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From STEM to STEAM: A Carnival Ride Into Engineering

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Lots of folks have been trying for years to figure out how to get today's kids interested in [Science, Technology, Engineering, and Math \(STEM\) careers](https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/tech-talk/at-work/education/the-path-to-one-million-more-science-and-engineering-grads) (<https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/tech-talk/at-work/education/the-path-to-one-million-more-science-and-engineering-grads>). A pair of serial entrepreneurs—Brent Bushnell, profiled in *Spectrum's* [2012 Dream Jobs Special Report](https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/geek-life/profiles/dream-jobs-2012-rube-goldberg-2010) (<https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/geek-life/profiles/dream-jobs-2012-rube-goldberg-2010>), and Eric Gradman, whose latest venture is [Two-Bit Circus](https://web.archive.org/web/20130511031928/http://twobitcircus.com/) (<https://web.archive.org/web/20130511031928/http://twobitcircus.com/>)—think efforts so far have been missing something—art. So they're mixing in art with engineering to create a new acronym, STEAM, and a new venture, the STEAM Carnival.

Bushnell and Gradman envision [STEAM Carnival](#)



(<https://web.archive.org/web/20130511031928/http://www.kickstarter.com/projects/twobitcircus/steam-carnival-o>) as taking classic carnival games, which have always appealed to kids, and updating them with technology, particularly the kinds designed to wow youngsters, like lasers, tesla coils, motion capture systems, robots, and shooting flames. An unexpected combination? Not really, Brent Bushnell's father, [Nolan Bushnell](https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/tech-talk/at-work/education/atari-founder-plans-to-make-education-as-addictive-as-video-games) (<https://web.archive.org/web/20130511031928/http://spectrum.ieee.org/tech-talk/at-work/education/atari-founder-plans-to-make-education-as-addictive-as-video-games>), worked as a carnival barker before launching the video game industry by founding Atari. (A story I hold near and dear to my heart, having worked as a barker for a very low-tech carnival game myself before becoming a technology journalist.)

STEAM Carnival will include a digital art gallery, a concert with musical robots, and a fashion show of wearable electronics. They're also putting together their own version of Heath kits, in this case, mechanical and electrical components to allow kids to recreate some of the games at home.

The whole kit and kaboodle will be a traveling road show, starting in Los Angeles and San Francisco next year. They're funding the development by selling advanced tickets and other goodies on Kickstarter (see two videos, above). In its first few days their campaign raised US \$37 000 of a \$100 000 goal.

Is STEAM Carnival going to make its founders a fortune? Probably not. But they'll have a great time thinking up and building the components, will entertain a few communities, and just may capture the imagination of a few kids wanting to further explore a "STEAM" career. (And dare I hope that my youngest son, who likes math, science, AND art, will be one of them?)

Photo: Children try out wall twister, one game that will be part of STEAM Carnival. Credit: CuriousJosh