Fidelity Electronics
Chess Challenger

TV Games

Angus Robertson and **Mark Stevens**
review some electronic board games

Television electronic board games have been on the market now for about four years, and there can be few people who have not played one of these tennis or football games during that time. 'TV games' tends to be used as the generic term for electronics-applied games or toys—but a number of purely electronic games not requiring TV screen for display have been developed and marketed during the past two years. The immediately obvious advantage is that the household TV can be watched normally in a family while the game provides alternative entertainment. Also most of these electronic games can be played against a computer rather than a human opponent, though tournaments are still perfectly feasible.

There are two classes of electronic games, primarily separated by price: below £30 which are simple (often handheld) types such as car racing, soccer, space wars, simon, battleships, mastermind, horoscopes, and such games; and games priced from £80 to £200 (which are covered here) being board games including chess, backgammon, and checkers. The former games will be detailed in a future article.

For this article our office chess expert Mark Stevens has presented some personal impressions of the three computer chess games submitted for review, while I have looked at backgammon and checkers games. But first a little background.

Without exception, all the games in this article use microcomputer technology with an off-the-shelf microprocessor and semi-conductor memory programmed to play the particular game. Communication between computer and player is provided by a digital LED display that reveals where the computer wishes to place pieces on the board. The player selects his or her moves on a simple keypad which are first displayed on the LEDs.

Applied Concepts
Boris

Once confirmed as correct, ENTER is selected which indicates the computer's turn. The response time of the computer depends upon the player 'skill level' selected. This is usually defined by a simple number, the higher numbers generally representing the highest skill levels. One unit actually shows the time that the computer has to consider its move—but this technique is in fact used by all models, where the higher numbers allow a longer time period for the microprocessor to scan the board for all its possible moves, the possible counter moves, its potential counter-counter moves, etc. That may sound like impossible competition—but because these devices are only small microcomputers rather than an IBM *370* or something gigantic, they require considerable time to scan the millions of potential moves from which they must select the best move. So onto the three chess games themselves:

Videomaster
Chess Champion

Chess Games

When was the last opportunity you had to play a serious game of chess? I am sure that most of us, me included, went into regular chess battles during school breaks or after college lectures when there were plenty of willing opponents to play in the refectory or local pub. The problem that I face now (ten years later) is finding a chess partner who wants to give up his or her time to play regularly. So the opportunity to compare three computer chess games was eagerly taken up. The games in question were Applied Concepts *Boris,* Fidelity Electronics *Chess Challenger 10,* and Videomaster *Chess Champion,* with prices ranging from £89.50 to £200.

I shall look at each game individually, but have formed some general impressions after playing over a few weeks which may be worth mentioning. I can only remark on early playing reactions which might be unfair to some games—because the longer you play with a computer game, the more you discover an almost human personality, with idiosyncrasies and temperaments!

My first experiments proved one very important point — to write down every move you and the game computer make. This is the only way of checking back through your game if the computer tells you that an illegal move has been made, where nine times out of 10 it is proved to be human error.

The presentation of the chess board seems consistent between games and programming moves is straight forward. In fig 1 the player starts first by moving his bishop's pawn forward two spaces (F2-F4), and after pressing the play button the chess game replies by moving his knight forward (G8-F6), and so on.

Most of the games have additional facilities such as levels of play or time adjustments between moves; again these points will be looked at individually. An important aspect is that they are all powered by mains transformers, so it is important to

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check that they comply with the necessary safety regulations. Can you imagine after playing all day, the tension and delight of your final winning move into check mate being met with overheating, sparks flying and plastic melting into your lap? (Maybe computers are bad losers).

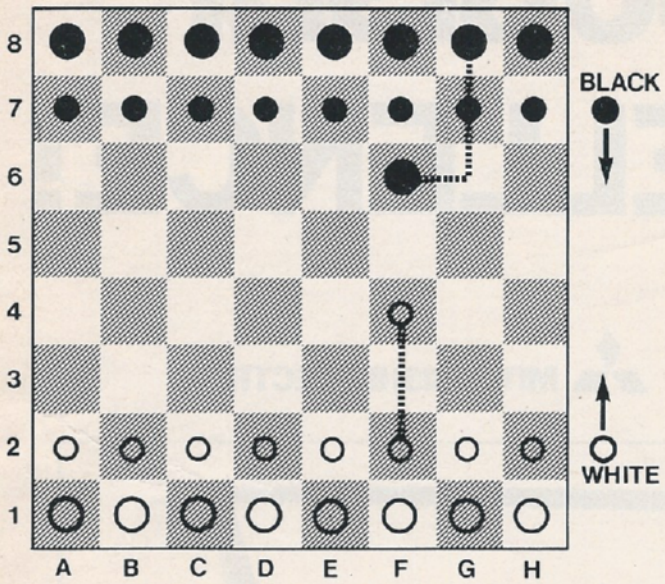

FIG.1

Applied Concepts Boris (£199)

Although having an unconventional name, this chess game comes in a plain solid walnut box, measuring 254 x 165 x 82mm. Inside the box are two compartments — on the left is a keypad neatly labelled and above this a digital display window sloped towards the player for easy reading. The right compartment is for storing the chess pieces and mains unit supplied with the game. Also included is a stiff card chess board and a very informative instruction booklet that will be your bible for the first few games.

The construction of the *Boris* is thoughtful and compact. The makers claim that you should have 'many hours of enjoyable chess from dependable circuitry'. So after that possibly biased recommendation, on with the game.

Boris is unusual in that the LED display displays words as well as numbers, often making clever or sarcastic comments as the game progresses. After setting the reset switch, *Boris* informs you that he awaits your move. It is important at this stage to select the level of play depending on your experience, but I suggest for the first game that you don't set any time limit — that way *Boris* will not have the time to compute all his possible moves, so there will be a better chance for you to check-mate him. The manufacturers provide time limits from 20 seconds to 1 hour, but if you have the grand master's touch, it could be longer.

As you would expect from a chess game at this price *En Passant* and Castling manoeuvres are possible, and there are several additional features to the basic game:

Recalling the board: *Boris* memorises and adjusts the layout of the game as the moves are made, so if you want to check the computer against your own board, this facility is very useful.

Changing sides: This can act as a teaching aid or just for interest to see what *Boris* would do in your place.

Modifying the board/playing from a position: I regard this as being the most useful of all the features if you fancy a challenge against the typical chess problems you see daily in the newspapers — 'White to move, check mate in three moves' or what have you.

Other general features include:

Correcting blunders: *Boris* will allow you to retake an illegal move.

Asking Boris again: *Boris* can vary his move, each time maintaining a high quality of play.

Watching Boris compute: You can see the device think out possible moves. Each chess piece has a symbol which is displayed as *Boris* computes.

I mentioned in the introduction about the chess games having human qualities — this must relate to *Boris* more than the other games. It plays like a champion (if you want it to) and through the game he passes comments about both partners playing abilities. Not one to be afraid of informing you sarcastically that you have made a stupid move, *Boris* will surrender the Queen like a gentleman — after congratulating you. These remarks appear in a random fashion, so they may offer a few amusing surprises. I enjoyed playing this game, and learnt a lot in the process. Being uncomplicated to programme, the player can concentrate on the game and almost forget that *Boris* is a computer. The construction is solid and well finished, but does get rather warm after a long session. The mains pins were American style on our sample, so you need to purchase an adaptor for UK use. Regrettably there were a number of times when, after playing for about 20 minutes *Boris* started to behave totally illogically. After checking back through the memory, I discovered the device had invented pieces already taken, and once *Boris* inexplicably changed sides.

Finally, a small grumble that could have nothing to do with our sample's individual characteristics — the catch on the walnut box. It doesn't seem strong enough to withstand much wear and tear, and its replacement with a more substantial lock would be an improvement.

Videomaster Chess Champion (£89.50)

At the other end of the price scale is the Videomaster *Chess Champion*. Compared with *Boris* this game looks almost a toy — but it isn't. The manufacturers claim that their game is a newly-developed, scientifically based electronic microcomputer. It is contained in a two tone plastic case measuring 215 x 120mm deep. The selector buttons are positioned to the right and the digital display, power switch and level of play control are to the left. The red display screen is angled towards the player. The game comes complete with mains adaptor but is supplied without a chess board and pieces. But then most people already have such a board.

The instruction booklet is concise and easy to follow, proclaiming in bold letters 'The Chess Champion never makes a mistake'. Even if the player programmes an illegal or impossible move, *Chess Champion* will continue to make the best out of its new situation.

There are six levels of play to choose from, starting with an instant reply (level one) to a two day reply (level six). It is recommended by the manufacturers to turn the unit off between moves when playing a long game — to continue the game the player resets the board by selecting MODE B MODE A starts the basic game.

Additional features include a test programme which demonstrates (at one level) check mate in five moves. The game will flash up 'lose' if you beat it. One limitation of the game is that it cannot display a check by the player, whereas a check by the computer will be joyously announced with a flashing display.

Castling, En Passant and **Promoting a Pawn**: These special features are useful to complement the basic moves. Others include:

Correcting the move during the game, Changing the level of play and **Finding the positions of pieces.**

My reactions to the *Chess Challenger* are favourable when considering the cost. This game would be useful to the beginner. The press button selectors are of a substantial size and well labelled, so it would be difficult to make a programming mistake. Most of the extra playing requirements are available, and the game offers a selection of playing levels to suit the standard of the player. However the device did cheat many times by ignoring check-mate and inventing pieces that had been taken. These breaks in logic were spasmodic and so difficult to quantify — however, it's something that must be watched out for.

Fidelity Electronics Chess Challenger 10 (£200)

Chess Challenger 10, the star of stage, screen, and *Blake's 7* is the most expensive of all the chess games in this review. It has a touch press control panel and a self-contained magnetic chess board incorporated into a wooden surround measuring approximately 336 x 216mm finished in an attractive brushed chrome and brown. Chess pieces and mains unit are included in the game, the whole lot neatly housed in a purpose built light-weight briefcase.

Before choosing your level of play between one and ten, a short 'beep' tone sounds after the keys have been pressed. A double beep will sound after the computer has made its move. When the computer bases its game on 'patterned book' opening, it will sound two beeps and continue to do so until the game changes course or an illegal move is made. If the beep annoys you it can be switched off. The player is given the choice of playing white or black — white always starts first.

As well as Castling and *En Passant*, the *Chess Challenger* includes amongst its varied features:

Position Verification: This informs you of the exact position of any piece at any time during the game. The coding for this is straight forward, for example, 2 pawn, 4 knight, 6 bishop, 8 rook, A Queen, and C King.

Random Play: *Chess Challenger* offers a choice of moves that suit the mood of the game, and each move is designed to protect its pieces. *Chess Challenger* — unlike *Boris* and *Chess Master* — can be left on for days and even weeks if a postal game is being played. This is a great advantage if you are put off by the lengthy process of resetting a board.

Override and **Problem Mode:** As its name implies, *Override* makes it possible to move your pieces into a better position without opposition and is a short cut to a possible early win. Although the computer registers all the moves made, it can come back into the game as soon as you wish it to. *Problem Mode* allows you to set up problems, invent pieces and as tactfully implied in the handbook, pull your Queen out of check-mate without losing pride. I regard this game as the best of the three, although it is expensive on pieces. Various mistakes that occurred were down to programming errors. At level 2 it was sheer poetry to see the computer work — the biggest error was that I dared to challenge it. Because of the magnetic base a game can be made to commence even on your lap.

Other board games

Tryom Gammon Master II (£139)

Backgammon is available only as the Tryom Inc *Gammon Master II* game at present, although one or two more games from other manufacturers are expected later in the year.

Backgammon is an ancient game that involves a number of pieces being moved around the outside of a board landing on 'blots' — when only a single piece is on a blot, it may be taken by the opponent, but when there are two or more, it is safe. The objective is to move all your pieces around the board (each player in opposite directions), so that all of your opponent's pieces are eventually 'bourne' off the board.

The game is played with a pair of electronic die and caused considerable concern during review because they appeared to be far from impartial: It was even suggested, in jest no doubt by three of those who played the game, that the die might even be 'bent', supporting the computer against the player — but the importer assures me that this is impossible and the random dice element is totally separate from the microprocessor. Possibly it is just sour grapes since none of us has yet beaten *Gammon Master*, and it always seemed to throw very convenient numbers allowing its blots to be covered against attack. But nevertheless, it is a very worthy opponent.

Actual technique of play is rather complicated because of the complex rules of backgammon. But basically, play goes as follows: The board has its blots numbered one to 12, right to left — but when entering these digits top or bottom row must also be indicated. This sometimes becomes confusing, at which point the display will immediately retort BAD and the moves are entered again. Separate buttons are used to bear pieces off the board at the end of the game and to bear them back after being knocked off. *Gammon Master II* also includes a 'doubling cube' feature which is used to increase the 'bet' placed on each game, when one opponent feels the game is favouring him, her or it (in the computer's case) — here the bet may be offered to the other party. This doubling feature was obviously an after-thought because the plastic case has a stipple finish, and the doubler cube labels are poorly silk screened onto this very uneven surface. Finish of the *Gammon Master II* is not really up to the quality of the chess games, being simply housed in a plastic case with plastic pieces. However Tryom Inc has also introduced the *Omar* range of backgammon games which comprise a handheld calculator type unit with identical electronics to *Gammon Master II* but supplied with a separate conventional

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Trycon Inc
Gammon Master II

back gammon board. *Omar I* has a simple board and costs about £100, *Omar II* has two levels of play and a tournament sized board at £180, while *Omar III* has an even more 'de luxe' board at £200.

While chess is strictly a game of skill, backgammon contains an element of luck (although we were uncertain about the die!). But Tryom has even considered this, since die scores may be entered directly into *Gammon Master II*, either to give oneself a better score, give the computer a worse score (both sneaky and not sporting), or better still to use manual, conventional dice which are usually thrown on the floor. Overall, *Gammon Master II* is a good game and provided considerable entertainment.

Fidelity Electronics Checker Challenger 4 (£99.95)

In appearance the Fidelity Electronics *Checker Challenger 4* is almost identical to the *Chess Challenger* series. It is only when one looks closely that the differences are noticed. Checkers is another name for the British game of draughts, but before you say 'how boring', let me again say that I haven't yet beaten *Checker Challenger* either. . .but then perhaps I'm not that good at such games. This game uses wooden counters that are moved by the player, the minor complication being that when several counters are jumped by the computer, one has to work out where the computer has gone. You can select an offensive or defensive game (both managed to beat me), and once again the computer will not allow illegal moves to be made — so you can't cheat. Fidelity has also a two level version — the *Checker Challenger 2* — which costs just £59.95

Other Chess games

There will be a few more chess games on the market later this year including: A new *Boris* game that operates from batteries, a *Voice Chess Challenger* from Fidelity that will actually 'speak' each move (and is expected to cost about £250), and a *Bridge Challenger*.

Fidelity currently has a seven level version of *Chess Challenger* for about £95 (which should be excellent value for money) with programming based on that developed for the previous three models in the series over a two year period.

Tolinka (£145)

Another chess game that has been used on several television programmes in recent months is *Tolinka*. This is not strictly a chess computer — it simply allows a game to be displayed on a TV instead of on a board. The game may be recorded either on the modified audio cassette recorder supplied, about three seconds of tape being required for each complete game, or on a video cassette recorder for separate playback. Often used simply as a display device for chess on television.

Finally, most of the programmable television games described in previous issues of *Television & Home Video* offer board games and these include: Fairchild/Grandstand with blackjack, backgammon and checkers; Atari with blackjack and chess (not yet seen); Interton with blackjack, backgammon (between two players) and chess (not seen); and Optim *Majestic* with blackjack and checkers. ■

Importers and agents

Tryom Gammonmaster II
Actiongable Ltd, 15 Oakley Gardens, London SW3.
Applied Concepts Boris
Optimisation Ltd, 45 South Street, Bishop's Stortford, Herts.
Fidelity Electronics Chess and Checker Challengers
Spectrum Marketing, 12 The Shrubberies, George Lane, London E18.
Videomaster Chess Champion
Waddingtons Videomaster Ltd, 36-44 Tabernacle Street, London EC2A 4DT.
Tolinka
PO Box 5, Dorchester, Dorset DT2 74B.