

= OXO =

OXO is a video game created by Alexander S. Douglas in 1952 for the Electronic Delay Storage Automatic Calculator ( EDSAC ) computer , which simulates a game of noughts and crosses , also called tic @-@ tac @-@ toe . It was one of the first games developed in the early history of video games . Douglas programmed the game as part of a thesis on human @-@ computer interaction for the University of Cambridge . The EDSAC was one of the first stored @-@ program computers , with memory that could be read from or written to , and had three small cathode ray tube screens to display the state of the memory ; Douglas re @-@ purposed one screen to demonstrate portraying other information to the user , such as the state of a noughts and crosses game . After the game served its purpose , it was discarded . OXO , along with a draughts game by Christopher Strachey completed around the same time , is one of the earliest known games to display visuals on an electronic screen . Under some definitions it thus may qualify as the first video game , though other definitions exclude it due to its lack of moving or real @-@ time updating graphics .

= = History = =

The Electronic Delay Storage Automatic Calculator ( EDSAC ) mainframe computer was built in the University of Cambridge 's Mathematical Laboratory between 1946 and 6 May 1949 , when it ran its first program , and remained in use until 11 July 1958 . The EDSAC was one of the first stored @-@ program computers , with memory that could be read from or written to , and filled an entire room ; it included three 35 × 16 dot matrix cathode ray tubes ( CRTs ) to graphically display the state of the computer 's memory . As a part of a thesis on human @-@ computer interaction , Alexander S. Douglas , a doctoral candidate in mathematics at the university , used one of these screens to portray other information to the user ; he chose to do so via displaying the current state of a game .

Douglas used the EDSAC to simulate a game of noughts and crosses , also called tic @-@ tac @-@ toe , and display the state of the game on the screen . Like other early video games , after serving Douglas 's purpose , the game was discarded . Douglas did not give the game a name beyond " noughts and crosses " ; the name OXO first appeared as the name of the simulation file created by computer historian Martin Campbell @-@ Kelly while creating a simulation of the EDSAC several decades later . Around the same time that OXO was completed , Christopher Strachey expanded a draughts program he had originally written in 1951 and ported it to the Ferranti Mark 1 , which showed the state of the game on a CRT display . OXO and Strachey 's draughts program are the earliest known games to display visuals on an electronic screen , though it is unclear which of the two games was displayed first . As it ran on a computing device and used a graphical display , OXO is considered under some definitions to be a contender for the first video game , though under others it does not due to its lack of moving graphics or graphics which update continuously .

= = Interaction = =

Each game was played by one user against an artificially intelligent opponent , which could play a " perfect " game . The player entered their input using a rotary telephone controller , selecting which of the nine squares on the board they wished to move next . Their move would appear on the screen , and then the computer 's move would follow ; the game display only updated when the game state changed . OXO was not available to the general public and could only be played in the University of Cambridge 's Mathematical Laboratory by special permission , as the EDSAC could not be moved , and both the computer and the game were only intended for academic research purposes .