

GoldieBlox: Shaping the Next Generation of Female Engineers

by [Alicia Chang](#) — December 2, 2012 — [No comments](#)
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When Debbie Sterling was applying to college, her AP Calculus teacher asked what she planned to major in. Like many high school seniors, Debbie was undecided. Seeing that she consistently scored at the top of her class, her teacher casually suggested that she consider engineering.

The recommendation stuck with Debbie. She went on to Stanford University and found herself inspired by Professor David Kelley, the founder of design and innovation firm IDEO. Debbie became enthralled with the principles of what Professor Kelley called “human-centered” product design—designing with the purpose to improve people’s lives—and worked fastidiously toward a degree in mechanical engineering.

But Debbie was, like many in her shoes, [one of only a handful of women](#) in most of her engineering courses, and she began to wonder why the ratio was so skewed. Few female professors in her department equaled few visible mentors for aspiring female engineers. “[You can’t be what you can’t see](#),” reasoned Debbie. After delving deeper into statistics on gender disparities in the science, technology, engineering, and mathematics (STEM) fields, several findings stood out to her: Only 11% of engineers in the United States are women. Moreover, girls begin to lose interest in math and science as early as age 8.

Since there is no conclusive evidence that there are innate gender differences in STEM ability, Debbie concluded that there must be a difference in the way young girls and boys are socialized. Walking through a toy store, it’s hard not to be visually bombarded by the huge disparity between the toy aisles: The girls’ aisle is overwhelmingly pink, full of dolls and princess fantasies, while the boys’ offers choices like erector sets and chemistry kits.

Fascinated, Debbie soon immersed herself in the scientific literature on children's play patterns and spoke with many experts in child development and neuroscience. After a year of careful research on gender differences, it was clear: There was a large discrepancy in the toys available on the market. Those made for girls were not cultivating their interests or talent in STEM-related skills in the same way toys made for boys were. "I discovered that there is one prominent barrier to girls developing skills that set them up for success in engineering," says Debbie. "Boys tend to have advanced spatial skills and are more confident in their ability to build, which is why they love construction toys so much. Meanwhile, girls tend to have superior verbal skills, but not much confidence when it comes to building."

With her background in product design and passion to encourage more girls to pursue the STEM fields, Debbie began to develop the idea for a toy that guides basic spatial skills needed for engineering, while appealing to young girls' curiosity and interest in telling stories. Her idea soon became all-encompassing—she found herself thinking about it constantly, and she knew that she wanted to pursue it full time. And so, she founded her own toy company, [GoldieBlox](#), in March 2012.

GoldieBlox strives to combine storytelling with construction in a way that is engaging, fun, and developmentally appropriate for girls ages 5-9. Mixing the right amounts of spatial and verbal learning with an accompanying interactive e-book adventure, Debbie's first product, GoldieBlox and the Spinning Machine, raised over a quarter million dollars on Kickstarter, and is currently in production to ship to eagerly awaiting customers in February 2013.

Debbie and the GoldieBlox team are also busy working on exciting partnerships and ideas for future toys, including playsets geared toward younger and older age groups, as well as toys that boys will enjoy just as much as girls. "I'm creating a toy company that teaches little girls what engineering is, making it fun and accessible the way Lego and Erector sets have done for boys for over 100 years," says Debbie. "I'm making sure that girls don't have to rely on a serendipitous comment from a teacher to realize their passion for engineering."

So, if you're looking for a unique and fun way to inspire a budding young engineer in your life, check out GoldieBlox (GoldieBlox and the Spinning Machine is available for preorder at [GoldieBlox.com](#)).

Or, if you're like Debbie, with a dream of your own that you'd like to turn into a reality, here's her advice: Don't let your dream fall into the background. "It has to be an obsession," she adds. At the same time, she cautions, you should be pragmatic. Make sure you [prepare yourself financially](#) and emotionally for the inherent risks of entrepreneurship. Do your homework, learn everything you can about the field you're interested in, and talk to as many people about it as possible. And finally, *go for it!*