

## APPLICATION

**PERFECT COPY** The most sophisticated robots can be created from simulation programs. We create a very simple program of our own to demonstrate the principles of robot simulation

801



## HARDWARE

**DRESSED TO QL** We review the Spectrum+, the new machine from Sinclair, which answers the keyboard criticisms of the old machine but leaves a few problems unsolved

806



## SOFTWARE

**PROBLEM SOLVER TK!** Solver for the more expensive micros is the most advanced spreadsheet we have looked at so far

804



**STARS ON SCREEN** Starfinder is a remarkable astronomy program for the BBC Micro and Electron

820

## COMPUTER SCIENCE

**ENDGAME** Our LOGO adventure game is now complete as the magical genie sees you safely to the end of the quest

808



## JARGON

**INDEX TO INFORMATION MANAGEMENT SYSTEM A** weekly glossary of computing terms

816



## PROGRAMMING PROJECTS

**ON LOCATION** We continue to develop an adventure game in BASIC

813



## MACHINE CODE

**LAST ORDERS** Our machine code debugger program is almost complete. In this instalment we look at an interrupt mechanism that transfers control from the main program to the debugger program

817



## WORKSHOP

**IN THE BEGINNING** We begin new projects for the Commodore 64 and BBC Micro in which we build a floor robot

810



**REFERENCE CARD** We publish the final part of the Z80 programmers' reference card

INSIDE  
BACK  
COVER

## Next Week

- We begin a survey of robots currently available on the market, starting with those priced under £200.
- The 6809 machine code series comes to an end as we publish the final part of the debugger project.
- The final touch: we examine the Touchmaster graphics tablet, which can be interfaced to a wide range of home micros.



# QUIZ

- 1) Apart from the keyboard, what other new feature has been added to the Spectrum+, and where is it?
- 2) What kind of motor are we using to build the robot and why is this type more suitable for the purpose?
- 3) What kind of addressing would we expect to use to access an array in the computer's memory?
- 4) What is the difference between an equation processor and a spreadsheet?

### Answers To Last Week's Quiz

- 1) If the software written for one model of computer in a manufacturer's range will work on all succeeding models in the range, it is said to be 'upward compatible'.
- 2) 'Daisy chaining' means sharing a data bus or power supply among several devices by connecting the output of one device to the input of the next, and so on around the chain.
- 3) In Lotus 1-2-3 commonly-used sequences of keystrokes can be saved and named as a sub-program; this is called a 'keyboard macro'.
- 4) INVENTORY is a command used in most adventure games to display the list of your possessions.

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