RIFLE RANGE

The Stack Light Rifle (SLR) is designed to bring added realism to 'shoot-em-up' games on home computers. Combining the appearance of a gun with a camera-style optical system, the SLR is hardly a precision instrument, but its use of light pen technology allows the user to dispense with joystick or keyboard control.

The main component of the Stack Light Rifle System is the electronic target pistol that is connected to the computer by a generous length of lead. At the computer end, depending on the version, there is a connector for the appropriate socket or edge connector. On the ZX Spectrum version the connector contains two chips and a couple of simple components to interface the main electronics inside the gun to the computer. To make the pistol more accurate—and to turn it into a rifle— it is supplied with a shoulder stock that clips and secures to the rear of the pistol, a barrel and a make-believe telescopic sight.

The electronics inside the pistol consist of a light detector or photo-diode and a small amplifier and buffer. Light coming down the barrel is focused by a small plastic lens onto the photo-diode, and the device is sensitive enough to detect the changes in intensity of the picture. Once boosted by the amplifier, the signal is clipped to provide a digital pulse rather than an analogue waveform and is then fed to the computer via the switch. The screen position that is being scanned at that moment is the position the rifle is pointing at. As the computer receives the pulse from the Light Rifle it compares the value of its scan registers with the screen position of the target and, if a match is found, the played has scored a direct hit.

Variants of the Light Rifle are currently available for the ZX Spectrum, Commodore Vic-20 and Commodore 64 and all perform the same function. Stack provides three games on cassette with the Light Rifle but that's about the limit of the support provided. Although various independent software houses produce games that would appear to be eminently suited to this type of user control, very few have actually produced or converted programs to work with it; Micromania is an exception. Possibly even more damaging to potential sales of the Light Rifle is the fact that Stack doesn't provide any driver routines to allow users to write their own programs. This omission, together with the lack of any technical details on how it works, means that the Light Rifle is not a good alternative to a joystick.

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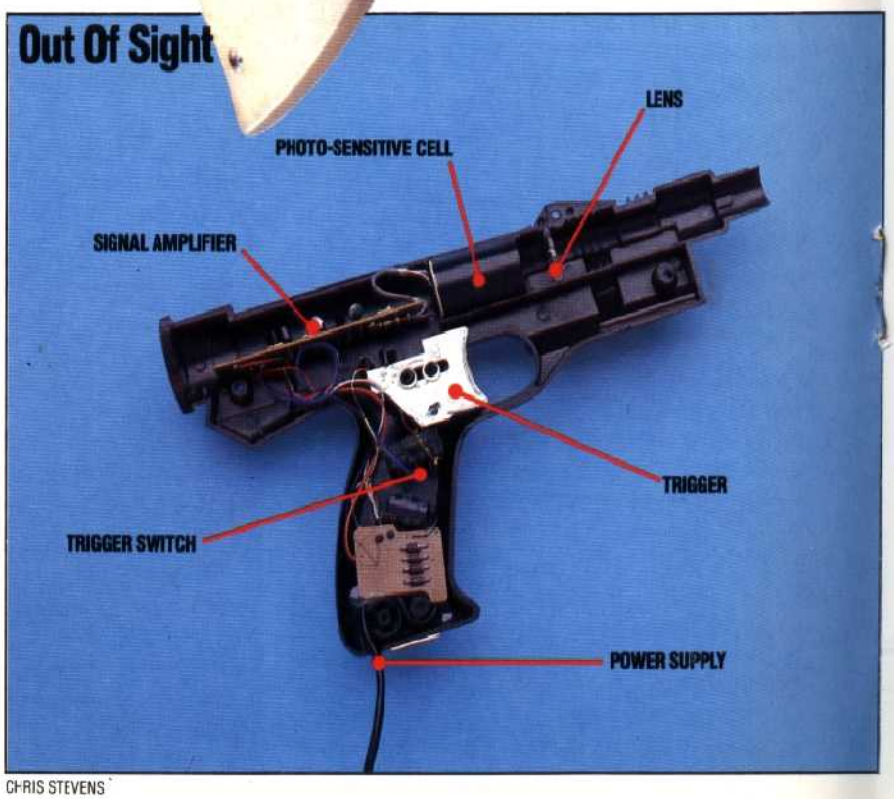

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