



WMP

The hobbyist computer from RCA.

A new low-cost video interface processor that lets you create and play video games, generate graphics, and develop microprocessor control functions.

RCA

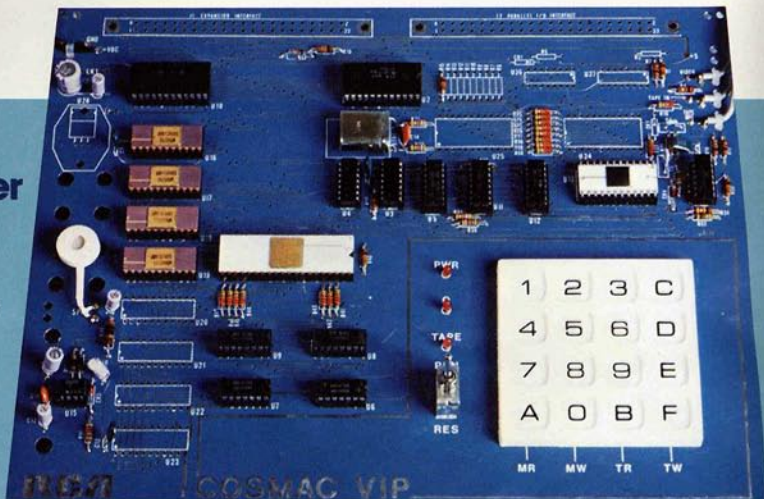
The COSMAC VIP kit introduces a

The COSMAC VIP is an elegant computer. Compact. Clean. Uncluttered. Yet powerful. And the whole idea behind it is fun.

RCA felt that a hobbyist computer should be low cost, easy to use, versatile, expandable, and, as soon as it is assembled, something the whole family could enjoy -- from the most serious hobbyist to the younger school-aged members of the family. The COSMAC VIP is that kind of a computer.

COSMAC VIP. A low-cost computer on a card.

The COSMAC VIP video interface processor incorporates high-technology LSI circuitry. The RCA COSMAC CPU. A unique video display control chip. State of the art 4K-bit static RAMs. A CMOS 4K-bit ROM operating system.



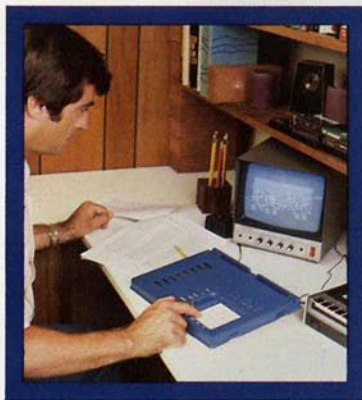
The CDP1802 8-bit microprocessor combines CMOS technology and the elegant COSMAC architecture. These features have made it the choice in a wide range of applications. TV games. Automotive engine control. Factory automation. The CDP1861 chip provides a video-frequency output signal with sync and was especially designed to interface the COSMAC CPU to a low-cost TV monitor.

The strong I/O capabilities of its microprocessor make the COSMAC VIP well suited to control-oriented projects for both home and office.

Here are the key hardware elements of the COSMAC VIP:

- Single PC card (8½ x 11") using RCA-CDP1802 microprocessor.
- 2048-byte RAM using 4K-bit static RAMs.
- Graphic video display interface via CDP1861 chip.
- Built-in hex keyboard.
- 100-byte-per-second audio tape cassette interface.
- LED indicators for power-on and cassette operation.
- Crystal clock and sound effects circuit.
- Small wall plug regulated power supply provided (CDP18S023, 5V dc, 600 mA output).
- RUN/RESET Switch for program and operating system initiation. The COSMAC VIP is also prewired for on-card memory and I/O expansion.

new world of computer fun for just \$275.



Easy to operate.

If you think operating a hobby computer has to be difficult, the COSMAC VIP will change that. Even without previous computer experience, you can master its operating procedures in a single evening. That's because the COSMAC VIP's versatile operating system, built into a ROM, makes it easy to:

- Load programs into RAM from the hex keyboard.
- Record contents of RAM on tape cassettes.
- Transfer tape-recorded programs into RAM.
- Display memory bytes in hex on CRT.
- Step through RAM contents.
- Examine microprocessor registers.

Easy to program.

As a real computer hobbyist, you'll want to do your own programming as soon as you can. The COSMAC VIP has a language all its own. Just to make programs for games and graphics simple to create. And compact.

This interpretive programming language is called CHIP-8. It consists of 31 easy instructions each of which is two bytes or four hex digits. All you need is one instruction to generate a random byte, read in a hex keyboard digit, display a pattern on the video screen, sound a tone, increment a variable, set or test a real time clock.

Sixteen one-byte variables are provided. Subroutine nesting and machine language inserts are permitted. For example, a programmed video kaleidoscope requires less than 64 instructions. A rocket launching, space ship intercept video game requires 104 instructions including on-screen decimal scoring.



A complete guide to the COSMAC VIP.

Written by a hobbyist for hobbyists, the COSMAC VIP Manual is a complete and understandable cookbook for setting up the kit and operating the COSMAC VIP. With it you can quickly get started with fun and games for the whole family. The Manual provides:

- Kit assembly instructions. (Assembly requires only the equipment a typical electronic hobbyist should have.)
- COSMAC VIP operating procedures.
- Test programs and trouble shooting.
- Listing of 20 video games.
- Expansion of COSMAC VIP.
- Machine language programming.
- CHIP-8 interpreter programming technique and listing.

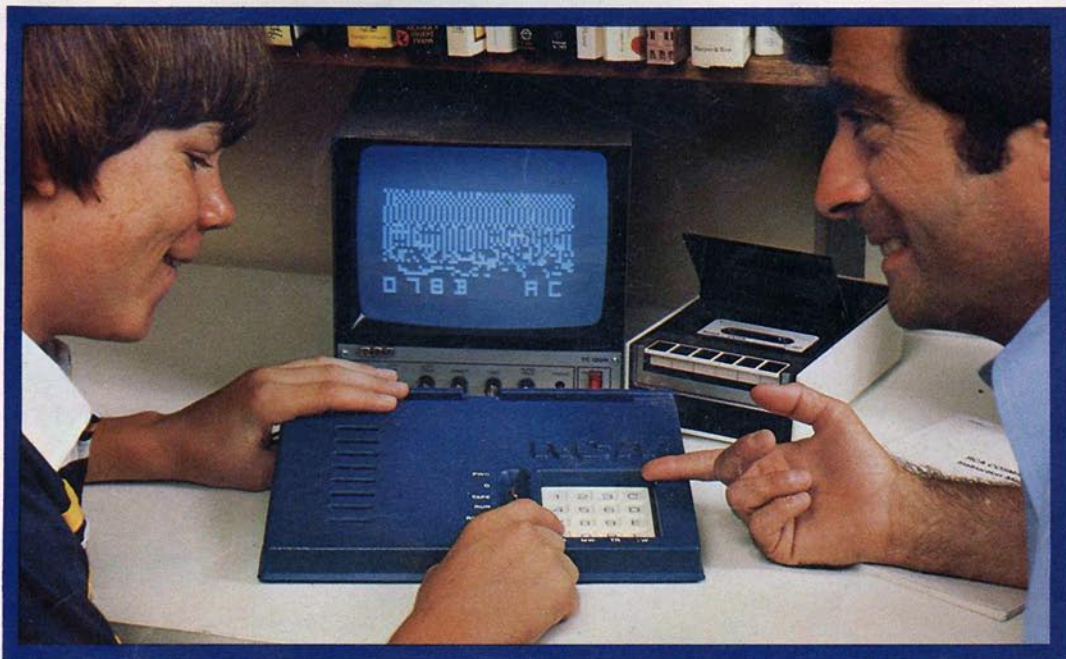
A computer with a future.

Beyond drawing video pictures, playing games, and creating your own programs – the COSMAC VIP is ready to grow even further with you. For example, you may want to get involved with machine language programming. Or develop your own language. Or learn microprocessors. Or move into a wide range of microprocessor control applications.

Here's how the COSMAC VIP can be expanded to increase your capabilities:

- Add memory up to a total of 32,000 bytes.
- Add I/O ports (up to 19 lines on-card) to interface relays, sensors, low-cost printer, or ASCII keyboard.

A comprehensive 44-pin interface provides all CDP1802 microprocessor signals for the fairly skilled circuit designer to add almost anything to the system.



COSMAC VIP. The computer for the whole family.

To make the COSMAC VIP low cost, we designed it around high-technology LSI circuits and aimed it at video graphics and games. To make it interesting and practical for the family, we provided programs for 20 games. Some strictly fun. Some educational. All ready to load and record.

To make the COSMAC VIP a real challenge for even the most serious computer hobbyist, we supplied a new language to help you create your own programs. And made it easy to expand into the worlds of machine language and microprocessor control applications.

How to get your COSMAC VIP kit.

To get your COSMAC VIP kit, complete the coupon below. For additional information telephone (201) 526-6141.

RCA's price for the COSMAC VIP is \$275 in kit form.

Make checks and money orders payable to: RCA COSMAC VIP. (Allow eight weeks for delivery)
RCA COSMAC VIP, New Holland Pike, Lancaster, Pa. 17604.

I would like to order _____ COSMAC VIPs (CDP18S022) at \$275.00 each, in kit form. (Offer good through December 31, 1977)

Check/ Money order is enclosed in the amount of \$ _____.

(Please type or print)

Name _____

Address _____

City, _____ State, _____ Zip _____

Copyright 1977 by RCA Corporation
(All rights reserved under
Pan-American Copyright Convention)

Trademark (s) Registered®
Marca (s) Registrada (s)

RCA's written limited warranty can be obtained
upon request by writing to RCA Solid State,
VIP Marketing, Somerville, N.J. 08876.

RCA Solid State