

**SURF'S UP!** by Mike Drummond

**Four Kid Inventors Design a Boogie Board for Breakers**

A quartet of kids popped up on Sally Ride Science's radar a few years ago when the youngsters won top prize in the organization's TOYchallenge competition. The kids built a Boogie Board for two that was specifically designed to ride the "soup," the foamy surf that washes ashore after waves break. Ocean-loving kids love to play in the safer white water.

Amy Hansen, 16; her sister, Alyssa Hansen, 14; and siblings Nicholas Johnsen, 15, and Kaycee Johnsen, 14, all from Irvine, Calif., were tweens when they hit on the idea for their Boogie2Boogie board. The tethered boards are boomerang shaped, giving them a wider surface area more suitable for riding breakers.

These young innovators also equipped the Boogie2Boogie with a remote signal light, so parents could summon them – an astute safety feature.

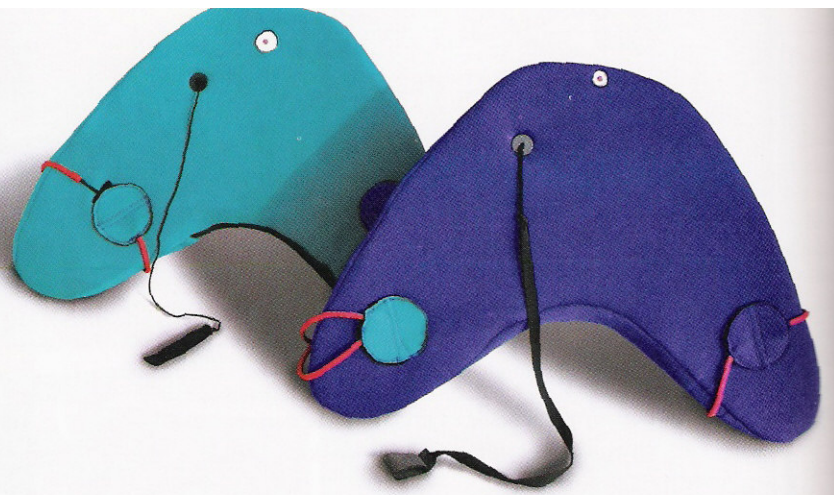
They landed a commercialization contract in November 2004 with By Kids For Kids Co (BKFK). *Inventors Digest* caught up with them for an update. The board had not hit store shelves as this article was going to print.

"It started when we decided to compete in the TOYchallenge," says Kaycee Johnsen.

"We were at the library, and we made a list of what we like to do. We decided that since we are all from a beach town, and we all like to go to the beach, we wanted to make a beach toy.

"We decided that we should improve on the original Boogie Board design. The design of the Boogie Board is the same now as it was when it was originally invented," she adds.

"And, it is designed for riding on the face of the waves like surfboards. Kids ride in the white water near the shore. We



started thinking of problems like that we have with regular Boogie Boards and seeing if we could fix them."

Amy Hansen says one of the problems is the crashing surf drowns out the sounds of parents harkening from shore.

"We can't hear our parents calling when they want us to come in to shore, so they yell at the top of their lungs and wave their arms around," Amy says.

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**"The first thing we decided to put in our board was a remote-controlled light so that our parents could contact us from shore without embarrassing us."**

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"The second thing we realized was that when we go to the beach with a friend, we would get separated from one another. We thought it would be really fun to be able to ride together. These were our first two ideas. I also wanted to put a bun warmer in the board, but my idea got vetoed!"

**THE LABOR BEGINS**

After brainstorming in a library, the kids set about the laborious, but necessary, task of research. They examined hydrodynamics, materials and the history of the Boogie Board. Next came designs, 3D models and finally prototypes. The original Boogie2Boogie board went through several iterations.

"One challenge was finding a way to make the light safe while also making it so you could see it in the water," says Nick Johnsen, who's attending Huntington Beach High School, in Huntington Beach, Calif.

"We had to find a way to completely encase the light so that the electrical components would not get wet. Originally, I wanted to put GPS technology in the board, but we decided not to do that because it was expensive.

"Another challenge was working on a team," he adds. "We each had different ideas that sometimes contradicted each other."

The hard work paid off when they shared top prize in the TOYchallenge in 2004. "After we won the prize, several companies were interested in Boogie2Boogie," Alyssa says. "By Kids For Kids made us an offer to take our toy and get it patented and take it to market. We realized this was a great opportunity because we didn't really know how to take something to market."



Photos courtesy of BKFK

Amy Hansen, Alyssa Hansen, Kaycee Johnsen and Nicholas Johnsen in action with their invention, the Boogie2Boogie board. The Boogie2Boogie boards pictured at top.