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Orinda Dad Shares Roller Coaster Joy

By Cathy Tyson



Will Pemble and son, Lyle, are ready to roll.
Photo Ohlen Alexander

It's not easy to build a roller coaster. Pemble describes his process as, "Think, dream, draw, build, think, dream, draw, rebuild, test, break, fix, rebuild," and so on. "There's no shame in failure." Apparently it takes a few coaster cart crashes to find the right design; one of his web postings explains, "From our pile of slightly twisted metal will come a new design, a rebuilt cart, and a far more stable wheel assembly. All told, it was a great couple of days!"

Initially it took about six weeks and \$3,500 in order to be ready for a Halloween block party last year. Refinements have continued and Pemble admits it's gotten a little out of hand. The newest version of the steel cart with tricked out wheels has taken roughly 40 hours to build.

Excited and very proud of the "Caution Zone," so named for the safety area surrounding the wood and PVC pipe structure, a new version of the cart, with transparent seat freshly attached just moments before, was taking its maiden voyage when Lamorinda Weekly stopped by. Instructing Lyle to hold on tight, since the seat belt hadn't been installed yet, Pemble quipped "don't want to sacrifice the offspring." He was tickled at how well it turned out, with more advanced features like decoupled wheels made from recycled I-beams, snagged when a neighbor got rid of old garage door tracks, massive skateboard wheels, and a clear floorboard to view the cart components. Each wheel assembly can steer individually and pivots.

Clever and handy, with a Bachelor of Science degree in aeronautics from Louisiana Technical University, and a commercial pilot's license, Pemble had to start from scratch, although Lyle certainly pitched in. That was part of the mission, to make science and math tangible, something that is more relevant and concrete than doing endless worksheets. A student at Orinda Intermediate School, Lyle is naturally curious, and started this whole process by researching roller coasters.

Pemble is hoping to leverage the success of the coaster project to educational video learning, similar to George Lucas' Edutopia.org or the Khan Academy that offers free user-friendly educational lessons in bite-sized chunks, geared for the shorter attention span of youngsters. On the CoasterDad website are examples of these lessons - one features a Ruben's tube hooked up to a keyboard, in which Pemble explains the process simply and clearly, then plays the Star Spangled Banner as the music is expressed in propane flames. How cool is that?

Pemble is now a management consultant; prior to that he was the founder and CEO of web.

Passionate backyard engineer and devoted dad Will Pemble, with help from his charming sixth grade son Lyle, has built a backyard roller coaster in Orinda. Clearly thrilled with the challenge, Pemble came up with the CoasterDad Project as a way to share physics, family and fun on a grand scale, way beyond the kids in the immediate neighborhood, via the Internet on YouTube and at www.coasterdad.com. It's working, going viral with thousands of subscribers on YouTube and pushing a million views of the video. News of the coaster has even reached the land Down Under, and will soon be featured on the Australian version of Good Morning America.

"I believe in the 'wow' factor," said self-described insanely curious Pemble. With projects like a luge track in their former Connecticut backyard and some home remodeling experience under his belt, Pemble decided to go for it, in a big way.

com, which has since been sold. Wife Liz Pemble and daughter Ellie are supportive, but this really is a father and son project. Defining the coaster as a 'temporary structure,' Pemble has done the math (no surprise there) and estimates the wood coaster supports should last approximately three years, but he says it will be de-constructed much earlier than that.

Next on his list is a trebuchet - a type of catapult that was used in the Middle Ages. Who knows if the family-friendly neighborhood block party is ready for a contraption that can launch pumpkins into the air?



Will Pemble works on the coaster cart in his well-equipped garage. Photo Ohlen Alexander

Reach the reporter at: cathy@lamorindaweekly.com

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