Three sets of 2 mirrors each 150mm x 100mm.

Stable, fantastic for light studies. \$18.50



UNBREAKABLE DOUBLE SIDED MIRROR

Code: MIRHL0976-01

Double Sided, high quality mirror finish Acrylic

Both sides are protected with a peel off film and can be bent or cut easily

Can be used in: Science experiments with light; Maths' shape & symmetry work; creative art and craft projects
Size of sheet: 100mm x 150mm.

\$8.80



COLOUR BLENDING PADDLES

Code: LER0352

Set of 6

Transparent 6" paddles in six colours to demonstrate the principles of colour mixing.

\$11.00



PRISM - GLASS

Code: PRGL503

50mm long optical glass prism. Used to demonstrate that white light is made up of the colours of the rainbow (the spectrum).

Each face is 28mm.

Corners are ground for safety.

Suitable ages 10+.

\$8.95



MIRRORS

Unmounted spherical mirros, optically worked, silvered back with protective coating.

CONCAVE MIRRORS

DIAMETER (mm)	FOCAL LENGTH (cm)	CODE	PRICE
50	5	HL0616-01	\$3.50
50	7.5	HL0626-01	\$3.50
50	10	HL0636-01	\$2.50
50	15	HL0646-01	\$2.50
50	20	HL0656-01	\$2.50
50	25	HL0666-01	\$2.50
50	30	HL0676-01	\$2.50
50	50	HL0686-01	\$2.50
50	100	HL0696-01	\$2.50
75	7.5	HL0706-01	\$5.75
75	10	HL0726-01	\$5.50
75	15	HL0736-01	\$5.50
75	20	HL0746-01	\$5.50
75	25	HL0756-01	\$5.50
75	30	HL0766-01	\$5.50
75	50	HL0767-01	\$5.50

CONVEX MIRRORS

DIAMETER (mm)	FOCAL LENGTH (cm)	CODE	PRICE
50	5	HL0786-01	\$3.30
50	7.5	HL0796-01	\$3.30
50	10	HL0806-01	\$2.50
50	15	HL0816-01	\$2.50
50	20	HL0826-01	\$2.50
50	25	HL0836-01	\$2.50
50	30	HL0846-01	\$2.50
50	50	HL0856-01	\$2.50
50	100	HL0866-01	\$2.50
75	7.5	HL0706-75	\$5.75
75	10	HL0726-75	\$5.50
75	15	HL0736-75	\$5.50
75	20	HL0746-75	\$5.50
75	25	HL0756-75	\$5.50
75	30	HL0766-75	\$5.50

GLASS LENSES - SPHERICAL

High quality, optically true lenses. Made of high quality polished glass. Spherical with round edges.

BI-CONCAVE LENS

DIAMETER (mm)	FOCAL LENGTH (cm)	CODE	PRICE
50	5	PH0536G-CC	\$4.50
50	10	PH0536H-CC	\$3.50
50	15	PH0536I-CC	\$3.20
50	20	PH0536J-CC	\$3.20
50	25	PH0536K-CC	\$3.10
50	30	PH0536L-CC	\$3.00
50	50	PH0536L-CC1	\$3.00

BI-CONVEX LENS

	2. 002		
DIAMETER (mm)	FOCAL LENGTH (cm)	CODE	PRICE
50	5	PH0534G-CV	\$3.50
50	10	PH0534H-CV	\$3.50
50	15	PH0534I-CV	\$3.20
50	20	PH0534J-CV	\$3.20
50	25	PH0534K-CV	\$3.20
50	30	PH0534L-CV	\$3.00
50	50	PH0534L-CV1	\$3.00
50	100	PH0534L-CV2	\$3.00

BI-CONVEX LENS

		_	
DIAMETER (mm)	FOCAL LENGTH (cm)	CODE	PRICE
75	10	PH0534N-CV	\$9.30
75	15	PH0534O-CV	\$6.70
75	20	PH0534P-CV	\$6.50
75	25	PH0534Q-CV	\$6.50
75	30	PH0534R-CV	\$6.00
75	50	PH0534R-CV1	\$6.00
75	100	PH0534R-CV2	\$6.00









TECHNOLOGY AND ELECTRICAL COMPONENTS

THE **FOLLOWING** IS **SELECTION** OF TECHNOLOGY AND **ELECTRICAL COMPONENTS** AVAILABLE FROM SCORPIO TECHNOLOGY. PLEASE SEE OUR ONLINE "PRODUCT CATALOGUE" FOR A COMPREHENSIVE LISTING.

SOLAR PANELS - SMALL HOBBY PANELS



CODE	SIZE	WATTS	VOLTS/AMPS (NOM)	WIRES (LENGTH)	PRICE
SOLAR1	86 x 57 mm	0.485	0.5V / 0.97A		\$5.95
SOLAR2	86 x 133 mm	1.2	1.5V/0.8A		\$13.02
SOLAR 3	105 x 72 mm	0.68	2.0V / 0.34A		\$9.06
SOLAR4	86 X 170 mm	1.6	2.0V / 0.92A		\$15.52
SOLAR5	22 x 84 mm	0.18	0.5V / 0.37A	100 mm	\$3.75
SOLAR7	78 x 179mm	2.4	3.0V / 0.8A	120 mm	\$15.52
SOLAR8	86 x 147 mm	1.44	2.0V / 0.72A		\$11.17
SOLAR9.5	51 x 58mm	0.10	1.5V / 0.07A	100 mm	\$3.98
SOLAR11	91 x 104 mm	2 x 0.525	2x 1.5V / 0.35A		\$9.06
SOLAR13	91 x 216 mm	4 x 0.57	4 x1.5V / 0.38A		\$16.38
SOLAR14	60 x 78 mm	0.45	1.5V / 0.3A		\$5.95
SOLAR23	86 x 188 mm	1.7	2 x 1.0V / 0.85A		\$15.52



LIGHT GLOBES AND BULB HOLDERS

LIGHT BULB 2.5V

Code: LIGBULB25 2.5V. 0.5A torch bulb.

Pack of 25. \$15.73 (1 pack) \$27.36 (2 packs)



BULB HOLDER

Code: BULBH25 Light bulb holder for screw mounting bulb. Pack of 25. \$11.55 (1 Pack)



FAHNSTOCK CLIP

Code: FAHNCLIP

\$22.80 (2 packs)

A simple spring clamp to allow making simple circuits. (LIMITED STOCK).

Price: \$0.06



BULB HOLDER ROUND BASE

Code: BULBHBASE Miniature bulb holder with round base for 2.5V or 6V MES bulbs. Pack of 10. \$14.63



GLOBE HOLDER & SWITCH -**ECONOMY**

Code: BULBHECO2052

Plastic bulb holder and switch with two Fahnstock clips for connecting wire. Made of durable plastic. (Sold as a pair). \$4.00



GLOBES - MES Code: GLOMES6.3P MES light bulb 6.3V, 0.25A. Pack of 10.

\$8.78

Code: GLOMES6.2 MES light bulb 6.2V, 0.5A Pack of 10. \$8.78

Code: GLOMES1.2 MES light bulb 1.2V, 0.3A. Pack of 10. \$8.78



ELECTRIC MOTORS			The same of the sa			3/2			4	-
SPECIFICAT	TIONS / CODE	MOT12	MOT12W	MOTJ2	MOTJ2W	MOT17*	MOT22	MOT22W	MOT30*	GENDC
Operating ra	nge (Volts)	1.5	- 4.5	1.5	- 6.0	3.0 -12.0	1.5	-4.5	4.5 - 6.0	1.5 - 9.0
	RPM	15	,500	6,	700	11,800	9,0	000	13,600	2,600
No load current	Amps	O	.32	0	.12	0.30	0.	16	0.28	0.025
Under load	RPM	11	,900	4,	450	9,350	7,3	350	11,350	2,100
at Max	Amps	1	.01	0	.27	1.04	0.	83	1.38	0.089
efficiency	Torque-g.cm	1	0.0	8.1		17.5	13.6		29.7	11.0
Testing Volta	ge	3	.0V	3.0V		3.0V	3.0V		4.5V	6.0V
DIMENSION	S									
Body size (O flat (mm)	D.D.) / Across	20.0	/ 15.0	20.0 / 15.0		23.8	24.0 / 18.3		30.0	32.0
Body length	(mm)	2	5.0	:	25	26.9	26	5.9	24.0	20.0
Shaft dia. & I	ength (mm)	2.0	/ 7.7	2.0	/ 7.7	2.0 / 6.9	2.0	/ 6.3	2.0 / 9.5	2.0 / 11.0
Weight (gran	ns)	17	20	17	20	28	28	31	41	43
Wire lengths	(mm)	N/A	120mm	N/A	120mm	N/A	N/A	120mm	N/A	N/A
Discourse	1 - 4	\$11.00	\$11.76	\$11.00	\$11.76	\$11.91	\$11.76	\$12.48	\$18.19	\$17.29
Price per pack of 5	5 - 10	\$10.87	\$11.63	\$10.87	\$11.63	\$11.76	\$11.63	\$12.40	\$16.97	\$15.88
(no. of	11 - 20	\$10.74	\$11.49	\$10.74	\$11.50	\$11.63	\$11.50	\$12.25	\$15.88	\$15.05
packs)	21+	\$10.67	\$11.34	\$10.61	\$11.34	\$11.49	\$11.34	\$12.10	\$14.72	\$14.44

*Two screws are supplied with these motors.

Colours of the motor ends may differ from photos above.

Photos not to scale.

FASTENERS OR CLIPS SUITABLE FOR MOUNTING OR SECURING MOTORS: See "MISCELLANEOUS COMPONENTS"

BUZZERS

BUZZER - LILYPAD MODULE

Code: BUZZERLPM

This is a small buzzer for the LilyPad system. Use 2 I/O pins on the LilyPad main board and create different noises based on the different frequency of I/O toggling.

Loud enough to hear inside a pocket but not obtrusively loud.

This is an inductive buzzer meaning that is will act as a short to ground if you are not actively driving it.

Recommend that both I/O pins are put to low (0V) when the buzzer is not used. 20mm outer diameter.

Thin 0.8mm PCB.

re NOT WASHABLE. Washing

These buzzers are NOT WASHABLE	. vvasning
these buzzers will damage them.	
\$4.30	

ITEM NAME	CODE	PRICE
MINI BUZZER 3V	BUZZERMIN3	\$3.57
	Piezo Buzzer 91dB 3-16VDC Dimensions (approx.): 33mm (I) x 22mm (w) x 10mm (h) Mounting hold centres: 30mm (screws not supplied).	
MINI BUZZER 5V	BUZZERMIN5	\$4.38
	Mini Buzzer 5-12V Dimensions (approx.): 33mm (I) x 16mm (w) x 15mm (h) Screw holes allow for mounting (screws not supplied).	
MINI BUZZER 3-9V	BUZZERMIN3-9	\$3.57
	Op. Voltage: 3-9V. Current at Rated Voltage: Max 30mA; Sound Pressure at Rated Voltage: 80dB; With 100mm Red/Black Wires. Dimensions: 33mm (I) x 17mm (w) x 15mm (h). Screw holes allow for mounting (screws not supplied).	

ALL PRICES INCLUDE GST



BATTERY HOLDERS

				(10)			Piles Report of the Piles		
CODE		BCLIP	BH9VF	BH1AA	BH2AA	BH2AAF	ВНЗАА	BH3AAF	BH4AA
FOR		1 X 9V	1 X 9V	1 X AA	2 X AA	2 X AA	3 X AA	3 X AA	4 X AA
WIRES		YES	YES	YES	YES	YES	YES	YES	YES
COVER OFF SW		NO	YES	NO	NO	YES	NO	YES	NO
	1 - 4	\$3.62	\$15.07	\$5.80	\$5.92	\$14.32	\$6.71	\$16.03	\$7.46
PER OF 5	1 - 9	\$3.39	\$14.18	\$5.67	\$5.81	\$13.13	\$6.50	\$14.71	\$7.26
PRICE PER PACK OF 5	10 - 20	\$3.18	\$13.32	\$5.49	\$5.49	\$12.02	\$6.06	\$13.47	\$6.64
PAG	21+	\$3.03	\$12.47	\$5.16	\$5.38	\$11.03	\$5.84	\$12.35	\$6.36

			Sin St.	ALL MILE			The state of the s	
CODE		BH4AAF	BH6AA	ВН4ААА	BH2C	BHLIT	BH1D	BHSTKD
FOR		4 X AA	6 X AA	4 X AAA	2 X C	3.6V Lithium Ion	1x D	1 x D
WIRES		YES	YES	YES	YES	NO	YES	NO
COVER OFF SW		YES	NO	NO	NO	NO	NO	STACKABLE
	1 - 4	\$16.03	\$8.42	\$7.06	\$9.99	\$11.48	\$8.26	
PER F 5	1 - 9	\$14.71	\$7.80	\$6.85	\$9.41	\$10.70	\$7.94	1
PRICE PER PACK OF 5	10 - 20	\$13.47	\$7.30	\$6.32	\$8.95	\$10.14	\$7.62	\$ 3.65 EACH
PRI	21+	\$12.35	\$7.11	\$6.07	\$8.51	\$10.00	\$7.31	1

BATTERIES

CODE	SIZE	TYPE	QTY.	PRICE
BATTAA	AA	Heavy Duty	4	\$3.50
BATTALK	AA	Alkaline	4	\$4.40
BATTALK40	AA	Alkaline	40	\$27.50
BATTAAA	AAA	Alkaline	4	\$4.40
BATTAAA40	AAA	Alkaline	40	\$27.50
BATTN	"N" TYPE	Alkaline (Clearance item)	2	\$2.72
BATTL3.6	3.6V LITHIUM ION BATTERY	Rechargeable Buttoncell 3.6V	1	\$5.30
BATTCR2032-5	CR2032	Buttoncell CR2032 Lithium Battery	5	\$9.75
BATTD	D BATTERY	Heavy Duty Toshiba	2	\$3.23
BATT9	9V	Heavy Duty	1	\$3.50

SWITCHES



SWITCH - KNIFE TYPE

Code: SWKNF Knife type switch. Single pole, single throw (SPST). 100mm x 35mm x 30mm With 2 terminals suitable for both banana plugs and alligator clips.

Suitable for low voltage electric circuit experiments in Physics & Primary School science classes to control the flow of electricity in a circuit.

(Item supplied may vary slightly from photo).



SWITCH - ROCKER Code: SWRCKD

Rocker-type switch SPST ("ON-OFF") 100mm x 60mm x 60mm

With 2.5mm plastic housing on terminals suitable for both banana plugs and alligator

Suitable for low voltage electric circuit experiments in Physics classes.



CONTACT KEY SWITCH - SINGLE Code: SWCONKEY

Provides momentary contact when pressed down in electrical circuits which are normally open.

Comprising a plated spring strip arm with thumb-press knob, a contact stud, plated connecting strip and a pair of 4mm terminals, all mounted on a moulded plastic base

Suitable for Physics experiments (Item supplied may vary slightly from photo). \$10.20

						PI	RICE P	ER PAC	K
	ITEM NAME	CODE	Description	Wires	Qty./ Pack	1-4 Pkts.	5-9 Pkts.	10-19 Pkts.	20+ Pkts.
	SLIDE SWITCH - SMALL	SSWS	DPDT. ON-OFF.	NO	5	\$5.61	\$5.46	\$5.27	\$4.98
	SLIDE SWITCH - LARGE	SSWL	DPDT. ON-OFF-ON. With centre "OFF" position. Can be used as a forward/ off/reverse switch for solar panels.	NO	5	\$6.91	\$6.84	\$6.50	\$6.23
	SLIDE SWITCH – SMALL WITH WIRES		DPDT. ON-OFF. With 100mm Wires.	YES	5	\$5.89	\$5.65	\$5.44	\$5.34
	All the abov	e switches a	are supplied with two screws pe	r switch	١.				
S.	PUSH SLIDE SWITCH – NON LOCK	PUSLSWN	DPDT push slide switch with- out locking position	NO	5	\$5.62	\$5.40	\$5.19	\$4.94
	PUSH BUTTON SWITCH	PUBUTM	Momentary "ON" switch with washer and nut.	NO	5	\$5.93	\$5.52	\$5.19	\$4.79
	PUSH BUTTON SWITCH WITH WIRES	PUBUTMW	Momentary "ON" switch with washer and nut. Approx. 125mm long wires.	YES	5	\$6.23	\$5.81	\$5.47	\$5.12
	ONE WAY SWITCH	SW1W	SPDT (Single Pole Double Throw). "ON-OFF" switch. 4 terminals" 2 "in" and 2 "out".	NO	5	\$7.19	\$7.06	\$6.90	\$6.76
ALL PRICES INCLUDE GST	TWO WAY SWITCH		DPDT (Double Pole Double Throw). "ON-OFF-ON" switch. "Can be used as a forward/off/reverse or series/off/parallel switch for solar panels.	NO	5	\$11.61	\$11.34	\$11.13	\$10.91



COMPONENTS FOR PAPER CIRCUITS

LILYPAD SLIDE SWITCH MODULE

Code: SSWLPM

Simple On/Off switch or to control LEDs, buzzers, sensors, etc. Can also be sewn onto clothing – washable (e-textile technology). \$2.89



ADHESIVE COPPER TAPE - 6MM X 50M

Code: TAPECOPAD

20 metre roll of 0.06mm thick adhesive copper tape. Suitable for Paper Circuits

projects. 6mm wide. Price per roll: \$11.00 (1 - 9 rolls) \$10.50 (10+ rolls)



LILYPAD PUSH BUTTON MODULE

Code: PUBUTLPM

Lilypad Button Board Module for Arduino DIY kits.

Can be sewn onto clothing – washable (e-textile technology).

Momentary push button (i.e. button closes when you push it and opens when you release it).
8x16mm

0.8mm PCB. \$2.89

BUZZER - LILYPAD MODULE

Code: BUZZERLPM

This is a small buzzer for the LilyPad system.

Use 2 I/O pins on the LilyPad main board and create different noises based on the different frequency of I/O toggling.



Loud enough to hear inside a pocket but not obtrusively loud.

This is an inductive buzzer meaning that is will act as a short to ground if you are not actively driving it.

Recommend that both I/O pins are put to low (0V) when the buzzer is not used. 20mm outer diameter.

Thin 0.8mm PCB

These buzzers are NOT WASHABLE. Washing









	PULLEYS											
CODE	ITEM NAME	HOLE DIAMETER	OUTER DIAMETER	NOTES	QTY / PACK	PRICE						
PU5.5	PULLEY 5.5MM	1.9 mm	5.5 mm	Hole can be drilled to 2.4mm diameter to suit the 2.5mm rod. Colour: black.	10	\$13.14						
PU5.5W	PULLEY 5.5MM WHITE	1.9 mm	5.5 mm	Hole can be drilled to 2.4mm diameter to suit the 2.5mm rod. Colour: white.	10	\$13.14						
PU10x1	PULLEY 10MM	1.9 mm	10 mm	Press fits onto 2mm motor shaft. Hole can be drilled to 2.4mm diameter to suit the 2.5mm rod.	10	\$14.20						
PU30	PULLEY 30MM	2.4 mm	30 mm	Hole can be drilled to 2.9mm diameter to suit the 3.0mm rod. Colour: black.	10	\$16.14						
PU30W	PULLEY 30MM WHITE	2.4 mm	30 mm	Hole can be drilled to 2.9mm diameter to suit the 3.0mm rod. Colour: white.	10	\$16.14						
PU50	PULLEY 50MM	2.4 mm	50 mm	Hole can be drilled to 2.9mm diameter to suit the 3.0mm rod.	10	\$19.56						

O-RINGS



BELT O-RING 45.5 X 1.5MM

Code: ORING Inner Diameter: 45mm Cross Section: 1.5mm

Pack of 10.

\$4.84

O-RING 78.99 X 1.78MM

Code: ORING70 Inner Diameter: 79mm Cross Section: 1.8mm Pack of 10.

\$5.17



O-RINGS USE

Code: ORING50 Inner Diameter: 50mm Cross Section: 4.0mm

O-Rings are used as a tyre on the

50mm pulleys (PU50).

Pack of 10. \$6.42

BELT O-RING 55 X 1.5MM

Code: ORING55 Inner Diameter: 55mm Cross Section: 1.5mm Pack of 10.

\$4.84

PROPELLERS



74mm Propeller



128mm Propeller



147mm Propeller

PHOTOS NOT TO SCALE





2-Blade Propellers



3-Blade Propellers



3-Blade Propellers (various colours)





PLATFORM & HULL MATERIAL (FOR CARS & BOATS)

ITEM	CODE	DESCRIPTION	PRICE
CORFLUTE SHEET - DIMENSIONS: 100MM X 200MM X 5MM	CORF100/200/5		\$0.93
CORFLUTE SHEET - DIMENSIONS: 300MM X 120MM X 5MM	CORF300/120/5		\$1.58
CORFLUTE SHEET - DIMENSIONS: 200MM X 300MM X 5MM	CORF200/300/5		\$2.00
STYROFOAM - DIMENSIONS: 300MM X 200MM X 25MM	STYRO300/200/25	For monohull.	\$6.44
STYROFOAM - DIMENSIONS: 300MM X 50MM X 25MM	STYRO300/50/25	2 pieces required to make a catamaran.	\$1.76
FOAM TRAY - 11 X 9 - SHALLOW	FOAMTR11X9	Light weight foam tray suitable for boats	\$0.62
FOAM TRAY - 11 X 5 - SHALLOW	FOAMTR11X5	Light weight foam tray suitable for boats	\$0.40

MISCELLANEOUS COMPONENTS

ADHESIVE SINGLE SIDED TAPE

Code: TAPESS 12mm x 66m Suitable for use to retain motors & quide tubes. 66 metre roll. \$7.00



DOUBLE SIDED TAPE PIECES 20X15X1MM

Code: TAPEDS20X15X1

Small double-sided tape rectangles.

Block of 16 (connected).

\$0.50



(As supplied in the Blue Bros - Blue Sky kit)

CLOTH DOUBLE SIDED TAPE

Code: TAPEDS

Approx. 12 or 18mm wide (depending on supplier availability).

Suitable for use to retain motors & guide tubes.

25 mtr roll. \$11.89



ELECTRIC MOTOR MOUNTING CLIP

Code: EMCL Self-adhesive clip. Securely holds MOT12 to MOT30 motors. Pack of 5.

\$7.67 (1 - 4 packs) \$6.64 (5 - 19 packs) \$6.49 (20+ packs)



ALLIGATOR CLIPS

RUBBER BANDS#18

Code: ALLICLIP

Pack contains 5 red and 5 black alligator

clips.

\$0.38

Pack of 10.

\$5.72 (1 - 4 packs) \$5.38 (5 - 19 packs)

\$4.96 (20+ packs)



CABLE TIE 200MM X 3.65MM

Code: CABTIE200W

Cable ties 200mm long x 3.65 mm wide. Suitable for attaching the motor to the chassis. Pack of 10.



\$1.68 CABLE TIE 100 X 3.65MM WHITE Code: CABTIE100AW

Pack of 10. \$0.46

CABLE TIE 100 X 3.65MM BLACK

Code: CABTIE100A

Pack of 10. \$0.46



VELCRO HOOK 19MM WIDE

Code: VELHO

White self-adhesive 19mm Hook tape.

Per metre: \$3.62

VELCRO LOOP 19MM WIDE

Code: VELLO

White self-adhesive 19mm Loop tape.

Per metre: \$3.62



FISHING LINE - REEL

Code: FLINE 200m roll.

Suitable for CAPTIVE AIRPLANE.

\$6.20



ALLIGATOR CLIP - INSULATED **SHANK**

Code: ALLCLIPISB (Black)

Code: ALLCLIPISR (Red) Alligator clips with

screw. Overall length approx. 75mm. Black or red (please specify colour).

Pack of 10. \$8.94



ALLIGATOR CLIP - PLAIN SHANK

Code: ALLICLIPPS

These alligator clips have been designed to take a 4mm banana plug into the shank

or have a bare wire attach with screw mount.Pack of 10. \$5.72



BANANA PLUGS – 4MM

Code: BAPLBK4A (Black) Code: BAPLG4 (Green) Code: BAPLR4A (Red) Code: BAPLY4 (Yellow) Side stacking – 4mm stem

(Banana Lead Connectors - Stackable)

Available in black / green / red / yellow (specify colour & code when ordering).

Pack of 10. \$9.66



ALLIGATOR CLIP & WIRE

Code: ALLIWIRES12

Alligator clips with 250mm wire - 6 colours (black, red, yellow, blue, green & white).

Pack of 12. \$12.45 (1 - 4 packs)

\$11.94 (5 - 19 packs) \$11.45 (20+ packs)



BANANA PLUGS WITH WIRES (PAIR) Code: BAPLW2

Set of red & black banana plugs with

matching 40cm leads. \$6.13



TWIST ON CONNECTORS

Code: CONN-SC

3.8mm Twist on connector for joining 2-3

wires together without soldering (Grey). Pack of 10. \$5.96



BANANA PLUGS - PIGGY BACK -

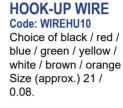
Code: BAPLPBBK4 (Black) Code: BAPLPBR4 (Red)

Piggy Back Style - Another banana plug can be inserted into the back of the plug.

4mm terminals

(dia).

Red or Black (please specify). \$2.22 (each)

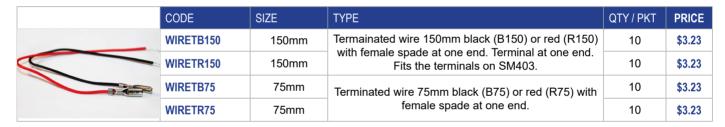




Please specify colour & length when ordering. If no colour is specified, black (WIRE-HUBK10) will be delivered.

Price per 10 metres: \$3.27

TERMINATED WIRES





STEEL ROD 2.5MM X 500MM

Rod Outer diamter: 2.5mm Rod Length: 500mm

Code: STR2.5 Code: STR2.5-20 Pack of 20 Pack of 5 \$12.96 \$3.62

DRIVELINE BOAT BEARING

Code: BEARBT

Driveline bearing.

Used with yellow guide tube (GUIDY) to reduce friction &

reduce power consumption. Outer diameter: 4.3mm Flange diameter: 6.0mm Bore diameter: 2.6mm

Width: 7.0mm Pack of 10. \$6.98



MAGNIFICATION

MAGNIFIER WITH TRIPOD Code: MG0255 5cm diameter \$10.20



FIELD MAGNIFIER

Code: MGHJ2118 Loupe. Magnification - 10 times. 10 x 21mm.

Stainless Steel.

Includes Perspex travel box.



HANDISCOPE

Code: MGHJ2126 Go anywhere microscope.

No batteries required. Ambient light & reflective mirrors provide strong 30x magnifications. Examine anything that will not fit under a traditional microscope.

\$15.40







HAND AND MEASURING TOOLS



HAMMER - CLAW Code: HAMMERCL

Fibreglass hammer with claw to remove nails. Ergonomic grip. Suitable for students to use (under teacher supervision) to create new projects.

\$8.68



SIDE CUTTERS - INSULATED

Code: SIDECUT 150mm long side cutter \$25.96 (1 - 25) \$24.50 (26+)



WIRE STRIPPER

Code: WIRESTR

TRex design - Automatically adjusts to insulation diameter, and is one handed operation \$18.87



WIRE STRIPPER 3 Code: WIRESTR3

Adjustable wire stripper. Return spring.

Cushion grip 12.5cm (approx.) long. \$10.84



HOT GLUE GUN - MINI

Code: GLUEGUNMIN

30W, 240V;

(GLUESTK7).

students.

\$14.71

HOT GLUE STICKS - 7MM

For use with 7MM HOT GLUE STICKS

Smaller glue gun suitable for primary level

For **HOT GLUE GUN**

MINI

(GLUEGUNMIN). 7.4mm (dia) x 100mm (l)

Code: GLUESTK7-5

Pack of 5 \$3.75

Code: GLUESTK7 Pack of 50 \$11.30



METER RULER - WOODEN

Code: MRPH0062

One metre, graduated on both edges in centimetres & millimetres. One edge reads 0 - 100 left to right, the other in reverse.

METER RULER - PLASTIC

Code: MREX100

One metre, graduated on one side in 0.5cm & numbered in centimetres.

Reverse side graduated in millimetres & from 0 -100 in centimetres.

\$12.60



Code: SIDECUTM Mini Side Cutters. 120mm long.

\$5.91



CLINOMETER

Code: CLINO

Easily calulate the height of any tall object using this one-piece clinometer. Simply aim, squeeze the trigger and view the angle of inclination. Use some simple math and you have the height. Sturdy plastic mould. 250 x 160 x 25mm.

\$34.50



CRAFT KNIFE - 18MM SNAP BLADE

Code: CRKNF

Heavy duty locking knife. 18mm snap blade. \$5.36



\$7.57

2022 PRIMARY STEM CATALOGUE

MEASURING SQUARE 100

Code: SQUARE100 Measuring Square Type: Engineer 100mm blade. Solid Steel. Ideal for workshop and inspection applications.





MULTI-USE TOOL / SPANNER

Code: MULTITOOL

Can be used as a Gear pusher or as

a Spanner for M3 nuts. 5.6mm opening. Pack of 10. \$4.49

TEST EQUIPMENT

ANALOGUE BENCH METERS



ITEM	CODE	SPECIFICATION / DESCRIPTION	PRICE
AMMETER	PA-6	0 – 1A / 0 – 5A in 20mA/100mA DC	
AMMETER	PA-10	Range 0 – 10A in 200mA	\$21.50
VOLTMETER	PA-111	Range 0 – 3V/15V/30V DC in 0.1V/1V/1V	·
GALVANOMETER	PA-14-1	500 – 0-500uA in ± 20uA	

(Items supplied may vary from illustration)

Digital Bench Meters are also available. See our online "Product Catalogue".



DIGITAL MULTIMETER

Code: MULTIM 3.5 digits LCD display, 8 functions, 19 ranges

DC Voltage Range: 200mV/2V/20V/200V/500V AC Voltage Range: 200V/500V DC Current Range: 2mA/20mA/200mA

Resistance: $200\Omega/2k\Omega/20k\Omega/200k\Omega/2M\Omega$

Battery Test: 1.5V/9V

Dimensions: 132mm x 70mm x 25mm.

\$15.15

SPORTS TIMER

Code: STOP

Basic quartz sports timer 1/100th second stopwatch Split / lap time Hours, minutes, seconds

Day, date, month

Variety of colours to choose from (please specify): red, yellow, white, orange, blue, black or green.

\$1.58 each

SAFETY EQUIPMENT (EYE WEAR)



SAFETY GLASSES

Code: LWSN150 Polycarbonate. Unisafe. Snug fit. One-piece wraparound design.

Australian Standards. \$5.92



SAFETY GOGGLES Code: LW457701

Polycarbonate Lenses.





SCORPIO TECHNOLOGY VICTORIA PTY. LTD. (A.B.N. 34 056 661 422)

Tel: (03) 9802 9913 / Fax: (03) 9887 8158 Post to: 1/31 Dalgety Street, Oakleigh, Vic. 3166

E-mail: sales@scorpiotechnology.com.au

PLEASE NOTE: If you are a school or business, email, post or fax a copy of *your OFFICIAL ORDER FORM* to us. Please include the teacher's / contacts name and contact information (preferably an e-mail address).

Name: :	
Address	
State / Territory:	Postcode:
Email address:	
Telephone:	Fax:
Purchase Order no. (if applicable)	

Schools WITHOUT official order forms can use this form, and are required to send an emailed order that displays school details. The teacher's name and contact details must be supplied.

School / Business name	
Teacher's name:	
Teacher's email:	
School email:	
School's Telephone:	Fax:

CODE	DESCRIPTION	Price per	Qty	Cost (Price x Qty)
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
				\$
SUBTOTAL				\$
POSTAGE *				\$
TOTAL				\$
APPROVED -				
SIGNATURE				

POSTAGE Ref

Refer to the postage chart

POSTAGE RATES

Weight	Under 0.5 kg	0.5 - 2.0 kg	2 - 5 kg	5 – 10 kg	10-20 kg	25+ kg
Victoria	\$10.3 4	\$13.39	\$ 15.20	\$18.26	\$24.35	
NSW / SA / TAS	\$10.34	\$17.35	\$19.47	\$21.90	\$30.44	Please
Brisbane, Perth	\$10.34	\$19.47	\$21.90	\$27.39	\$36.50	enquire
QLD / WA / NT (Rural)	\$10.34	\$21.30	\$24.35	\$30.44	\$42.59	

- ✓ E-mail, post or fax your official school order to us, including the teacher's name to speed delivery.
- ✓ An invoice will be included with the goods. Note: you do not need to open an account with us.
- Private customers welcome, too. Order will be dispatched once payment is received.
- ✓ Orders are dispatched quickly and are sent using Australia Post.
- ✓ Prices and stock availability are subject to change without notice.
- ✓ Payment is by cheque, EFT or credit card. Please note there will be a 1.5% surcharge on all credit card payments over \$250.
- ✓ Bulky items (eg. dynamic ramps & trolleys), very large or heavy orders & special order items that cannot be sent via our regular Australia Post service will incur an additional postage fee.

CLEARANCE ITEMS

BELOW IS A SAMPLE OF RUNOUT STOCK THAT MAY BE SUITABLE IN YOUR SCHOOL OR HOME. A MORE COMPREHENSIVE LISTING CAN BE FOUND UNDER "SALE ITEMS" ON OUR WEBSITE.

IDEA FACTORY: FORCE & MOTION

Code: LER2472

Kids delight in the exploration of the world of friction, gravity and momentum by building loopthe-loops, button spinners, marble



catchers and other dynamic experiments.

Kit includes plastic tracking & connectors; loop stand; plastic bucket; assorted balls & marbles; toy car; Idea Factory Activity Guide.

Developed in conjunction with the Museum of Science and Industry in Chicago.

Ages 6 to 10 \$20.00

GIANT CLASSROOM THERMOMETER

Code: LER0380

Giant classroom / outdoor thermometer.

-40°C to +50°C (-40°F to +120°F).

38cm (long) x 7.5cm (wide). Mercury free.

\$14.50

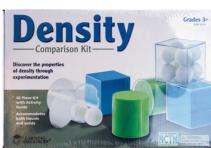


3D FOAM SHAPES - 7CM DIA .- SET OF 5

Set of 5 foam shapes. Rectangular prism, cone, cylindrical, sphere & cube. 7cm dia meter. Up to 14cm high.

Ideal for early primary school students to learn about basic 3D shapes. \$2.00





DENSITY COMPARISON KIT

- Code: LER1210
- 46 piece kit
- · Accommodates both solids & liquids
- Includes 2 solid cubes, 2 solid cylinders, 2 clear cube containers with 500mL capacity, 2 clear cylinder containers with 390mL capacity
- 4 coloured inserts and 4 clear lids to use with containers
- 10 ping-pong balls & 20 cotton balls
- Visually understand the concept of density through experimentation
- Suggested experiments included in activity guide
- Suitable: Grades 3+ \$27.00

"GIANT" GIO SOLIDS

Code: LER3208

- · Set of 10. 15cm high
- · Fill with sand or water Explore shape & size and rela-

tionship between area and volume

· Excellent for classroom demonstration. Visually dramatic \$35.00



SAND TIMER

Code: IP094059

Adjustable timer between 5 seconds and 3 minutes. Different types of sand materials can be used for investigation. Designed for the many activities that require general or comparative timings to be taken.

Size: 14cm x 8cm

\$8.00



SLIDE ABACUS

Code: IP-132059

· Invicta traditional slide abacus with beads in 5 colours; Horizontal and vertical number scales

· 23cm x 15cm x 2cm \$19.50





LARGE GEOMETRIC SHAPES Code: GE2125

- Bright set of 25 shapes
- Shapes have a common three-inch dimension to illustrate relationships between area, volume, shape, form & size
 \$55.00

We also have catalogues for Technology Kits & Components, Tools, Solar & Solar Challenge, Physics, Clocks & Pens and a comprehensive Product Catalogue, which can be downloaded from our website.

We are progressively adding more items to our online catalogues and information. Please have a look - we would appreciate feedback on what else you would like to see. Thank you for your continuing support.