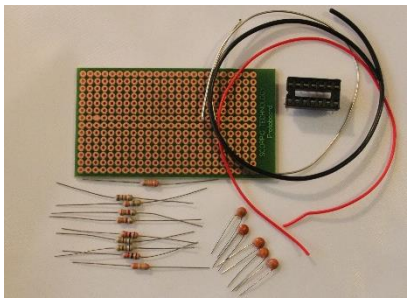
Projects for 2017

Scorpio Technology aims to provide students with stimulating and exciting projects that develop a broad range of skills in the Design, Creativity and Technology areas of the curriculum. We are pleased to announce exciting new range of projects for 2017.

SKILL DEVELOPMENT: Students learn by doing. The skills they develop come together to complete the learning experience. Scorpio Technology provides a wide range of kits and components that provide students with skills and challenges that take them through the Design Process.

SOLDERING: Soldering is an essential skill that challenges many students. The only way to improve this skill is to practice. Our new **Solder Practice kit** (code: SOLDPRAC) includes a protoboard, range of electronic components, tinned copper wire and multistrand wires.



Students become familiar with components and their polarity. Once the students become proficient at soldering they can tackle other simple electronic kits based on the protoboard (check our website).

MICROCONTROLLERS: PAT'S PROJECTS

Pat McMahon (Senior Technology teacher at Diamond Valley College in Melbourne) has been motivating students and teachers with his exciting micro-controller projects for over a decade. He has received five Australian, State and Territory, Regional Innovative Teacher and various Teacher of the Year Awards.

Many Victorian teachers have already experienced Pat's knowledge and enthusiasm for electronics in his workshops. We are certain that your students will enjoy learning using these motivational micro-controller projects.

In 2017 we are introducing a range of microcontroller projects. The basic unit is a programmable Picaxe 14M2 controlled Microcontroller which has 10 LEDs and a piezo buzzer. This allows the students to make the microcontroller and program a "Lights and sounds" display.

The basic microcontroller can be used as a part of other projects. Some even feature infra-red.

Picaxe Robotics projects give all students, at all levels, exposure to some great eye catching Robotic activities or LED projects which capture their imaginations and motivate them to learn new technologies.

What is a Microcontroller?
A microcontroller is a computer that is part of a single integrated circuit. It contains memory, programmable input/output peripherals as well as a processor. They are used in controlled devices such as mobile phones, cameras, microwave ovens, etc.

The following kits will operate with PAT'S MICROCONTROLLER, but do **NOT** include a Microcontroller – these are ADD ON PROJECTS for the microcontroller.

Check out our extensive range at: www.scorpiotechnology.com.au
The website includes catalogues, Lite Teaching units, decision charts and technical information. A great resource for all Design and Technology teachers.
Please sign up for our newsletter or check out our previous newsletters on the website.

SCORPIO TECHNOLOGY

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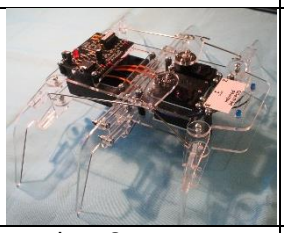
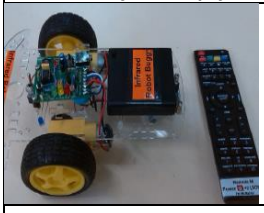
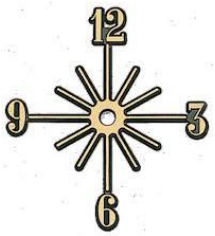
November 2016

PAT'S MICROCONTROLLER PROJECTS
(Programmable)

	KIT NAME	CODE	Solder	No solder	Mechanical	Electrical	Electronic	PCB	Programmable
 The basic unit is a programmable Picaxe 14M2 controlled Micro-controller which has 10 LEDs and a piezo buzzer. This allows the students to make the microcontroller and program a "lights and sounds" display.	PAT'S MICRO-CONTROLLER	PATSMICRO	•				•	•	•
The kit consists of an On-Off switch and 60 LEDs in 5 different colours, to be arranged in 10 rows. The micro-controller can be programmed to have each row illuminate separately, flash through the rows in sequence etc. 	ANIMATED DISC	PATSDISC	•				•	•	•
 This kit consists of an indoor Basketball set (backboard, hoop & ball), a 2.3" 7 segment display (counter), a microswitch (with a lever extension) and attaching parts. Every time you score the display records the goal tally.	BASKETBALL COUNTER	PATSCOUNT	•				•	•	•
This kit provides all the parts needed to build a 6 legged walking robot, which can go forward, in reverse, left and right. The legs are driven by 3 servo motors. The body is available in clear acrylic or plywood. 	HEXAPOD ROBOT	HEXAPODBOT	•		•	•	•	•	•
 The Robot Buggy has 2 independently driven wheels and a castor wheel, LEDs at the front and rear. Includes the motor driver components to solder to the microcontroller.	ROBOT BUGGY	BUGGY	•		•	•	•	•	•
This kit provides all that is required to convert the microcontroller to be able to be controlled remotely. It consists of an infra-red remote and the additional parts that need to be soldered to the microcontroller.	INFRA RED ADD ON	PATSIR	•				•	•	•

CLOCK MAKING SUPPLIES

We have added to our extensive range of quartz clock making supplies. The starburst style adhesive numerals provide a new dimension in clock design. Available in Arabic and Roman numerals and in a variety of sizes.



PEN MAKING SUPPLIES

We have added to our woodturning range. We now stock acrylic pen blanks, "Australia" clips, black pen pouches – great for gifts or presentations. The excellent resource "*The Pen Turner's Workbook: Making Pens from Simple to Stunning*" by Barry Gross is still available.

… WITH MORE TO COME ….(keep checking our website and Newsletters)

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