

MW, NR, AS.  
NETWORK

# THE MAGAZINE OF TOMMOROW COMP — TRONICS

50p

REVIEW OF

APRIL 1982

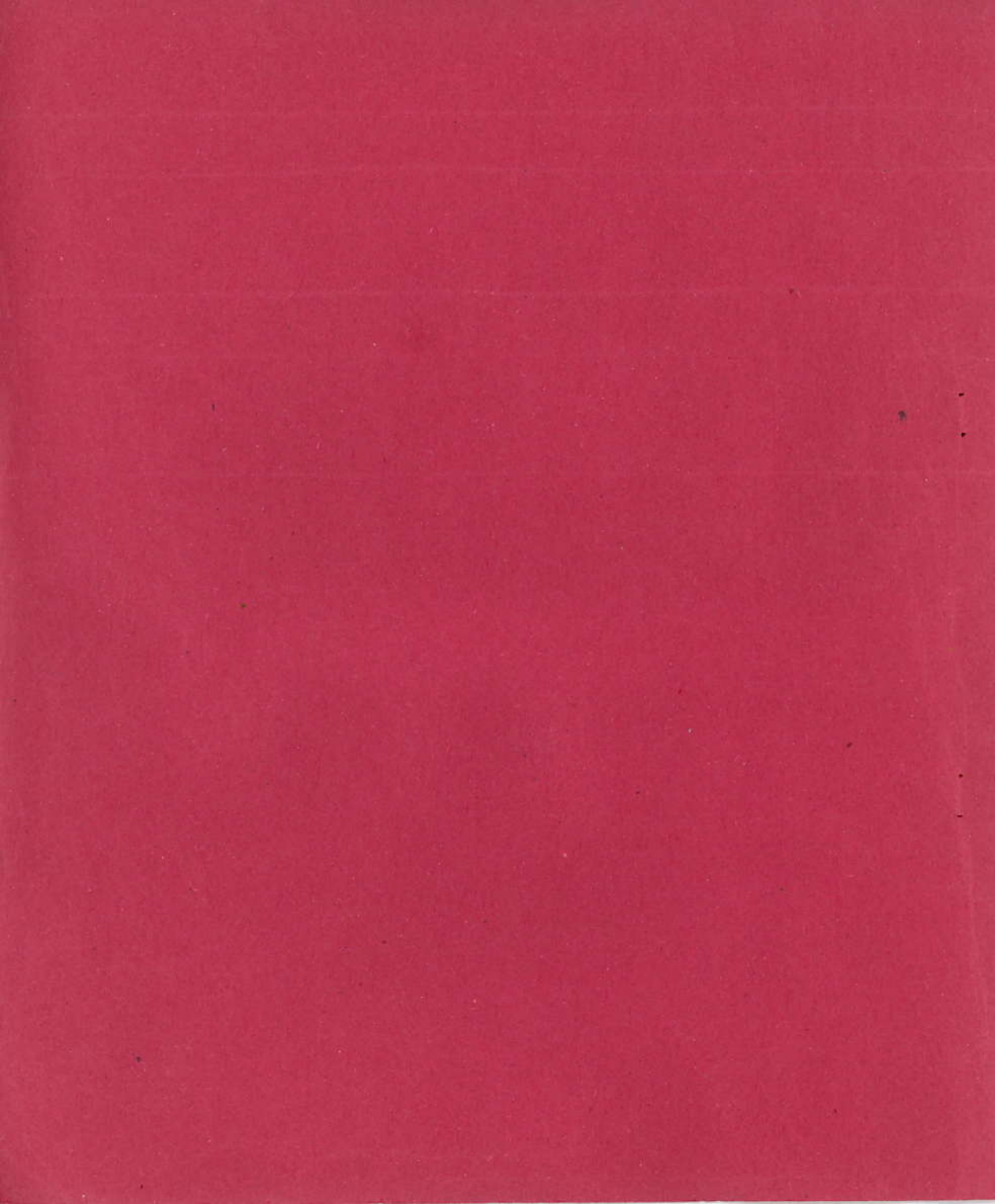
## The Acorn Atom



also the ZX81

Lots of programs  
circuits and Ads.

Also a reveiw  
of the 'Computer  
Programme'



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Pg. 19-20. Glossary. some useful  
computer and Electronics  
words

Centre pages. Your own pull-out  
poster telling you  
about the symbols on  
circuit diagrams.

Editor & Co Computer Consultant

MARK WICKENS

Mark Wickens

Computer Consultant

NIGEL RAINER

Raine

Electronic Consultant

ANDREW SHARP

Andrew S

# The Acorn Atom home Computer

by Nigel Rainer

This week I was given an Atom computer to use and write about. I found it a very good computer but it has a few drawbacks. The graphics are almost up to the standard of the Apple computer. You can also make the graphics move. The graphics can be done in 5 different modes.

This is a sample program of the graphics.

```
10 CLEAR 4  
20 MOVE 100,100  
30 DRAW 100,50  
40 END
```

## DESCRIPTION

Line 10: Puts computer into graphics mode 4

Line 20: Moves the cursor to the point 100 pixels along and 100 up.

Line 30: Draws a line to point 100,50

2

Line 40: Ends spectacular but once it has program, been expanded and the

Aswell as good of the best computers on the graphics the Atom market. For further is very good at information on the Atom calculating sums and or other Acorn merchandise equations. write to:

eg.

P.  $3+4$

If you type this in within a milli-second the Atom will reply 7. (P. is short for PRINT)

The Atom cannot do lower case letters it always prints in capital letters.

The unexpanded Atom isn't too

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Cambridge  
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**ASTEROIDS**

**SKETCH PAD**



# ATOMIC GRAPHICS

BY NIGEL RAINER

3

This program shows how versatile the graphics on the Acorn Atom is. It draws a

```
10 CLEAR 4
20 Move 100,100; Prow 100,50
30 Draw 150,50
40 Draw 150,100
30 Draw 100,100
40 Draw 256,192
50 Move 150,100; Prow 256,192
60 Move 150,50; Prow 256,192
70 A=100
80 Move 100,A; Prow 150,A
90 A=A-1
100 IF A=50 G.150
110 G.80
150 B=50
160 Move 256,192; Prow 150,B
170 B=B+1
180 IF B=100 G.200
```

CONT. OVERLEAF

4

190 G. 160  
200 E.

## ACORN ATOM GAMES

- 1 Munchyman (6k) £6.95
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# This Months COMP-TRONICS COMP.

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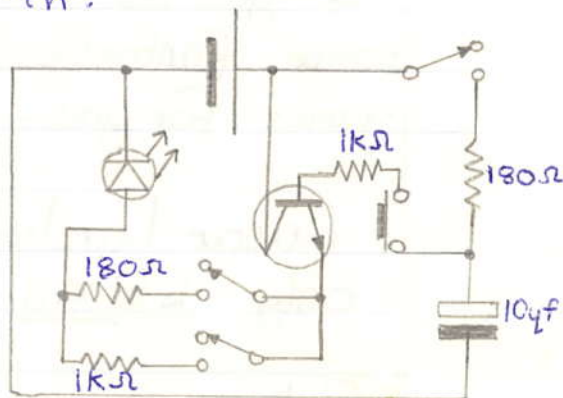
The winning person will win an exciting new electronics kit from Sharp electronics, and to win it all you have to do is answer two questions explain how a circuit works and (in not more than 20 words) give your reasons why COMP-TRONICS is the best mag. out. The first Ten

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### The QUESTIONS.

What does C-MOS stand for?

What does  $\mu$ ,  $\Omega$ , npn and pnp stand for and what are they used in?



6

COMP - Continued

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in a S.A.E.

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# The ZX81 Review. - by M. Wickens

## Sinclair's

new computer has made a breakthrough at the computer fair this week. The Comp-tronics stall at the fair, sold over 5,000 ZX81's in two days.

The ZX81 comprises of only four chips and a handful of components. This simple program illustrates the use of loops.

```
10 PRINT "*" "
```

```
20 GOTO 10
```

```
30 END.
```

It also illustrates the unique syntax-check which stops the program after it's filled the screen. One of our readers described it as simply "Magnificent". It is true, this is a remarkable computer for under £70.00.

Although it only runs on 1K, it out runs most of the more expensive computers. It has over 50 statements/commands and can be boosted to 16K (with the 16K plug-in memory pack).

Some people are set back by the touch-pad-



keyboard but after a while I got used to it and then it wasn't so bad. The one button command entry soon made the keyboard's

problem obsolete. The programming manual is full of information and some of the problems really do stretch the computer to its limits.

It tells you

what to do if the program does not work and a lot of other useful information. The manually operated graphic give brilliant pictures and are very easy to use.

The computer can also runs in machine code which gives very fast graphics in animated displays for games. Who needs an Atari when the ZX81 has so much software to offer. Tapes, listings, control ports, music. You name it, and someone can write a program about it.

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ZX81 and 80  
owners.

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or phone,  
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THANK

YOU

Are you keen on Electronics,

If you are come to the



1982



Electronics Fayre

Tickets cost: £1.00 for Adults  
50p for children

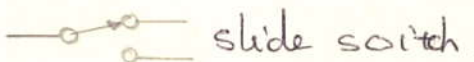
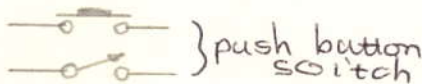
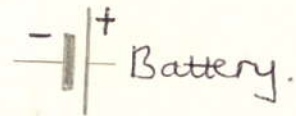
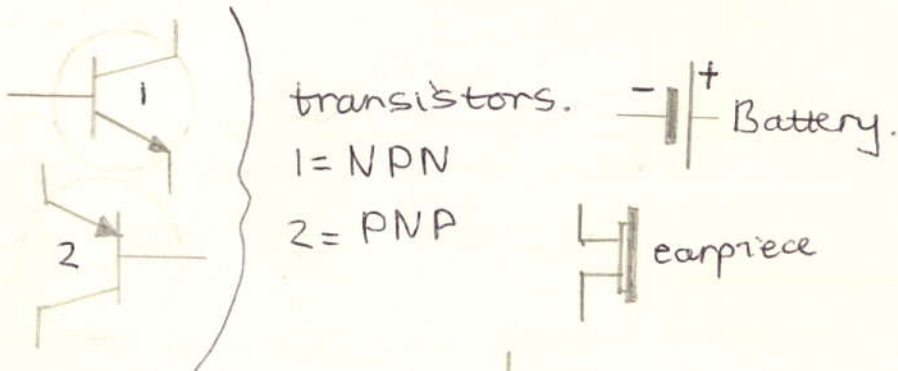
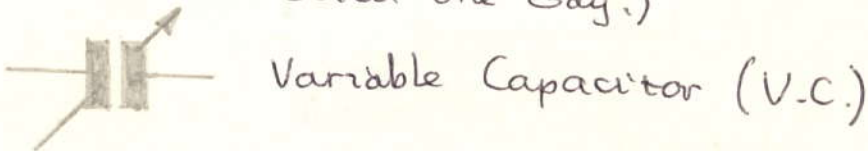
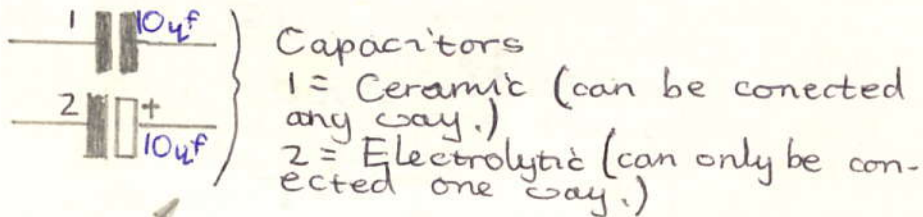
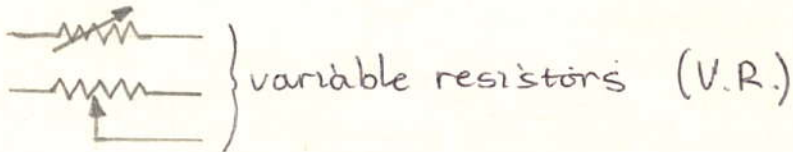
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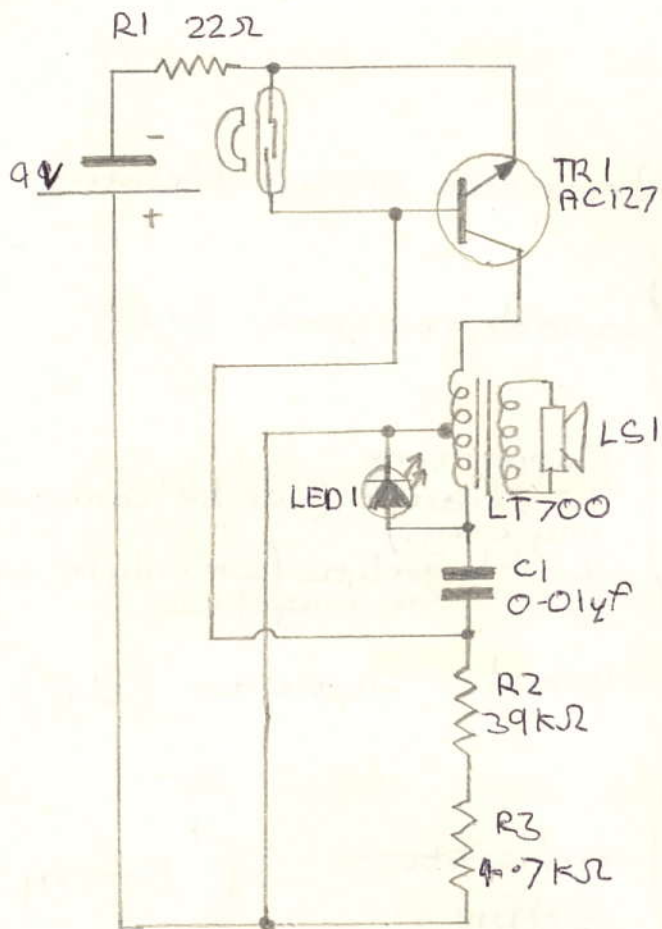
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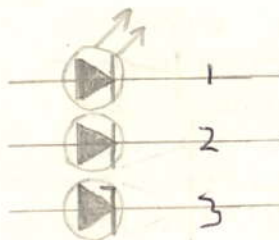
Circuits like the one opposite are interesting to figure out and to build. If you like circuits like this the write to the address below to obtain the 'BOOK OF CIRCUITS' written by A-Sharp. It costs £3.85 in hard back and 80p in paper back. The book is filled with circuits on every page, 140 pages. COMP-TRONICS are offering the HARD BACK copy for the price of the paper back. To obtain the offer fill in the form below and send it to

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Dunstable,  
Beds.,  
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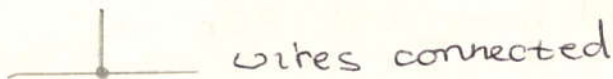
Please can I obtain — BOOK OF  
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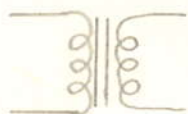
Diodes  
1 = LED (Light Emitting Diode)  
2 = Diode.  
3 = Zener Diode



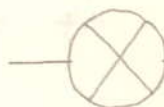
wires connected



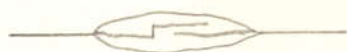
wires crossing (not connected.)



audio transformer.



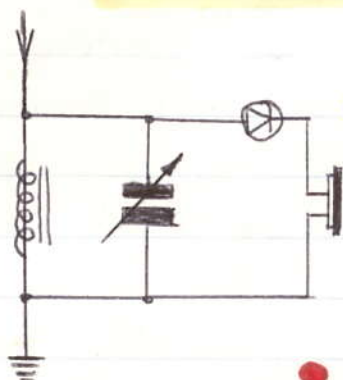
Bulb.



reed switch.

# PROJECT

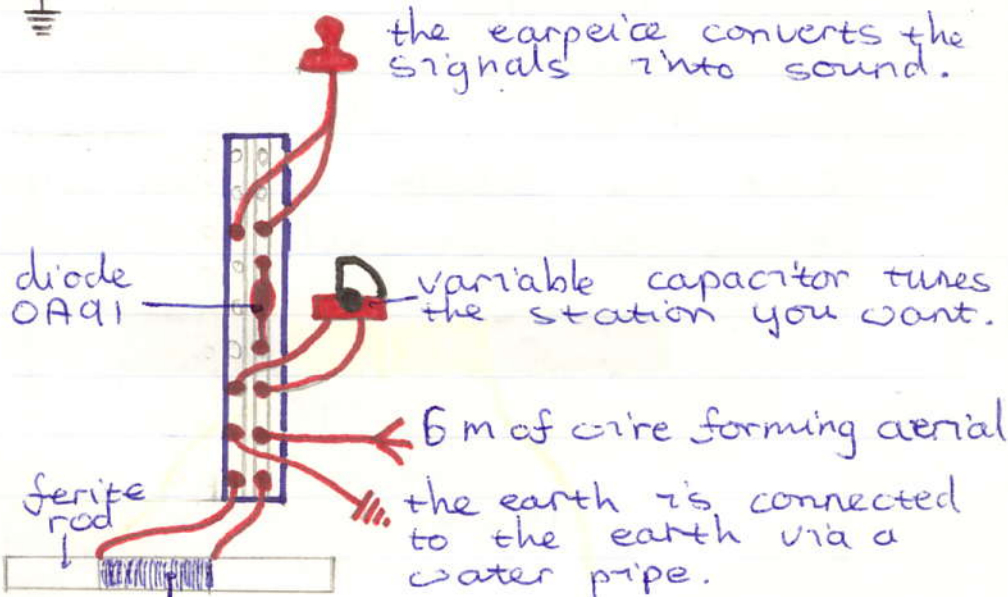
## Miniature Radio



circuit

This project is extremely simple. It is also a lot of fun to actually hear the....

the earpiece converts the signals into sound.



swg. 30  
wrapped 35  
times to form  
coil.

... result, a radio station coming through.

The vero-board is only two tracks wide and the whole finished

project is extremely small.

### Wrapping the coil

Cut 3 inches of  $\frac{1}{2}$ " ferrite rod and stick (with sellotape) one end of your S.W.G. 35. to it. leave about 10cm at this end. Wrap around ferrite rod 80 times as close together as possible. When you have done this wrap sellotape around the whole 80 turns and cut the S.W.G. leaving 10cm at this end as well.



### Components.

Ear piece  
V.C. 0-0005 $\mu$ f  
Diode OA91  
1m wire for  $\gamma$  $\perp$   
S.W.G. 35  
Rod 3"

### Approx. cost.

75p  
£2-25p  
30p  
40p  
£1-00  
£1-50

# A REVIEW

13

## On the 'Computer Programme'

The 'Computer Programme' is the BBC's latest home teaching production. The computer they use in this programme is the new Acorn BBC Micro. It is presented by Chris Serle from 'That's Life'. Just before the programme was filmed Chris told me that he had never used a computer in his life and that he was a complete beginner. The show teaches anybody

and everybody how computers work and how to programme them. The series is in ten parts covering everything. It's on Sundays at 10.10 am on BBC 1 or at 3.05 on Monday on BBC 2\*

\*The one on Monday is 5 episodes ahead of the one on Sunday.



# COMPUTER FAYRE

1982

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stands containing every kind of computers.  
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All the latest computer Software  
and Hardware

17<sup>th</sup> - 24<sup>th</sup> of April

ZX81

# Barmy Programs

15

```
10 PRINT "SHALL I TELL YOU A JOKE?"
20 INPUT A$
30 IF A$="GET LOST" THEN GOTO 120
40 PRINT "HOW MANY LEGS HAS A HORSE GOT?"
50 INPUT LEGS
60 IF LEGS = 6 THEN GOTO 100
70 PRINT "NO, 6, FORE LEGS IN THE FRONT, TWO BEHIND"
80 STOP.
100 PRINT "YES!.. "SHALL I TELL IT TO YOU AGAIN"
110 GOTO 20
120 PRINT "ALL RIGHT THEN, I WON'T!"
130 STOP
```

16

## Barmy Programs

Acorn Atom

5

DIM A(100)

10

P. \$12

20

P. "What is your name."

30

IN. \$A

40

P. ""

50

P. "How old are you ", \$A; P."

60

IN. B

70

P. \$12

80

P. "You were born in" be "

90

C = 1982 - B

100

P. C

110

P. ""

120

E.

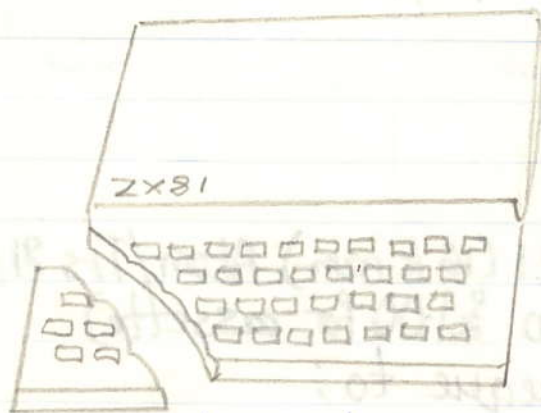
Do You Own a  
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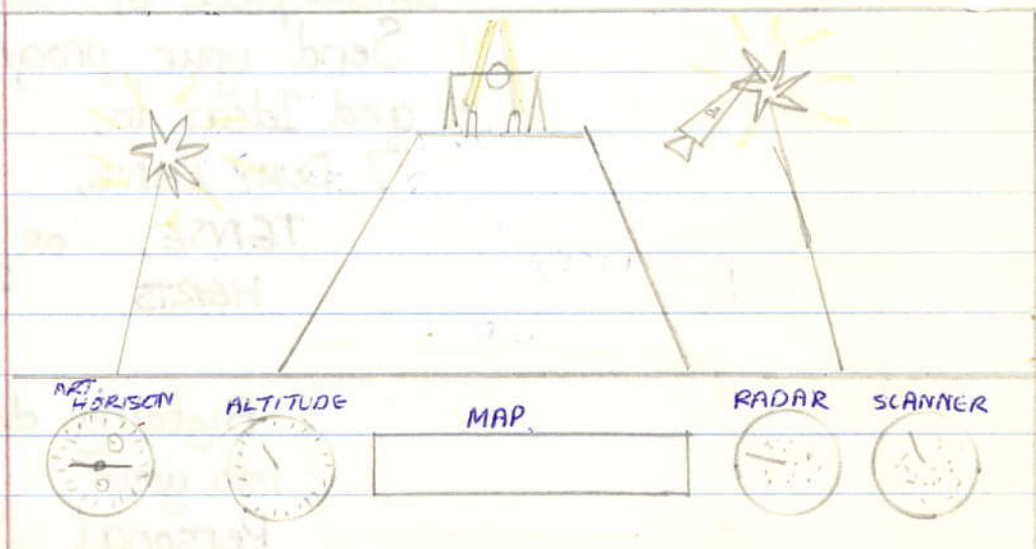
87, The Hillcroft, or phone;

Dunsanable; 60136B.

Bedfordshire



18



For ZX81 (16 k ram) Atom/Trs 81/ZX81  
 £5.95 (ADD £1.00 for cassette)

Send cheque to;  
 87, HILLMILL,  
 DUNSTAN,

BEPs  
 LUT IPP.

# GLOSSARY

19

(some useful words)

VDU = Video Display Unit

PCB = Printed Circuit Board

Hl. Res. = High Resolution Graphics

A.S.S. = Audio Speech Synthesizer

RAM = Random Access Memory

ROM = Read Only Memory

REM = Remark

DIM = Dimension

CRT = Computer Readout Terminal

h

## Computers on the Market

The best liked computers out.

Acorn Atom - £150 built

ZX81 - £69.95 built

Apple II - £549.

BBC Micro - £195-210

ZX80 - £99.95

## Electronic Jargon

LED = Light Emitting Diode.

LCD = Liquid Crystal Display.

PNP = Positive Negative Positive

NPN = Negative Positive Negative

NPN, PNP. (Transistor types)

SCR = Silicon Controlled Rectifier.

You have worked very hard  
on this and have included  
a wide range of material.  
For a serious magazine,  
you've managed to ~~put~~ /  
strike a good balance between  
illustration and writing.



# Acorn Atom

## Order Form

Please send me the following items:

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|             | Atom Kit 12+12K (max) @  | £220.00 | £255.00                |        |
|             | Atom Ass 12+12K (max) @  | £250.00 | £289.50                |        |
|             | 1K Ram Sets @            | £9.50   | £11.22                 |        |
|             | 4K Floating Point ROM @  | £20.00  | £23.30                 |        |
|             | Printer drive (6522 VIA) | £9.00   | £10.35                 |        |
|             | (LS 244 Buffers (pair))  | £2.50   | £3.17                  |        |
|             | Mains Power Supply       | £8.00   | £10.20                 |        |
| GRAND TOTAL |                          |         |                        |        |

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