

The Internet Archive put your favorite LCD handheld games online

The Internet Archive has launched a Handheld History Collection filled with about 60 emulated versions of retro handheld games to take you back to the long car rides of your childhood. Archived games include Tiger Electronics' *Mortal Kombat*, Bandai's *Burger Time*, and Parker Brothers' mini tabletop version of *Q*bert*, all of which can be played directly from your browser. MAME developers have classified over 200 games as "handheld," so if you don't see your favorite game on the list, be patient because more games will be added soon.

Archivist Jason Scott outlined the emulation process of LCD, VFD, and LED-based games to MAME, and the thoughtful consideration that goes on behind determining which games need to be preserved for posterity. Though it's possible to read the chips of a circuit board without destroying the original machine, some LCD games have to be taken completely apart to extract all the information.

A selection of the offerings currently available.

Image: Internet Archive

He uses an example with the LCD version of *The Nightmare Before Christmas* to show how it's necessary to scan, vectorize, and trace each component of the game. The LCD panel

has to be disassembled from the circuit board beneath to determine which part of the layer to light up at certain points of the game. You can check out the image slider below to see how the LCD layer is separated from the fixed illustrated background.

On the left: "The LCD display itself, which has a pre-formed set of images that do not overlap and represent every possible permutation of any visual data in the game."

Internet Archive

Though the physicality of holding and playing games on the plastic hardware makes for the most authentic experience, destroying one handheld so it can be played by future generations online still a necessary sacrifice in order to preserve gaming history. The Handheld History collection is a welcome addition to the Internet Archive's already excellent lineup of archived games, including MS-DOS and classic console games from Atari and ColecoVision.

<https://www.theverge.com/2018/3/19/17138752/internet-archive-handheld-history-collection-game-emulator-mame>