

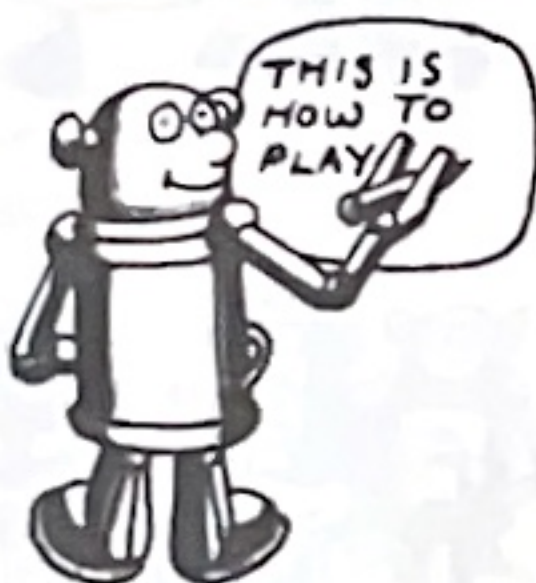
Adding to the programs

Here are some ideas for additions you can make to the programs in this book or to your own programs. In most cases you won't be able to add these to a ZX81 with only 1K as the games themselves fill almost all its memory space, but you should find there is plenty of room on the other computers.

Remember you will either have to restrict your additions to the spare line numbers in a program or renumber the program. If you decide to renumber, take care you change all the GOTO and GOSUB lines too.

Getting the computer to tell you how to play

You can add a section to any program to make the computer print instructions telling you what to do. The easiest way to do this is to add some lines, such as those below, at the beginning of the program and then put a sub-routine at the end.



```
10 PRINT "TITLE OF GAME"
11 PRINT "DO YOU WANT TO"
12 PRINT "KNOW HOW TO PLAY?"
13 INPUT I$
14 IF I$(1)="Y" THEN GOSUB 1000
15 IF LEFT$(I$,1)="Y" THEN GOSUB 1000
main program goes here
```

```
1000 PRINT "WHAT YOU HAVE TO"
1010 PRINT "DO IS....."
1999 RETURN
```

You can add as many print statements as you like for the instructions, just remember to put a number and the word PRINT at the beginning of each one. Restrict the length of the part inside the quotation marks to the number of characters your computer can print on one line. Don't forget to put a RETURN line at the end or the program won't work.

Making the computer stop and wait for you



If your instructions are very long, you may want to insert this sub-routine which stops the program running at a particular point until you press a key. This way you can stop the instructions scrolling off the top of the screen before you have read them. Put a GOSUB line at the place you want the program to stop and then put this sub-routine at the end.

```
1000 PRINT "PRESS A KEY TO CONTINUE ";
S ZX1010 IF INKEY$="" THEN GOTO 1010
★1010 I$=GET$
●1010 GET I$
▲1010 GET I$ : IF I$="" THEN GOTO 1010
1020 PRINT
1030 RETURN
```

Making the computer "talk" to you



You can make the computer ask you questions and react to your answers. For instance, here is an addition which will make the computer refuse to play with you unless your name begins with J.

```
1 PRINT "WHAT IS YOUR NAME?"
2 INPUT I$
3 IF I$(1)<>"J" THEN GOTO 1000
3 IF LEFT$(I$,1)<>"J" THEN GOTO 1000
4 PRINT "OK-YOU CAN PLAY."
5 PRINT "ARE YOU READY?"
6 INPUT J$
S ZX7 IF J$(1)<>"Y" THEN GOTO 5
★▲●7 IF LEFT$(J$,1)<>"Y" THEN GOTO 5
```

main program here

```
1000 PRINT "SORRY THIS GAME IS"
1010 PRINT "ONLY FOR PEOPLE"
1020 PRINT "WHOSE NAMES BEGIN"
1030 PRINT "WITH J"
```

Here is another one where the computer dares you to be brave enough to play.

```
10 PRINT "VERY SCAREY GAME"
12 PRINT "ARE YOU BRAVE ENOUGH"
14 PRINT "TO TACKLE THE GREEN"
15 PRINT "HAIRY MONSTER?"
16 INPUT I$
S ZX17 IF I$(1)="Y" THEN GOTO 20
★▲●17 IF LEFT$(I$,1)="Y" THEN GOTO 20
18 PRINT "COWARD"
19 STOP
```

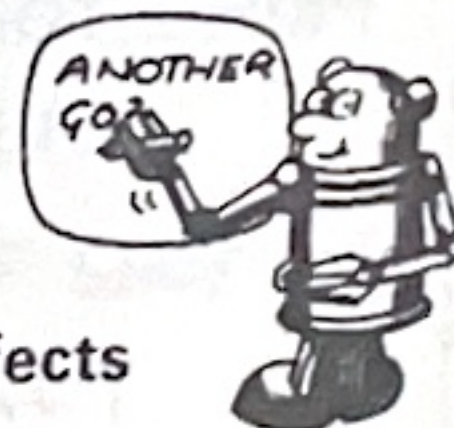
You could combine this with the instruction sub-routine by taking lines 11 to 17 from the instructions section on this page and putting them at lines 20 to 26 of this program. You can then start the main program at line 30 and add the instruction sub-routine at the end.

Would you like another go?

Instead of typing RUN each time you play a game, you can make the computer ask you if you'd like another go. Put these lines at the end of the program, just before the last STOP statement.

```
1000 PRINT "DO YOU WANT ANOTHER GO?"
1010 INPUT I$
S ZX1020 IF I$(1)="Y" THEN RUN
★▲●1020 IF LEFT$(I$,1)="Y" THEN RUN
1030 PRINT "OK THEN - BYE"
1040 STOP
```

Change line numbers according to your program.



Adding sound effects

The BBC, VIC 20, ZX Spectrum and some Apples are able to produce sounds and you can add lines to your programs to make them do so at appropriate places. You could add an explosion for instance, or a little tune which plays if you win. All the computers need different instructions to make sounds though, so you will have to look at your manual. In some

cases you can add a single line to your program at the place you want the sound. In others, you need several lines and it is best to put these in as a sub-routine.

As an example, here is the sound of a shot for the BBC. You can experiment with where to put it in the program, but you must give it a line number to make it work:

```
SOUND 0, 15, 5, 10
```

At the back of the VIC manual you will find some useful sub-routines for sounds such as "laser beam", "explosion" and "red alert". Put a GOSUB line where you want the sound to appear, number the sub-routine and add a RETURN at the end of it.



Special note for BBC and Spectrum users

If you have a BBC or a ZX Spectrum you may find that some of the games in this book run too fast for you. You will find a box next to these games containing instructions for changing the speed. Remember, to slow the game up you always need to use a higher number. Later models of the BBC may run up to twice as fast as the earlier models, and this could make the games appear impossible on the first run. Be prepared to make big changes to the speed number to correct this.