

# PRINTOUT

by Joseph B. Sidowski

## Products

### Digital Music Composer Kit

This "Tune Computer" uses a 7-IC digital circuit to make its own melodies. You can adjust sequence of notes, the tempo, the volume, and, on a "pseudorandom" basis, the frequency of the notes. By varying the six switches and six controls provided for these functions, you can set the unit to compose an infinite variety of 1-15 note melodies. Kit includes all parts, including speaker. Price \$10.00.

Cortlandt Electronics, Inc.  
16 Hudson Street  
New York, New York 10013

### Electronic Interval Timer

The six-position pushbuttons are adjusted to desired time settings. Any of the six buttons is depressed, thus engaging the unit to be timed and engaging the electronic timer circuit. At the end of the timing cycle, button pops up, disengaging unit being timed and electronic timing circuit. Timer is then ready for next timing operation. Reset time is instantaneous. Time interval ranges (adjustable): Button 1, 5 to 20 sec—white; Button 2, 10 to 60 sec—red; Button 3, 20 to 100 sec—yellow; Button 4, 40 to 250 sec—green; Button 5, 50 to 275 sec—blue; Button 6, 2 to 300 sec—orange. On request, any of the six buttons can be made adjustable from 5 sec to 5 min.

Matrix Research & Development Corp.  
533 Main St.  
Acton, Mass. 01720

### Phonocatheters

These phonocatheters are designed to monitor heart sounds at their sources. The single lumen model is used for sounds only; the double lumen is for sounds and blood samples. The preamplifier has voltage gain 100-1000, 100 Hz, impedance greater than 20 megohms.

Stoelting Co.  
1350 S. Kostner St.  
Chicago, Ill. 60623

### Cardio Clamps

Lumiscope's Cardio Clamps fit all EKGs and eliminate loose straps, messy cleanup, and subject discomfort. Guaranteed unbreakable.

The Lumiscope Co.  
836 Broadway  
New York, N.Y. 10036

### Plethysmograph

The single channel Model SSP-1 is a calibrated, volume displacement, segmental phethysmograph for assessing the state of peripheral circulation.

Electro-Diagnostic Instruments  
819 S. Main St.  
Burbank, Calif. 91506

### Infant Stethoscope

This infant stethoscope has a 1-in. diaphragm and provides improved localization of body sound. The unit is supplied with a removable nonchill sleeve on a 3/4 in. bell for greater infant comfort. A special unit is available for use in infant incubators.

Medical Products Division  
3M Co.  
P. O. Box 33600  
St. Paul, Minn. 55133

### ECG Recorder/Transmitter

Model 1684 ECG Cassette Tape Recorder/Transmitter converts the output signal of electrocardiographs and patient monitors into audible tone that can be stored and transmitted over phone lines. Reverse signal allows the researcher at the receiving station to alert the transmitting E to stop transmission. It also signals phone disconnect. An acoustically coupled FM tone to phone for monitoring ECG scope is on rear of the unit.

Parke-Davis  
Medical Instruments Div.  
180 Bear Hill Rd.  
Waltham, Mass. 02154

### Recording System

Data, Inc. (P. O. Box 2074, Fort Collins, Colo.) is marketing Model 1400B, standard one or two channels that interfaces directly between audio tape recorder and a physiological amplifier, e.g., EEG or ECG. Record and playback bandwidths of 312, 625, 1250, and 2500 Hz are provided by four switch-selectable IRIG standard center frequencies. Input voltages outside  $\pm 1.4$  V range are clipped to stay within limits. Prices: \$395 and \$675 for one or two channels, respectively.

### Respiration Monitor

International Therapeutics APNEA/Respiration Monitor uses a sensitive trasducer pad (1/32 in. thick) placed beneath the mattress which senses the S's respiratory movement and translates it into a flashing white light. The flashing light signals each breath. No electrodes or attachments to the S are required.

International Therapeutics, Inc.  
P. O. Box 36022  
Dallas, Tex. 75235

#### Paper Tape Reader

Electronic Engineering Company of California (EECO) of Santa Ana is advertising a paper tape reader, the Data Loader, built for reading continuously or in sequential blocks at 120 cps. A low-cost unit (\$289), it uses light-emitting diodes and phototransistors, and is claimed to have a self-cleaning read head.

#### Moving-Head Disk for PDP-11

The Data Miser 110 is designed as a PDP-11 add-on that includes all digital interface electronics, 1.25 million words of storage with an average access time of 75 msec and a data transfer rate of 10  $\mu$ sec/word. The unit requires less than 100 W of power. Price: \$1950 in single quantity.

International Memory Systems  
14609 Scottsdale Rd.  
Scottsdale, Ariz. 85260

#### Serial Impact Printer

The PRINTEC-100A full-character serial impact printer uses a 96-character font to provide upper- and lower-case printout and the "multiple split helix" concept. Key features of the new machines include 70-cps print rate (equivalent to 26 lines/min at 132 columns/line), ability to print 6-part forms on standard paper, disposable ink roller instead of ribbon, as well as inclusions of a 2-channel vertical format unit (VFU). The machine's 70-cps printing rate is advertised as providing a 5-fold edge over the IBM Selectric's 10-25 cps rate. The unit operates with electronically timed hammers banging the paper against the selected characters on a high-speed print wheel. High speed is achieved by using multiple-character fonts on a single print wheel. Using several sets enables the PT-100 series to print several times faster than conventional serial impact machines. Price: \$2800.

Printer Technology, Inc.  
Building 3G  
Sixth Rd.  
Woburn, Mass. 01801

#### Analog Counters

These analog counters are rugged, small, low-cost devices which occupy less than 1/10 of a cu. in., weigh 1 g, and have no moving parts. The counters are activated directly by any type of digital logic signal or similar pulse. No independent power is required, nor is EMI shielding necessary. Maximum counting rates are over 100,000/sec; storage capacities of 30,000 counts and up, with infinite memory.

Curtis Instruments, Inc.  
200 Kisco Ave.  
Mt. Kisco, N.Y. 10549

#### Single pc Board Microcomputer

Selling for \$695, this parallel 4-bit general-purpose self-contained microcomputer features a stable crystal clock that cannot be triggered by noise. The microcomputer is a complete operating system with cycle times of 11.8  $\mu$ sec. The unit consists of the following basic elements; a CPU, a ROM for assembled program storage, an expendable universal I/O bus and a computer clock. Options include RAM data storage expansion in increments of 80-word RAM IC chips to a maximum of 1280 words, ROM assembled program storage expansion in increments of 512-word preprogrammed ROM IC to a maximum of 8192 words.

Applied Computer Technology, Inc.  
17815 G Sky Park Circle  
Irvine, Calif. 92707

#### Miniature CRT (1-in.)

This CRT is capable of 350 ft L (P-1 at 7 kV) output from a useful area of 6 x 6 in. and operates over a 5-10 kV range at a minimum of 850 lines. All P-phosphors are available. The tube weighs 38 g and is 5.5 in. long. The flat face permits simplification of associated optical systems. Sub screens, black screen, and fiber optic screens are available.

Video Products, Inc.  
7550 San Fernando Rd.  
Sun Valley, Calif. 91352

#### Community Cages

Ward's community cages are designed for the observation and study of the behavior of small mammals. Gerbils, hamsters, and mice live in in these multiple-level design cages with the opportunity to move from room to room. Cages feature large exercise area, silent exercise wheel bearings, plastic base enclosure to keep litter in and drafts out, easy cleaning, and full view. A two-tier cage is 12½ in. high with a 14-in. diam with connecting ladders (Price: \$14). The three-tier cage is 17 in. high with a 14-in. diam (Price: \$17).

Ward's Natural Science Establishment, Inc.  
P. O. Box 1712  
Rochester, N.Y. 14603

#### Electromechanical Behavioral Equipment

Testan Scientific Instruments is advertising a line of versatile electromechanical programming modules for the behavioral sciences, including power supplies, session controller, relay panel, pulseformer, stepper, universal timer, decoder, audio generator, etc. The supplier indicates that all Testan modules can be placed side by

side on the same relay rack with LVE, BRS, and Scientific Prototype items. The circuit design supporting Testan modules is not limited to relays, diodes, and caps; it also includes transistors, SRCs, integrated circuits, etc. Other products include a goldfish shuttlebox (\$225), a single student laboratory kit (\$425) for use with the goldfish shuttlebox, and a modular rat shuttlebox (\$225).

Testan Scientific Instruments  
P. O. Box 267  
Davis, Calif. 95616

#### Fixation Behavior Kit

The Fixation Behavior Kit, Model PR-34 can be used to demonstrate phenomena such as saccadic suppression, Emmert's Law, the disappearance of stabilized images, and the way in which fixations vary when the eye is presented with different forms. The Kit presents a stabilized image, thus making it possible to obtain indices of where S is fixating.

Included with the Kit is a set of 20 slides which permit students to study experimentally the spontaneous fixation of the eye when confronted with the forms recorded on the slide set. The Kit also includes special student response sheets and comprehensive instructions. Development of the Kit was supervised by Dr. L. Kaufman, New York University. The complete Kit is priced at \$295, but items may be purchased separately. Image generator (Haidinger's Brush) is priced at \$97; the Ancorama slide projector is \$149.50; set of 20 slides is \$18; student response forms are \$4.95; tripod screen is \$31.50, rear screen projection unit is \$31.95; and the instruction manual is \$1.50.

Research Media, Inc  
4 Midland Ave.  
Hicksville, N.Y. 11801

#### Signal Detection Unit

This is a three-part instructional unit consisting of an introduction to signal detection theory, a description of experimental methods and data analysis, and a sample experiment using SDT methods to analyze recognition memory for high and low imagery words, suitable for a 1-week laboratory in either an introductory or basic experimental course. The only apparatus required is a set of word cards.

Part 1 presents the basic concepts of SDT within the framework of signal detection. It introduces the assumptions of normally distributed and overlapping sensation distributions resulting from noise alone and signal plus noise, sensitivity measured by  $d'$  and response bias measured by  $\beta$ . The generation of an ROC by variations in presentation probabilities, or payoffs is described and illustrated, and various ROC curves representing values of  $d'$  are displayed. Optional adjunct: A computer program to simulate an ideal observer

written in FORTRAN IV, and consisting of approximately 100 statements.

Part 2 deals with description of experimental methods and data analysis. Basic experimental procedures of SDT are yes-no, two-alternative forced choice, and rating scale.

Part 3 provides applications of SDT to recognition memory. Optional adjunct: Boxed set of 240 word cards of high and low imagery controlled for frequency in the language.

Prices: Parts 1, 2, or 3 (specify) cost \$.90 for single copies and \$10.80 per 20; set of 240 word cards is \$4.80; ideal observer computer program is \$18; complete instructor's set (Parts 1, 2, and 3, cards and program, is \$24. The unit was devised by Joan Gay Snodgrass of New York University.

Life Sciences Associates  
P. O. Box 163  
Baldwin, N.Y. 11510

## Briefs

#### Audio-Video Tape Playback

Matsushita Electric Industrial Company, Ltd. has unveiled a new concept in audio-video tape playback systems which displays a sequence of high-quality still pictures on a standard color TV receiver screen. The Panasonic color picture cassette player plays back pictures recorded on standard inexpensive Phillips-type audio cassettes. The cassettes can be used on both sides, while retaining stereo sound capability and compatibility with any audio cassette player. Video information is stored in two narrow bands near the center of the tape between the audio bands; rotating magnetic heads scan the cassette in the longitudinal direction.

The cassette tape travels at the standard 1-7/8 ips, allowing complete audio compatibility. Still pictures are shown for approximately 3.6 sec, but single pictures can be displayed for any multiple of 3.6 sec. Video information on the cassette displays a color picture of high resolution when the player is connected to any conventional color TV receiver. The video signal is accompanied by full stereo sound that can be played through a conventional stereo amplifier.

A regular C-60 audio cassette can store more than 1000 images plus its stereo soundtrack (16-mm film cartridges are bulky; shorter 35-mm filmstrips hold a maximum of 300 frames). Operation of the unit is relatively simple.

#### Surface Charge Transistor

The surface charge transistor (SCT) is a small semiconductor; several hundred can fit into the period at the end of a sentence. The use of the SCT in practical circuits depends on the rapidity of engineering developments.

The switching and amplifying of an SCT, unlike other transistors, do not rely on carrier flow through substrate material. They are purely electrostatic devices that use electrical charges on thin metallic electrodes to control the motion of other charges along the surface of a substrate. An SCT has a metal gate connection, and the source and receiver connections are metal electrodes (unlike the FET). The three electrodes are insulated from the substrate by a thin layer of silicon dioxide, so the electrostatic charge transfer is the only mechanism for passing information from source to receiver. A submicrosecond voltage spike must be applied to the receiver, since SCTs must be primed to work. The spike has the same polarity as the majority carriers in the substrate material. For a typical p-type SCT, the primary pulse would be 20 V positive with about a 0.1-microsec duration. The pulse sweeps most majority carriers out of the region around the receiver electrode. This creates an unstable depletion region that remains intact for several milliseconds, long enough to carry out thousands of high-speed computer-type operations. It is possible to control the rate of refilling of the depletion region by placing a positive charge (with p-types) on the transfer gate electrode. The transfer gate acts as the controlling element, since the greater the charge on the gate, the more slowly the receiver depletion region fills. The refilling process is hastened by an electrical charge on the source electrode. But the gate potential controls and can stop the charge transfer rate. Varying the relative sizes of the electrodes allows the designer to control most charge transfer between source and receiver with only a small charge on the transfer gate. The SCT is also light sensitive; light falling on the device hastens disappearance of the depletion region.

#### Customer Relations (ICs)

A buyer reports (June 1973, *Popular Electronics*) purchasing over \$400 worth of ICs, with all ICs being operational, pins clean, properly identified, and about 40% of the package containing the higher quality ceramic varieties rather than plastic. His orders covered about 90% of all ICs offered by the company, about 1000 devices. The supplier was Solid State Systems, Inc., P. O. Box 773, Columbia, Mo. 65201. The company does not appear to be a "surplus" dealer, but very reasonable prices are offered on digital and linear ICs and numeric readouts; universal decade counting units in various configurations; voltage regulators; resistors, capacitors, transformers, and Molex IC socket pins.

#### Soviet Minicomputers

The Soviet Union is promoting two minicomputers for scientific applications. The MIR-1 is a 12-bit machine and reportedly sells for \$5000. Of more recent vintage, the MIR-2 has graphics capability.

#### PDP-11 Cross Assembler

Compata, Inc., of Tarzana, Calif., is marketing Bias, a

cross assembler for the DEC-11/20 and -11/45 series of minicomputers. Bias permits users to perform assembly and linkage functions on large-scale CPUs, such as IBM 360/370s, B6700s, or UNIVAC 1000s. The cross assembler is written in ASA FORTRAN and is available at a one-time cost of \$1500.

#### Minicomputer Programming Service

First Data Corp. of Waltham, Mass., is providing program preparation by way of a time-shared route with MIMIC. The MIMIC system offers on-line editing for creating and updating source programs, assembling, loading, and interactive debugging under simulation for most of the major mini lines, such as the NOVA, PDP-11, PDP-8, and the GRI-99. Programmers can work on mini software projects on-line to a large time-shared computer.

#### Keyboard Display (CRT) Terminals

Suppliers of keyboard display terminals are listed below.

Acrodyne Data Services  
1217 Summit Ave.  
Union City, N.J. 07087

Adage  
1079 Commonwealth Ave.  
Boston, Mass. 02215

Ann Arbor Terminals  
918 Green St.  
Ann Arbor, Mich. 48104

Applied Digital Data Systems  
100 Marcus Blvd.  
Hauppauge, N.Y. 11787

Beehive Medical Electronics  
1473 S. 6th W.  
Salt Lake City, Utah 84104

Bunker-Ramo  
Trumbull Industrial Park  
Trumbull, Conn. 06611

Burroughs Corp.  
Second Ave.  
Detroit, Mich. 48232

Car-Mel Electronics  
5794 Venice Blvd.  
Los Angeles, Calif. 90019

Centronics  
1 Wall St.  
Hudson, N.H. 03051

Computer Communications  
5933 W. Slauson Ave.  
Culver City, Calif. 90230

Computer Optics  
Berkshire Industrial Park  
Bethel, Conn. 06801

Courier Terminal Systems  
2202 E. University Dr.  
Phoenix, Ariz. 85034

Data Trends  
50 Intervale Rd.  
Parsippany, N.J. 07054

Data 100 Corp.  
7725 Washington Ave. S.  
Minneapolis, Minn. 55435

Datapoint  
9725 Datapoint Dr.  
San Antonio, Tex. 78229

Datamedia Corp.  
7300 N. Crescent Blvd.  
Pennsauken, N.J. 08110

Delta Data Systems  
Woodhaven Industrial Park  
Cornwells Heights, Pa. 19020

Digi-Log Systems  
300 E. Lancaster Ave.  
Wynnewood, Pa. 19096

Digital Information Systems  
P.O. Box 88580  
Seattle, Wash. 98188

Di/Phase  
914 N. Rengstorff Ave.  
Mountain View, Calif. 94040

Four-Phase Systems  
10420 N. Tantau Ave.  
Cupertino, Calif. 95014

Hazeltine Corp.  
Greenlawn, N.Y. 11740

Imlac  
150 A St.  
Needham, Mass. 02194

Incoterm  
6 Strathmore Rd.  
Natick, Mass. 01760

Information Displays, Inc.  
33 N. Bedford Rd.  
Mt. Kisco, N.Y. 10549

ITT/Data Equipment & Systems  
E. Union Ave.  
E. Rutherford, N.J. 07073

Infoton  
Second Ave.  
Burlington, Mass. 01803

Kustom Electronics, Inc.  
1010 W. Chestnut  
Chanute, Kans. 66720

Lear Siegler/Electronic Instruments  
714 N. Brookhurst St.  
Anaheim, Calif. 92803

Megadata  
10 Evergreen Pl.  
Deer Park, N.Y. 11729

NCR  
Dayton, Ohio 45409

Olivetti America  
1 Park Ave.  
New York, N.Y. 10016

Princeton Electronic Products  
P.O. Box 101  
New Brunswick, N.J. 08902

Raytheon Data Systems  
1415 Boston-Prov. Tnpk.  
Norwood, Mass. 02062

Research, Inc.  
P.O. Box 24084  
Minneapolis, Minn. 55424

Sanders Data Systems  
Daniel Webster Hwy.  
Nashua, N.H. 03060

Sugarman Laboratories  
3 Fairfield Ct.  
Plainview, N.Y. 11803

Sycor  
117 N. First St.  
Ann Arbor, Mich. 48108

Sys Computer  
17-25 DiCarolis Ct.  
Hackensack, N.J. 07601

TEC Inc.  
9800 N. Oracle  
Tucson, Ariz. 85704

Tektronix, Inc.  
P.O. Box 500  
Beaverton, Oreg. 97005

Terminal Communications  
P.O. Box 27228  
Raleigh, N.C. 27611

Texas Scientific  
8120 Westglen Dr.  
Houston, Tex. 77042

Trivex  
3180 Redhill  
Costa Mesa, Calif. 92627

Ultronic Systems  
Mt. Laurel Industrial Park  
Moorestown, N.J. 08057

Univac  
P.O. Box 500  
Blue Bell, Pa. 19422

Video Data Systems  
34 Sylvia Rd.  
Plainview, N.Y. 11803

Video Systems Corp.  
7300 N. Crescent Blvd.  
Pennsauken, N.J. 08110

Westinghouse Canada Ltd.  
P.O. Box 510  
Hamilton, Ontario, Canada

Wiltek  
59 Danbury Rd.  
Wilton, Conn. 06897

Wyle Computer Products  
128 Maryland St.  
El Segundo, Calif. 90245

Xerox Data Systems  
701 S. Aviation Blvd.  
El Segundo, Calif. 90245

#### Turnkey Minicomputer System

Mini-Computer Systems, Inc. of Scarsdale, New York, purchases processors and peripherals (hardware) from original equipment manufacturers (OEM), integrates this hardware with special applications programs and operating systems (software), then sells or rents the final

“turnkey” systems to its customers. A typical Mini-Com system configuration would include a minicomputer (from Data General Corp.), disk memory (Lomec, Diablo, or Century Data Systems), display terminal (Hazeltine), and printer (e.g., Centronics, Teletype, or Mohawk). Mini-Com maintains and supports their customers’ systems and also provides various special computer and engineering consultation services. The company recently completed development of MICOS, an interactive on-line operating system designed around BASIC. MICOS supports up to 64 commonly used input/output devices and is device independent, i.e., the devices may be of mixed function and manufacture.

#### Solid State Camera

Telesensory Systems, Inc. has announced a 3-in.-long solid state camera designed for manual scanning of alphanumeric characters. The Optacon camera features a 144-element two-dimensional silicon retina, with built-in preamplification, a self-contained illumination source, and a zoom lens with magnification variable from 0.65 to 1.6.

#### Lasers

Lasers are being used for a variety of purposes in the biological, medical, and behavioral sciences. One of the first important biomedical applications was ocular photocoagulation; others include fluorescence and focused microscopy. In conjunction with the microscope, the laser is being used either as a light source, with special characteristics to illuminate biological objects for microscopic observation, or as a highly controlled and localized energy source that can cause discrete small-scale physical and chemical changes in biological material. Holographic microscopy can “freeze” a biological specimen in an instant, and its three-dimensional information content can be recorded on film and reconstructed on demand. Holographic interferograms can be prepared to examine a specimen’s growth mechanism. A burnable laser allows the investigator to make double-exposure holograms at two different wavelengths which, when reconstructed, produce contour fringes on the surface of the specimen so that its size and shape can be measured. The researcher can also prepare real-time holographic interferograms, so that specimens can be studied holographically in vivo.

Companies supplying laser equipment for use in medical, biological, and behavioral research include the following:

American Optical Corp.  
(Attn: D. A. Belforte)  
Laser Products  
Southbridge, Mass. 01550

Avco Everett Research Lab., Inc.  
(Attn: L. M. Rittenberg)  
2385 Revere Beach Pkwy.  
Everett, Mass. 02149

Britt Electronic Products  
(Attn: J. B. McAdams)  
2944 Nebraska Ave.  
Santa Monica, Calif. 90404

CW Radiation Inc.  
(Attn: M. Eliason)  
111 Ortega Ave.  
Mountain View, Calif. 94040

Candela Corp.  
(Attn: R. H. Herrin)  
14 Charles St.  
Needham Heights, Mass. 02194

Carson Laboratories, Inc.  
(Attn: W. Merrell)  
375 Lake Ave.  
Bristol, Conn. 06010

Chromatix  
(Attn: W. Lockhart)  
1145 Terra Bella Ave.  
Mountain View, Calif. 94040

Coherent Radiation  
(Attn: C. R. Jordan)  
3210 Porter Dr.  
Palo Alto, Calif. 94303

Control-Laser  
(Attn: L. McDaniels)  
11222 Astronaut Blvd.  
Orlando, Fla. 32809

GEN-TEC Inc.  
(Attn: P. Begin)  
2625 Dalton St.  
Quebec 12, Canada G1P 3S9

General Photonics Corp.  
(Attn: B. Bernard)  
3004 Lawrence Expwy.  
Santa Clara, Calif. 95051

Hadron Inc.  
(Attn: H. M. Popkin)  
800 Shames Dr.  
Westbury, N.Y. 11590

Hughes Aircraft Co.  
(Attn: R. P. Roemer)  
Electron Dynamics Div.

3100 W. Lomita Blvd.  
Torrance, Calif. 90509

Laser Energy Inc.  
(Attn: S. Refermat)  
325 Mt. Read Blvd.  
Rochester, N.Y. 14611

Liconix  
(Attn: M. W. Dowley)  
156 E. Dana St.  
Mountain View, Calif. 94040

Lumonics Research Ltd.  
(Attn: G. A. Mauchel)  
1755 Woodward Dr.  
Ottawa, Canada K2C 0P9

Molelectron Corp.  
(Attn: R. J. Reynolds)  
930 Thompson Pl.  
Sunnyvale, Calif. 94086

Phase-R Corp.  
(Attn: S. E. Neister)  
P.O. Box G-2  
New Durham, N.H. 03855

Photon Sources, Inc.  
(Attn: R. Scherer)  
37100 Plymouth Rd.  
Livonia, Mich. 48150

RCA  
(Attn: P. H. Vokrot)  
New Holland Ave.  
Lancaster, Pa. 17604

Reich Associates  
(Attn: E. Reich)  
P.O. Box 73  
Plano, Tex. 75074

Spectra-Physics, Inc.  
(Attn: C. Schulthess)  
1250 W. Middlefield Rd.  
Mountain View, Calif. 94040

Synergetics Research, Inc.  
(Attn: S. Kremen)  
741 Alexander Rd.  
Princeton, N.J. 08540

TRW Instruments  
(Attn: R. L. Wallstrom)  
139 Illinois St.  
El Segundo, Calif. 90245

### Small-Animal Test Environment

The CI modular test cage is designed for a wide variety of small laboratory organisms, including rats, pigeons, squirrel monkeys, guinea pigs, Japanese and California quail, marmosets, and almost any other organism of suitable size and with a behavioral repertoire compatible with the available modules.

The major ideas behind the design of this cage are threefold. First, to offer the most convenience in configuration to the user in initial selection and subsequent modification of the test environment.

Second, to provide a simple and economic means of meeting individual preferences and requirements in the stimulus-response devices required and their locations vis-a-vis symmetry, height from the floor, and number of devices; and to do all of this with standard "off the shelf" units.

Third, to provide the users with readily available individual devices that they may add to a CI cage at any time to increase the complexity of the environments or to change over to another organism or to purchase separately, without complicated ordering, to add to their own cages.

Coulbourn Instruments, Inc.  
Box 2551  
Lehigh Valley, Pa. 18100

### Minicomputer Checks Teeth

M. Shapiro's Computerized Mass Screening for Dental Decay System can examine 1500 patients an hour and is seen as a major breakthrough in large-scale treatment programs such as public clinics. Developed at Drexel University, the system merely requires that a dental technician take one X-ray of each patient's mouth. On the X-ray film, decayed, filled, or missing teeth show up as varying patterns of light and dark. These patterns are translated into information a computer can understand. The computer then prints out what it reads from individual X-ray film or summarizes data from an entire group. The computer is a DEC PDP-12.

### Conference on On-Line Computers in Psychology

Call for papers and symposia for the National Conference on the Use of On-Line Computers in Psychology. The Program Committee will consider papers and symposia from any individual(s) on any topic related to the applications of on-line computers in psychology. Abstracts of papers and symposia must be received on or before August 15, 1973. Send to the Chairman of the Program Committee: Peter G. Polson, 2690 Heidelberg Drive, Boulder, Colo. 90303. The 1-day meeting of the conference will be held at St. Louis University, St. Louis, Mo. on October 31, 1973, prior to the Psychonomic Society meetings on November 1.