## = Gumball (video game) =

Gumball is a 1983 video game by Robert Cook and Broderbund in which the player controls the valves of a maze @-@ like machine to sort gumballs by their color . The player meets the quota of each level to earn their character ? a factory worker ? a promotion , resulting in a raise in difficulty with more color choices and defective gumballs to exclude . Broderbund co @-@ founder Doug Carlston conceived of the game 's machine @-@ sorting concept , and Cook , the designer , added the gumball conceit . He designed the main gumball processing machine within a week and later returned to add smaller features , like sound and decorative animations . The developer also hid a secret image within the game that was only found three decades after Gumball 's release . Broderbund tested the game and prepared its packaging . Gumball debuted at the June 1983 Consumer Electronics Show and released for the Apple II , Atari 8 @-@ bit family , and Commodore 64 platforms . Reviewers separately noted the difficulty of the game 's later stages , praised its comical elements , and commented on the social role of simulating mundane work . The game did not become popular and copies of it became rare .

## = = Gameplay = =

Gumball is an arcade game for the home computer in which the player works in a factory as a gumball sorter and sorts gumballs by color as they flow through a maze @-@ like processing machine . The player controls valves in the machine to divert the flow of individual gumballs towards bins of corresponding colors . If the player sorts incorrectly , the foreman walks onscreen and dumps the gumballs out the bin . The player has a daily quota to meet by the end of the level 's time limit . If successful , the player character receives a promotion ; the player watches an animation of a worker walking home from the factory , and progresses to a more complex level , with more color options to sort and defective , explosive gumballs to deactivate . If unsuccessful in meeting the daily quota , the game ends and the player is left to restart from the beginning .

The game requires a color television or monitor, and optionally works with a joystick or paddle controller.

## = = Development = =

Robert Cook wrote Gumball for publication by Broderbund in 1983. Broderbund had a reputation as a successful publisher. Its games and productivity software each composed about half of the company 's output, and their software in both categories reached the top of sales charts. Broderbund co @-@ founder Doug Carlston conceived the core concept of a machine that sorts based on color, and Robert Cook expanded the concept with the gumball conceit. He spent a week designing the main processing machine, with its pipes and valves. Though he later returned to add more background detail, his original pipe design did not change. Most of Cook 's time was spent programming the game 's functions, such as the how individual gumballs move through the pipes.

Once the basic functions ran reasonably well , Cook focused on making the game fun , with challenge and incentive to return . He added smaller features like sound effects and music , conveyor belt animations , and scorekeeping , but each new feature brought new software bugs to address . To make the game more interesting , Cook added the gumball bombs and tweaked the mechanism that caught them . He iterated through prototypes including a player @-@ controlled claw and an item that traversed the pipes before finally deciding on crosshairs for the player to fire . Cook also added the game 's time limit and the differences between levels . Closer to the end , Cook coded Gumball 's title page and the animated transitions between levels .

Cook then sent the game to Broderbund for testing, which took two weeks. He resolved three small errors and other minor, proposed changes before submitting the final version. By this point, the company had printed the game 's packaging? boxes, labels, and documentation? such that they were ready to ship after receiving the approval from game testers. The game debuted at the June 1983 Consumer Electronics Show and was later released on diskette for the Apple II, Atari 8

@-@ bit family, and Commodore 64.

In 2016, an Apple II software cracker team found an Easter egg hidden by the game 's creator 33 years prior. Cook had hidden a secret congratulations screen in the game for players who entered a specific keyboard key combination at a specific time and solved the resulting series of substitution ciphered clues. Cook congratulated the cracker team on Twitter. The crackers found the secret while working to preserve the game for the Internet Archive by removing its digital copyright protections. One of the crackers said that while most 1980s games could be cracked by automation, Gumball 's protections, coded by Roland Gustafsson, were exceptional.

## = = Reception = =

Chris Browning of the Eugene , Oregon @-@ based Atari Computer Enthusiasts wrote that Gumball was a good interlude between shoot @-@ em @-@ up games , but found that he lost interest when tasked with sorting four or more colors of gumballs . Compute ! 's Gazette thought that Gumball was fun , and highlighted its "comical "elements , such as the factory manager emptying the player 's bin when the player incorrectly sorts the wrong color into it . The magazine described Gumball as a "strategy @-@ action "game and considered it a useful aid in developing faculties of logic and hand @-@ eye coordination . David Hunter of Softalk asked whether the game was satirical commentary " on the Great American Dream of climbing the corporate ladder "depending on whether the factory work inculcated "good work habits " or " Disney @-@ esque automatons " . He wrote that the game had what corporate trainers would want : an introduction to repetitive tasks and a sense of nervous energy . Three decades later , Jason Koebler of Motherboard summarized that the game never became popular and that copies of it became rare .