

# **Games and other programs for the Acorn ELECTRON**



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# INTRODUCTION

This book contains a collection of 20 programs for the Acorn Electron, selected by Lee Calcraft. The range of titles is wide, spanning action games such as 'Robot Attack', screen displays such as '3-D Rotator', and utilities like 'Sound Wizard'.

As you will see, the length of the listings varies considerably too. Some are less than one page in length, while others are six or more pages long. However compactly it is written, a sophisticated game will involve a certain amount of code, and since the object of this book is to provide a collection of good programs, we have included some longer listings.

We know that the games are good to play — we have spent a good deal of time playing them; and they have been popular among readers of our magazines. Many of the programs make good use of the Electron's graphics capabilities, and we have tried to convey some idea of screen representation through the accompanying photographs. But a black and

white screen shot will rarely do full justice, even with the highest quality printing techniques.

The programs have been grouped under one of four headings:

- Action Games
- Thought Games
- Visual Displays
- Utilities

### **Action Games**

Action Games will have you glued to the screen. Each in its own way demands a degree of strategy, combined always with good key control and fast reactions. 'Munch-Man' is a new implementation of the arcade game 'PacMan'. The graphics are good, and it is fun to play. If you want a relatively short program in this category, I would recommend 'Mars Lander'. This plays well, and is challenging even at the lower degrees of difficulty. 'Hedgehog' also deserves a mention. Here you are brought down to earth with a vengeance, as you try to guide a hapless hedgehog across a four-lane dual carriageway and a busy railway track to snatch acorns for supper. In the end, perhaps my favourite is 'RobotAttack' which requires a nice balance of strategy and speed of reaction.

### **Thought Games**

For the restful mood we have included 5 games which are played at a less frenetic pace. The range of games included under this title is again extensive. 'Higher/Lower' invites you to bet on the turn of a card, while in 'Five-Dice' strategy is required to build up combinations of dice sets. In sharp contrast, 'Return of the Diamond' is a small adventure game in which you enter into a dialogue with the computer in order to solve the riddles posed in seeking to return the Great Diamond to Diamond Castle. 'Anagrams' provides an opportunity to test your word recognition; and, lastly, there is the game of 'Life' which has emerged with a whole cult following of its own.

### **Visual Displays**

These are mostly short programs designed to create visually interesting displays, and demonstrate the excellent graphics capability of the Electron. One of the most colourful is 'UnionJack' though you may

find ' SquareDance' even more eye-catching. On a different theme, ' 3-DRotator' will accept any line drawing and allow you to rotate it about three axes.

### Utility Programs

This term may need some explanation. Each of the programs in this group is a utility designed to aid the Electron programmer. ' Sound Wizard' , the first, provides a repertoire of envelopes which can be used to test sound effects for subsequent incorporation into your programs. ' BadProgram Rescue' is a routine which magically heals programs which have gone ' bad in the computer. It may be used in conjunction with ' BadProgram Lister' . The last two programs of the book — ' DoubleHeight Text' and ' 3-DLettering' can be used within your own programs to embellish text displays.

### Keying in the Programs

Each of the programs has been listed directly from the computer, and should be bug-free. If one of the programs fails to work when you have keyed it in, it is probably due to a typing error. Here are some helpful hints:

If you have not typed any programs before, choose one of the shorter ones. ' SquareDance' might be a good one to start with; it is interesting visually, and quite straightforward — unlike ' Screenplay' or the very long program, ' Life' both of which contain elements of machine code.

All of the programs in this book have been renumbered in tens so that you can use the AUTO facility to enter them. Type AUTO <return>. The expression <return> means press the key marked RETURN. A number ten will appear on the screen. Now type in the first line of the program, and press RETURN. A number twenty will then appear — and so on. When you have finished entering the program press the Escape key to stop the AUTO line numbering facility. Note, however, that one or two of the utility programs have a break in numbering to emphasise the central program procedure. Be sure to take account of this.

All programs should be typed in exactly as they appear. Be particularly careful not to leave out any spaces on program lines. Some of them are vital.

Another pitfall for the unwary is the visual similarity between certain letters and numbers. Take care to distinguish between a zero (always crossed in our listings) and a capital ' oh(0). The number 1, capital I and lower case L are also very similar. To avoid confusion we have not used capital O or lower case L as variable names. You must also watch out for commas and full stops, and colons and semicolons. They may look similar to us at a quick glance, but do not to the computer. If you type a full stop in place of a comma your program will not run.

When you have typed in a complete program, save it to tape before running it. This may avoid hours of retyping if a disaster occurs. In practice too, it is wise to keep back-up tapes and make copies at various stages during the typing of the longer programs.

If a program aborts, you should receive an error message telling you what has occurred, and in many cases, the line number at which it occurred. If nothing is printed, try deleting any lines in the program which say ON ERROR, and re-run it. You will now receive an error message unless it is a machine code section which is at fault.

The error message should lead you directly to the typing mistake. But it will not always do so. If you think that the line given as faulty is in fact correct, then carefully check any data statements (i.e. lines preceded by the word DATA). A missed full stop, comma or a missing item can prove fatal.

Some program bugs do not give error messages because the program does not actually abort. Then you will need to check your version of the whole program very carefully against the printed listing.

**Lee Calcraft**