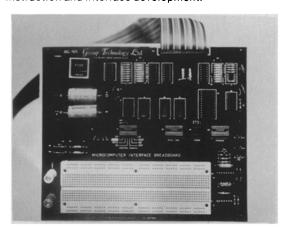
# MICROCOMPUTER INTERFACING

Apply the APPLE®, TRS-80®, and now the TIMEX-SINCLAIR® to Control External Devices • Teach Interfacing Skills • Demonstrate Science Principles

Now you can use the Apple®, Timex-Sinclair®, or TRS-80® microcomputers to sense external events, to control external devices, to transfer information between the computer and peripheral circuits of your own design, and to illustrate vividly many scientific principles. These excellent teaching tools allow you to see how microcomputer signals flow and how they can be used under BASIC program control to accomplish many useful tasks. With fully buffered address, data, and control buses and decoded addresses, these interface breadboards greatly enhance the capabilities of these computers for instruction and interface development.



The INNOVATOR® breadboards designed by the producers of the highly acclaimed Blacksburg Series of books have gained wide acceptance for teaching microcomputer interfacing as well as in industrial and personal applications. Detailed, step-by-step instructions guide the user from the construction of device address decoders and input/output ports to the generation of voltage and current signals for controlling servo motors and driving high-current, high-voltage loads. They are available in kit form or assembled and tested. A cable, operating manual, and text of experiments are included. An optional Experiment Component Package contains most of the components needed to do the experiments in the text.

 For the Apple II, II + , or IIe:

 Model BG-125KC2 (kit)
 \$249.95

 Model BG-125AC2 (assbld.)
 324.95

 For the TRS-80, Model I:
 219.95

 Model BG-101KC2 (kit)
 294.95

 Model BG-101AC2 (assbid.)
 294.95

The low-cost FD-ZX1 I/O board turns the Timex-Sinclair microcomputer into an automated measurement, data acquisition, and control instrument. Schools, colleges, industrial and academic technicians, scientists, and engineers can now afford enough interface systems for effective teaching or for developing dedicated automation instruments without investing more in the computer than in the instrument. A number of science experiments have been developed to aid teachers in illustrating scientific principles. Available as a kit or assembled, the FD-ZX1 includes cables, but not the solderless breadboard for constructing the interface circuits.

### For the Timex-Sinclair 1000, 1500, ZX81, Spectrum:

Model FD-ZX1K (kit)	\$69.95
Model FD-ZX1A (assbld.)	99.95
Solderless Breadboard, BG-10	18.00
For the TRS-80. Model III or IV:	

 Model BG-105KC4 (kit)
 265.00

 Model BG-105AC4 (assbld.)
 340.00

 Experiment Component Pkg., BG-130
 90.00

 $Write\ for\ our\ complete\ catalog\ of\ Blacksburg\ Series\ books\ and\ INNOVATOR\ and\ I/O\ hardware.$ 

Order from: **GROUP TECHNOLOGY**, LTD., P.O. Box 87SN, Check, VA 24072 (703) 651-3153

### ORDER FORM

ITEM	MODEL NO.	QTY.	PRICE	TOTAL	
	Subtotal				
	4% Tax (VA Residents)				
Up to \$100, add \$2.00; above \$100, add \$3.50 Shipping Charges					

Name			
City	Sta	te	_ Zip
□Check enclosed (l	JS bank)	□ Money Order	□Charge to:
MC or VISA Card No.			
Signature			
Make checks p	ayable to:	GROUP TECHNOL	OGY, LTD.
MAIL TO: Group Tech	nnołogy, Lt	d., P.O. Box 87SN,	Check, VA 24072



This Christmas give your friends a window on the world of science.

SCIENCE NEWS will give them a greater awareness and understanding of scientific progress, tell them what science is doing & why it is important to them!

This Christmas share **SCIENCE NEWS** with your friends. They will appreciate the opportunity to learn about new scientific developments and discoveries that can affect their lives, their jobs, their future. And in this day of changing social directions, they will especially appreciate the perspective **SCIENCE NEWS** gives to the issues involving science and society.

**SCIENCE NEWS** is the ideal gift for busy executives, professional people, scientists in search of an overview of all major fields of science, science teachers and students.

Why? Because it is planned for people on the go. It reports key developments clearly, accurately, concisely—in about an hour's reading time a week. For someone with no more than an hour to spare, **SCIENCE NEWS** is a reliable summary of important news. For the reader with more leisure, it is a guide to subjects worth pursuing in more detail in other scientific journals.

#### SPECIAL CHRISTMAS SAVINGS!

Your first gift subscription to **SCIENCE NEWS** is \$27.50. Each additional one-year subscription is only \$22.00—and you may include your own renewal or new subscription at this money-saving rate.

## SEND YOUR GIFT ORDERS NOW!

Use the convenient postage-paid reply card opposite this message. Or, if someone else has already used it, fill in the order form at the right and mail it today.

CI	21	а	M	~	AI	IA	10
S	7		N	v	1.4	AA	3

231 W. Center Street Marion, Ohio 43302

Please enter the following SCIENCE NEWS Christmas Gift Subscription:

One subscription for \$27.50

One subscription for \$	627.50	
Name	(Please print)	120
Address		
City	State	Zip
Each additional subso	cription \$22.00 (sav	ve \$5.50 each)
Name	(Please print)	
City		Zip
Name		
City	State	Zip
My name and addres	s as Donor is:	
Name	(Please print)	
Address		
City	State	Zip
(If more gifts are desired  Send gift announcer  Please enter or □ one year at the lower entitles me.	nent card to recipients extend my SCIENCE	3.

Foreign postage \$5.00 additional per year.

☐ Please bill me.

D443A-6