

Plastics News

Inventor brings US business into loop with Wonder Loom

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WIXOM, MICH. — Two years after going into business, Rainbow Loom inventor Cheong Choon Ng was nearing the millionth sale of his plastic-pronged device for weaving colorful rubber band bracelets.

The \$16.99 kits were flying off the shelves of Learning Express toy stores and the former crash safety engineer for Nissan had an exclusive deal with Michaels, a national arts and crafts store.

The retail craft giant started carrying the injection molded ABS looms and hooks in its 1,125 stores the first week of August. Rainbow Loom sales skyrocketed for Ng, the owner of Choon Designs LLC, which is based in Wixom.

Ng, 45, now moves about a million units a month as the craze to make jewelry, headbands, key chains, and even sculpt super heroes out of tiny rubber bands sweeps the tween market.

Ng's product got on Michaels' radar after it received a Craft and Hobby Association Innovation Award. The company's "trend team" saw "winner" all over it, too, according to Philo Pappas, executive vice president of category management.

"The Rainbow Loom is selling 10 times better than Michaels' previous best-selling kids products," Pappas said in an email.

School by school and state by state, the Rainbow Loom finds enthusiastic new fans in 6- to 13-year olds. For the most part, parents don't mind. Their children put down their electronic devices. They loom alone and with friends. They use their imaginations to design new patterns. They use their creations as gifts, fundraisers for charities and to make a little side money. "Kidpreneurs" take and fill orders for color combinations that match friends' outfits and team uniforms.

The frenzy led a couple of New York principals to ban students from bringing Rainbow Looms to school because they became a distraction.

"It's so wild. Rainbow Loom is a household name," Ng said in an interview at his lived-in office in a small warehouse. "I am still waking up every morning and asking myself and telling myself at the same time: 'Is this for real? This is real.' This is a dream come true."

A futon with a blanket is next to his desk, which is covered with food wrappers, paperwork and a computer warbling the next incoming Skype call from a business associate. Ng is busy. He expects sales to reach 5 million units by the end of 2013 and he is looking ahead. For 2014, he plans to release a travel-size Rainbow Loom, a deluxe kit and accessory organizers to stay ahead of the copycats flooding the big box stores.

Ng also designed the Wonder Loom and licensed it to two East Coast plastics companies, The Beadery and Toner Plastics, for a made-in-the-USA version of his hit product. Wal-Mart Stores Inc. sells the Wonder Loom for \$12.88 in its craft department. The two companies are making about 150,000 units a week for the biggest U.S. retailer, and Ng gets royalties.

Not bad for a dad, who at first, simply wanted to join his daughters in an evening activity at their home in the Detroit suburb of Novi back in 2010.

Engineering an idea

Teresa and Michelle Ng, then 12 and 9, respectively, were twisting and linking the little rubber bands used to tie pony tails into bracelets. Ng recalled doing the same thing as a Chinese boy growing up in Malaysia with larger rubber bands to make jump ropes.

Ng sat down with his girls to impress them with his skills but his fingers were too big to weave the bands barely a half-inch in diameter.

Engineer instincts kicked in. He got a piece of wood from the basement, arranged some push pins on it, and used a dental plaque remover like a crochet hook to make a single-chain bracelet.

"When I showed it to my daughters, they weren't so excited about it," Ng

said. "They could do that by themselves. I tried again with more push pins in multiple rows. It turned out really nice. It was a diamond-shaped pattern and they said, 'Oh my gosh, we have never seen one like it.' They wanted to have one, they wanted to know how to make them, and they wanted to show their friends."

The Rainbow Loom put a new twist on the basic chain the girls had learned from their mother, Tyng Fen Chan, who grew up in the same small town as Ng. They showed their neighbors and friends; everyone had the same reaction: Make me one, teach me to do it.

"Everybody got excited," Ng said. "I thought, 'Wow, this could be something big if I'm able to sell it as a product.'"

First, he had to sell his wife on the idea of using their savings — \$10,000 in a college fund for the girls — to get started. She didn't want to risk money they scrimped for education — their highest priority — on a long shot like the toy and craft market.

"I wanted to protect that money," she said.

Still, she said she couldn't ignore the public's reaction and her husband's determination. Ng worked nights on 28 iterations in six months and came up with new designs. He was fueled by compliments and the challenge of benchmarking himself.

"I saw the excitement, and it inspired me," he said. "I couldn't stop myself. I wanted to find all possible patterns, and I was making prototype parts. I thought this is a great hands-on activity and social tool if I could develop it."

One day when he felt he got it right, Ng slipped a loomed rubber band ring on Chan's finger. A few hours later, she was on board.

"She told me she thought it would work," he said. "That marked a big change. We were on a new journey. She is my wife, my most important partner, and having her agree was the most important thing."

Looming success

Ng budgeted \$5,000 for tooling and \$5,000 for parts. He checked out U.S. manufacturers, but he said he couldn't afford even the lowest quote of \$12,000 for tooling alone and most prices were in the \$20,000 range.

"I turned to overseas, to China, the south area that neighbors Hong Kong," he said. "They have already been making most of the toys in the world and like it is so often true, I knew somebody who knew somebody who knew

who to talk to."

Ng said he studied some 15 suppliers about materials, where they got the metal for their tooling, their molding processes and their quality control.

"The volume wasn't an issue because with the tooling you can usually make 300,000 units," he said. "My purchase was 10,000 units, which is really, really small. This was nothing to them. Obviously, I wasn't a center-stage customer. But that's different now."

Ng picked a company and ABS for its durability.

"It's a safer plastic," he said. "When it breaks, it doesn't create sharp edges, and it's a good quality used for many toys like Lego blocks."

Ng and his daughters visited stores and kiosks at the mall in search of outlets. They were told to contact corporate offices but got nowhere. Ng made YouTube videos to demonstrate how the loom works in an attempt to spur online sales. That was back in July 2011.

Sales were sporadic until a year later when Ng got some bites from independent toy stores. A sales rep for Learning Express inquired about the interesting new craft and placed an order for 24 kits and some rubber bands for the store in Alpharetta, Ga.

"We shipped it quickly and a day or two after they received it they told me they sold out of everything," Ng said. "I said, 'Really, how many more do you need?' They said, 'How about 48?' So we sent them 48 and the next day they called and said, 'We need more.' They ordered \$10,000 worth. I was so happy but pressured. It would take days to assemble that many."

The Ngs had been filling orders out of their house by themselves. They recruited friends and neighbors to help them keep up with demand. In fall 2012, Ng left Nissan to focus on his growing business.

More Learning Express stores picked up the product, and its popularity spread to North Carolina, then Florida, Pennsylvania, New Jersey, New York and Massachusetts.

The Rainbow Loom currently is in 2,100 stores and shows up as the No. 2 best seller in the toys and games category of Amazon.com. The product was featured by talk show host Ellen DeGeneres, and a celebrity gossip outlet recently revealed Gwyneth Paltrow's son wants one for Christmas.

"Kelly Ripa wore a bracelet and David Beckham, too," Ng said. "It's crazy."

Two girls who go by "Ashley Steph" also have gotten 6.1 million YouTube

hits in just over three months for a tutorial on how to make a starburst pattern. A half million of the hits came between Nov. 19 and 24.

"It's still catching on in the United States, and I think it will be everywhere," Ng said. "I think it's more than a fad. I think it's a craft. I've seen seven books showing people how to make Rainbow Loom jewelry."

Crafters have moved way beyond bracelets. Ng follows their artistic endeavors on Facebook. He scrolls down a screen of postings showing handbags, charms, figures of Tinker Bell and The Grinch, and a flag of the Philippines. Some kids even went as Rainbow Looms for Halloween in home-made costumes.

"Our family is very humbled by this experience," Ng said. "Any family would be."

He is pleased with his partnership with Michaels, which prominently displays the Rainbow Loom — a limit of 24 per customer was set — and took it on a bus tour celebrating the business's 40th anniversary.

Made in America

However, Ng said he was bothered by both his early inability to manufacture the Rainbow Loom in the United States and the contract obligation to turn down requests from other national retailers. So he returned to the drawing board and found a way to do both.

Ng designed another product called Wonder Loom and licensed it to The Beadery in Rhode Island and Toner Plastics in Massachusetts. Steve Graham, co-owner of both businesses, said The Beadery supplied craft materials to Wal-Mart but had so much excess capacity it was only two weeks from closing until he bought it in bankruptcy in February.

Graham looked for a new product for the estimated 30 employees to make. At the same time, Wal-Mart was in search of a loom to carry, and Ng was trying to hook up with a U.S. manufacturer.

"It all came together in a flash," Graham said. "Choon and I started out talking on the phone. He told me he's seen all the bad that has resulted from the decline of manufacturing in Detroit. He said it would make him very, very proud to produce a product in the U.S. I told him we have a relationship with Wal-Mart, and they're interested. If you want to get together let's do it."

The two businessmen met with Wal-Mart officials at the corporate headquarters in Arkansas in August — a day after the retailer held a widely publicized manufacturing summit in Florida to build on its commitment to

buy \$50 billion more of products made, sourced or grown in the United States.

"Again, the timing was just perfect," Graham said. "Everybody had a real sincere interest to make stuff in the USA. The other critical factor was that time was of the essence to have a product ready for Black Friday. It was an extreme challenge but we have great people at The Beadery. Everybody ramped up in a matter of weeks and the presses started pumping out product."

Six lines go 24/7 molding Wonder Looms, which hit about 3,700 Wal-Mart stores on Nov. 8, Graham said. Even the rubber bands in the kits are made in America. He is meeting shipping requests of 150,000 units a week and hopeful about the implications for other U.S. businesses.

"As a small plastics manufacturer, it was important for us to show a company like Wal-Mart that given the opportunity, we can put product physically on the store shelf in eight weeks, which is an incredible turnaround," Graham said.

"We're shipping significant numbers of units every week, and I think this demonstrates to a company like Wal-Mart that we can compete. They don't need to go to China. We're doing it at a competitive price and fast, if not faster, and they don't have that inventory issue. They can call us in the morning and say, 'We need 30,000 units,' and that gives them a strategic advantage. Everybody else who is buying from China is done. They can't get anything in for Christmas. You can't even fly it in and get it in time because Samsung and Apple have all the planes tied up."

Graham said the last three months have been a blur of making molds, lining up vacuum-formed trays, boxes and labels, and shipping product.

"The rate of sales right now is extreme," he said. "There are probably 100 people working on this that weren't working in September."

Ng gets great satisfaction from the ripple effect to other U.S. businesses.

"I'm very proud of this. It's what I wanted to do to begin with," he said.

However, Ng bristles a bit at the fact that Wonder Loom is in Wal-Mart's craft department while a copycat from China is in the toy department. The front page of his website has a "special alert" warning consumers about counterfeits being "unsafe." Ng said most are made of cheaper polystyrene that forms a sharp point when broken.

He also has some lawsuits pending over a rival kit sold at Toys 'R Us as well as the C-shaped fasteners that hold the bracelets together.

Ng has a lot of legal and business issues to weave into his days. When pressures mount, sometimes he pulls out a Rainbow Loom or Wonder Loom to calm the nerves.

"It's relaxing," he said. "Once you get the hang of it, you flow with it. There were days when it was hectic for me at Nissan. I'd come home and make a bracelet to clear my mind. I think it's good in many ways."

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