Jerry Lawson
HIDDEN HERO OF HISTORY

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Gerald "Jerry" Lawson *was an* **electronic engineer** *who pioneered the first video game console with interchangeable games.*

Electronic engineering is a branch of engineering that deals with the design, creation, and operation of electronic devices and systems, like music players, GPS devices, and game consoles.

Jerry Lawson was raised in Queens, a borough in New York City. He had parents who fostered his favorite scientific hobbies including **ham radio** and chemistry. Ham radio is for radio enthusiasts who use frequencies to send messages, perform experiments and take part in self-training.

At the age of 13, he earned an amateur ham radio license and then built his own station at home with parts that he bought from local electronic stores. He was also making walkie-talkies from scratch and selling them to neighborhood kids. And throughout his teen years, he would make house calls to repair his neighbors' TVs. He grew to become a self-taught engineer.
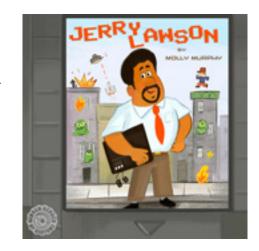
In 1968, Mr. Lawson and his wife moved to **Silicon Valley** to be in the place where new technologies were being founded. Silicon Valley is located in San Jose, California, and is where many technology companies like Apple and Google were started. Mr. Lawson soon became part of the **Homebrew Computer Club**, a group of early computer hobbyists including the soon-to-be-famous Apple founders, Steve Wozniak and Steve Jobs.

In 1970, Mr. Lawson was hired by a company called Fairchild Camera and Instrument (Fairchild) as an engineering consultant. Fairchild was a company known for various new technologies, like flash photography equipment. In his spare time, Mr. Lawson would work in his makeshift lab in his garage where he built "Demolition Derby" — an arcade game inspired by Pong. His employers at Fairchild heard the news of his Demolition Derby creation, promoted him, and asked him to create a video game console for the company.

In 1976, Mr. Lawson created a product known as Channel F, the first console to use interchangeable cartridges. This meant you could play entire collections of games on the console. Before Channel F, all consoles would come with only one or just a few preset games. Mr. Lawson's console was a revolutionary invention!

Sadly, Mr. Lawson's Channel F console got lost in history. When Atari — a much larger electronics company — took notice, they created and released their own console. Atari was already a popular company with a well-known roster of games, and sold millions more consoles than Fairchild. The Channel F was eventually discontinued, but still served as the foundation for all future consoles.

Jerry Lawson's legacy lives on.

Mr. Lawson was one of the only Black engineers to work in Silicon Valley at the time. He paved the way for others to come after him, and various honors and awards were created in his name. This has been vitally important for an industry that still suffers from unequal representation.

He was honored as an industry pioneer for his work on the game cartridge concept by the International Game Developers Association. And the school, USC Games, created the Gerald A. Lawson Endowment Fund for Black and Indigenous Students. The award was established to educate and train more Game Developers from two demographic groups that have been under-represented in the game industry.

Jerry Lawson's work changed the course of an entire industry and made the creation of video game systems we use today, like PlayStation and Xbox, possible.

Glossary

Electronic engineering – Electronic engineering is the name for the field in which people invent, create, improve and fix electronic devices, tools and equipment.

Electronic engineer – Electronic engineers use lots of math, science and research to develop all kinds of small and large devices and the electrical circuits that help them run.

Ham Radio – Amateur radio is often called Ham Radio. It is a fun hobby for people who like to talk using radio transmitters. People who use amateur radio are often called amateur radio operators, hams or amateurs.

Silicon Valley – The geographic area in northern California where many high-technology design and manufacturing companies are located, like Apple, Meta and Google. The area was named in the early 1970s after "silicon," the primary material found in computer microprocessors.

Homebrew Computer Club – The Homebrew Computer Club was a group of computer hobbyists who met in Menlo Park, California between March 1975 and December 1986.

Sources: Study.com, Kids Encyclopedia Facts, History Computer

Give it Some Thought

- How do you think Jerry Lawson's interests as a child and teen helped guide his path to becoming an electronics engineer?

- What important character traits do you believe Jerry Lawson had that helped him in his job and led him to come up with a revolutionary invention for the video game industry?

Use Your Imagination

In this episode, Jonathan and Mr. Redge fall through a portal inside a video game! As they play and find their way back home, they solve clues that unlock the story of Jerry Lawson's life. While on their epic quest, they encounter three different characters—a knight, dragon and an evil wizard—who tell them the fascinating facts of this extraordinary electronics engineer.

Now it's your turn to create a video game character.

Use your journal, a separate piece of paper or the **My Video Game Character!** worksheet to write down your responses to the following:

- Character's name
- Description
- Mission/Purpose
- Special Skills
- Special Equipment

Draw a picture to show what your character looks like.

> **Parents and Teachers:** If your child or student wants to explore more on video game design, we suggest Kidskonnect Game Making Worksheets. You need to sign up for an account to download, but there is a free version available: **https://kidskonnect.com/science/game-making-in-scratch/**