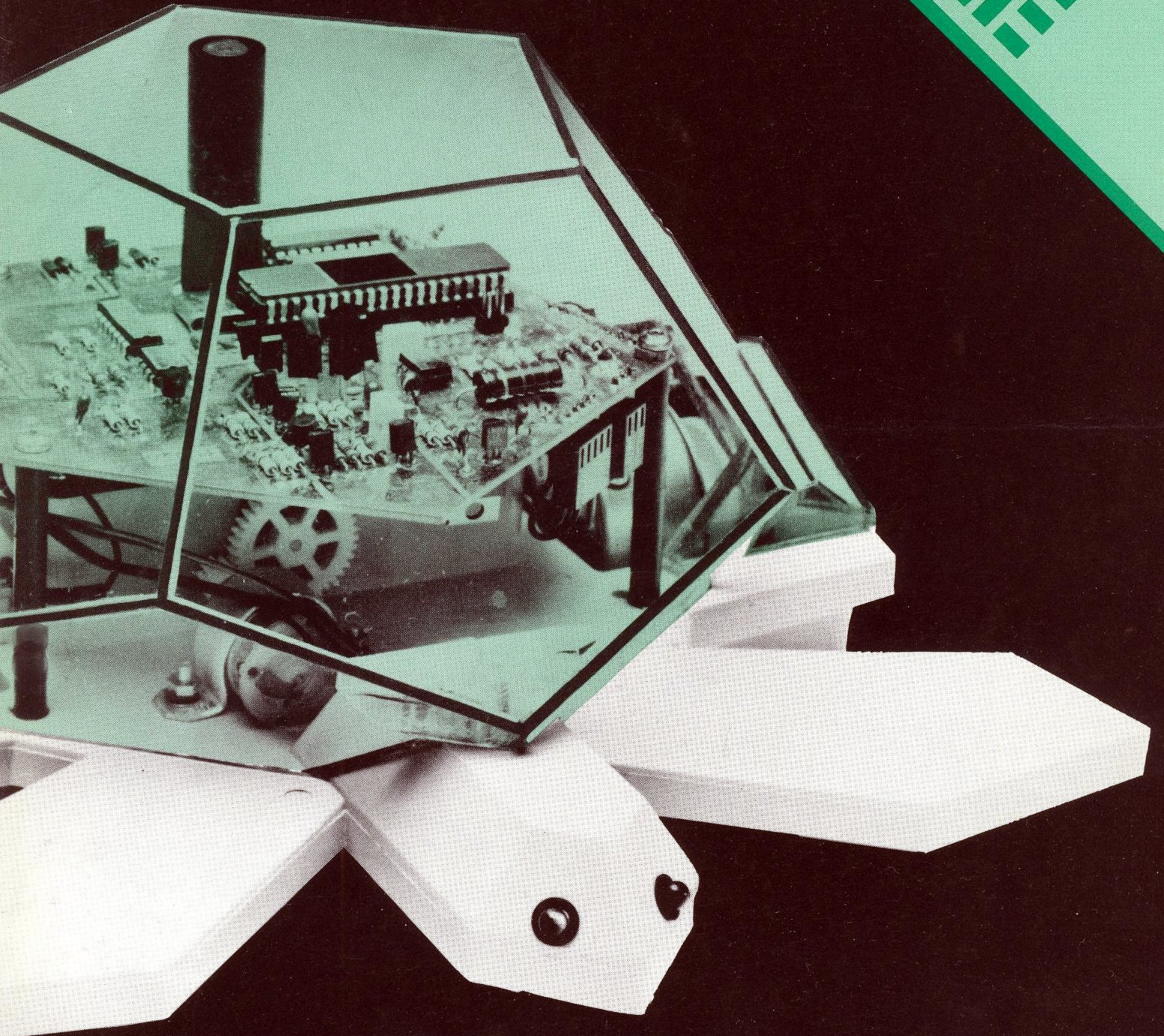


# MAINTAIN THE TURBINE



# THE VALIANT TURTLE

## LOGO AND VALIANT TURTLE

Most children are now familiar with computers. They are in most schools and many homes. There is much talk about the "Micro-revolution", but in many schools computers merely regurgitate pages from text books, and in most homes they are used as video-game machines.

Computer scientist and educationalist, Seymour Papert, proposed an alternative, "Rather than have the computer program the child, let the child program the computer."

During the 1970's and early 1980's BASIC was the only widely available programming language. With its difficult abstract syntaxes it is inaccessible to most children.

LOGO, an easy to learn, high level language has been available for several years on mainframe computers. It was developed at the Massachusetts Institute of Technology by a team working with Seymour Papert. They designed LOGO to be accessible to young children.

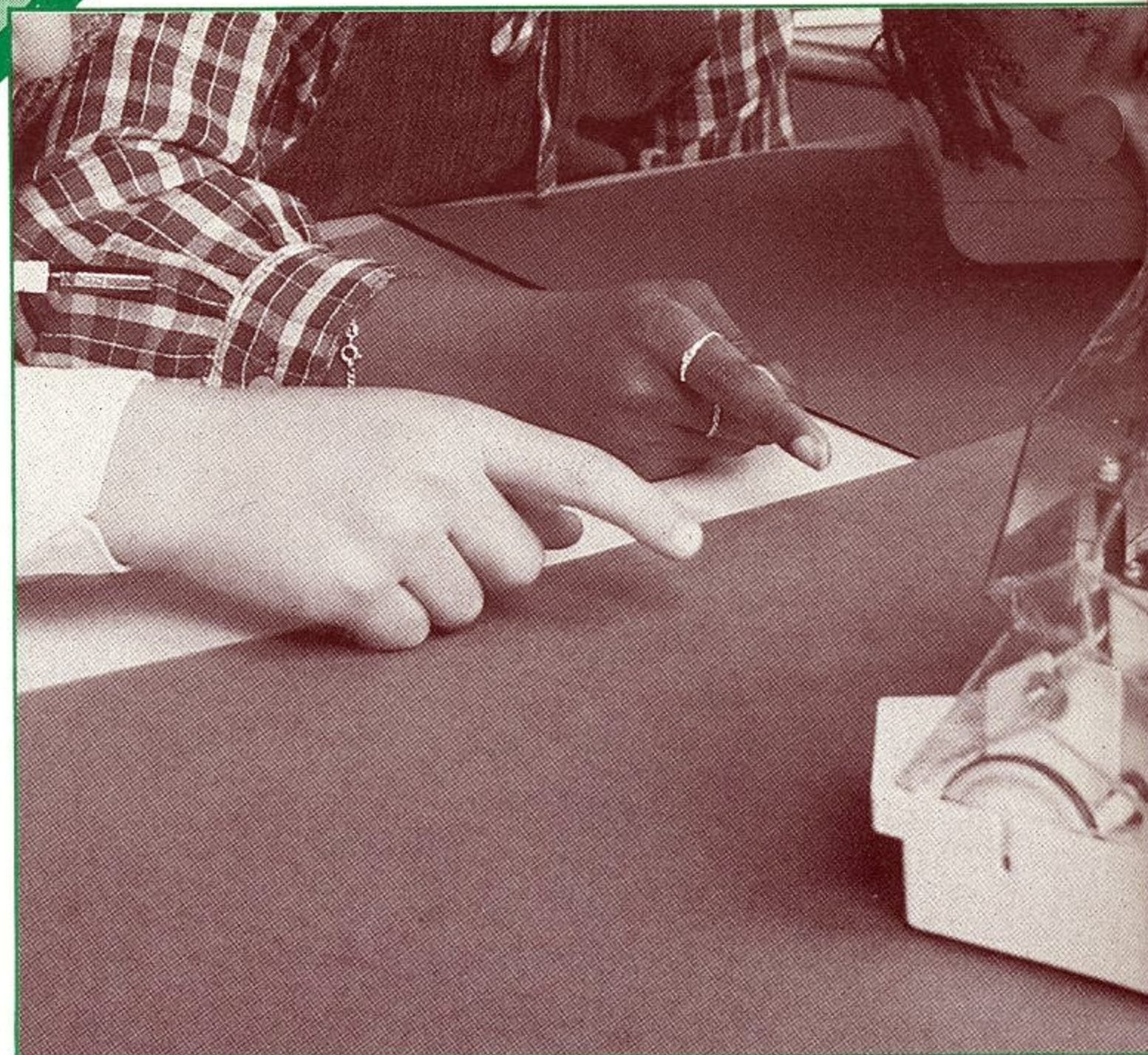
New technology has moved LOGO from the mainframes to the micros. "Letting the child program the computer" is now a practical possibility.

Seymour Papert realised that children only understand abstract concepts of programming and mathematics if they are presented in a concrete form.

The cybernetic Turtle is that form.

The Turtle is the gateway into the world of LOGO. The turtle has been used to teach LOGO to four year olds and Pascal to undergraduates.

It carries a pen which can be raised and lowered. It moves backwards and forwards, and turns right and left. By telling the Turtle where to go, and teaching it new words, the child learns to program the computer.



LOGO and the Turtle have created great interest amongst educationalists. LOGO is part of the curriculum in many primary schools.

Other applications of the Turtle are limited only by your imagination. It is an ideal introduction to Robotics, a revolutionary method of teaching geometry and a precision drawing instrument. Children have choreographed several Turtles to perform a ballet.

## REMOTE-CONTROL

Valiant Designs have produced the world's first remote-controlled Turtle. Other versions are restricted in accuracy and movement, by cords connecting them to the computer.

## TURTLE SHAPE

The Valiant Turtle's shape makes it obvious which way it is facing. Children do not get confused about which is forward, back, right or left.

## INFRA-RED

An infra-red transmitter plugs into a port on the microcomputer and sends signals which are converted by the Turtle's logic control into moves, turns and pen action.

## RECHARGEABLE

The ten internationally available nickel cadmium batteries can be recharged by plugging a power adaptor into a socket on the Valiant Turtle. The power adaptor is supplied with the Turtle.

## ACCURACY

The Valiant Turtle's two independent stepper motors, make it the most accurate Turtle on the market. A simple adjustment mechanism allows the Turtle to perform with maximum precision.

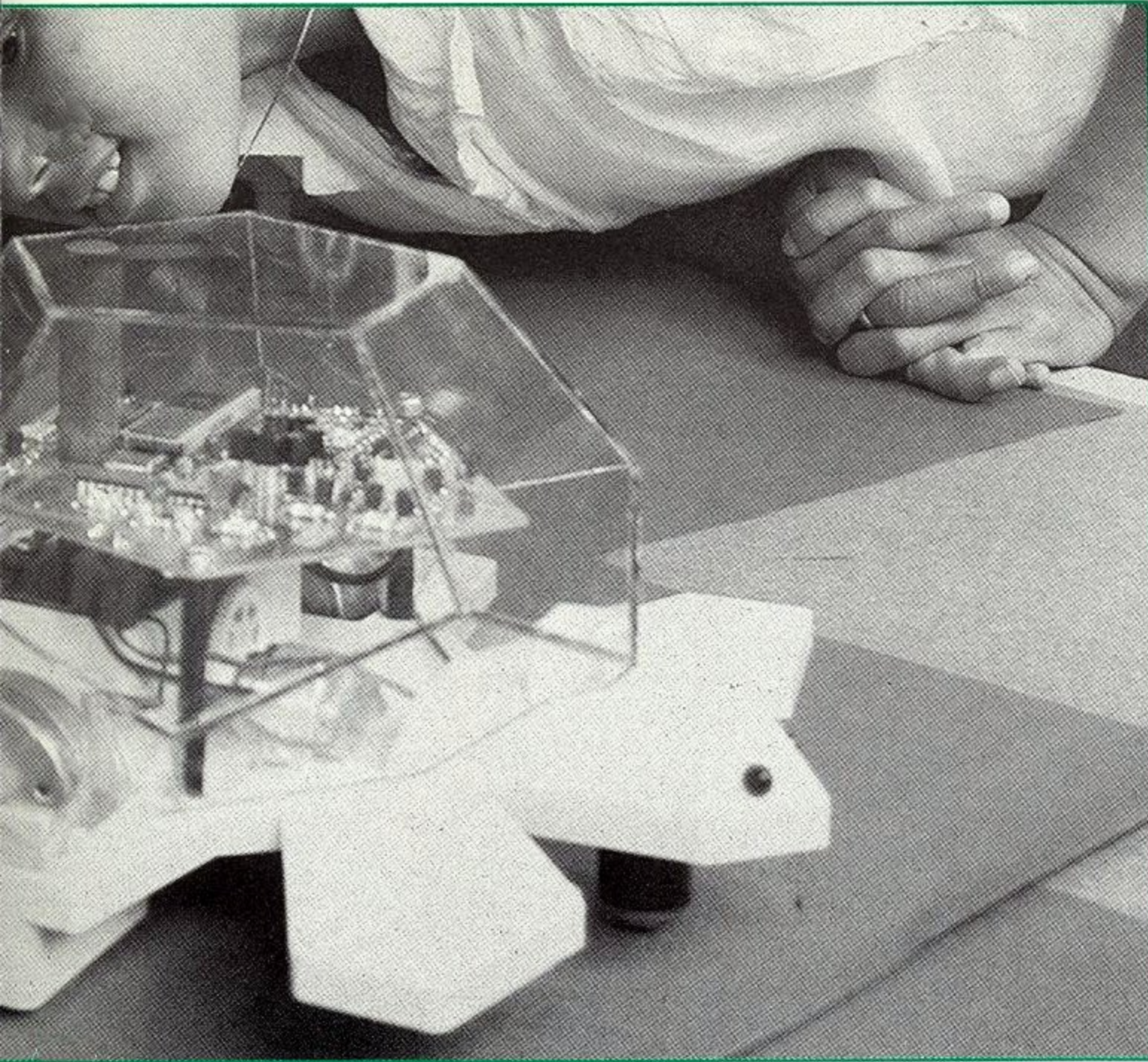


Photo Courtesy of Educational Computing

## POWER INDICATOR

The Valiant Turtle's two illuminated eyes serve as power indicators, going out before any other functions fail.

## INTERFACING

The Valiant Turtle can be used with most popular micro-computer systems, including: Apple, BBC, Commodore, Digital Rainbow, IBM, Spectrum, RML 380Z and 480Z. Valiant provide interface programs to enable the Turtle to run from popular versions of LOGO, and Turtle Graphics programs such as Dart and Arrow.

## TURTLE GRAPHICS SOFTWARE

Valiant provide their own Turtle Graphics software which enables graphics procedures to be built and edited.

## PEN

The Valiant Turtle uses most Berol pens. You don't have to send away for special expensive replacements.

## MOVEMENT

The Valiant Turtle moves in units of 1cm. but can be reprogrammed to move in units of 1mm, 1" or 1m. It turns in units of 1 degree.

## ARCS

The Valiant Turtle has the facility to draw smooth circles and arcs.

## DOCUMENTATION

Valiant provide a comprehensive technical manual and a book for parents, teachers and children on LOGO and the Turtle.

## COMPLETE PACKAGE

The Valiant Turtle comes as a complete package: Turtle, Batteries, Communicator, Pen, Power adaptor, Manuals and Software.

## LOW PRICE

Valiant Turtle costs less than any of its rivals.

## AVAILABILITY

Valiant's production facilities are geared to meet high-volume demand.





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