



BY MAURY WRIGHT, EDITOR IN CHIEF

Sportslike competition drives science and technology education

We in the trade press are asked daily to spread the word about everything from new products to “can’t-miss” upcoming events or seminars. Our role as filters of information means that we say no most of the time. At the recent National Instruments Week conference, however, Dean Kamen, founder of DEKA Research and Development Corp (www.dekaresearch.com) and inventor of the Segway, pleaded for help in spreading the word about FIRST (For Inspiration and Recognition of Science and Technology, www.usfirst.org), the organization he founded in 1989. FIRST is an attempt to transform our culture and make science and technology as attractive to kids as sports and entertainment.

Kamen is a compelling speaker. He offered a disclaimer at the beginning of his talk suggesting that he was not an accomplished speaker. Don’t believe it. All engineers should hear his thoughts on innovation. I’ll share some of those thoughts in a future column. But here I’ll stick to his thoughts on encouraging technical careers and the global race to develop a deep technical-talent pool. (See the **sidebar**, “Global friends or foes,” at the Web version of this editorial at www.edn.com/060901ed1.)

On DEKA’s home page, you’ll find the following Kamen quote: “You have teenagers thinking that they are going to make millions as NBA stars when that’s not realistic for even 1% of them. Becoming a scientist or engineer is.” Kamen laments that kids aspire and work toward being sports heroes or entertainment celebrities. Meanwhile, he argues that scientists and engineers are almost completely responsible for the incredible standard of living that we enjoy today.

On kids’ passion for sports, Kamen

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states, “They are all amazed that you can get the ball through the hoop 72% of the time ... They wouldn’t want to fly in an airplane that landed 72% of the time.” Kamen even attacks technology as a distraction. He says, “Kids would rather [be sitting] in front of that mind-numbing video game than designing it or building it or understanding it or improving it.”

Through FIRST, Kamen and his many partners are using a sports model to encourage kids to discover their inner engineer. Kamen structured the FRC (FIRST Robotics Competition) like a high-school sports season. Teams get a kit of parts and a limited time to design and build a robot for competition. The first FRC took place in 1992 with the help of 23 sponsor companies and 28 competing teams.

Kamen claims that the competition was an immediate success with the participants and that the engineers who served as mentors liked it as much as the kids did. Those engineers remembered why they became engineers. Success and growth have led the final tournament to a venue at Walt Disney World, then to the Astrodome, and ultimately to the Georgia Dome. Now, regional competitions around the world feed the final competition. Moreover, this success led FIRST to create the FLL (FIRST Lego League) competition for middle-school kids and, more recently, the FVC (FIRST Vex Challenge), which is a more affordable competition than the FRC. In 2005, 1133 teams competed in the FRC, 7500 teams competed in the FLL, and 300 teams took part in the new FVC.

Despite the success, Kamen thinks FIRST needs to reach out to many more kids. The cause is noble, so I’m happy to spread the word. If you and your company are not involved in FIRST, at least take a look at the organization. You might find it very fulfilling, and you might help to ensure continued innovation wherever you live. EDN

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