



## **Dean Kamen**

### **Inventor, Founder of DEKA and FIRST**

As an inventor and physicist, Dean Kamen has dedicated his life to developing technologies that help people lead better lives. As an inventor, he holds more than 440 U.S. and foreign patents, many of them for innovative medical devices that have expanded the frontiers of health care worldwide. While still a college undergraduate, he invented the automatic, self-contained ambulatory pump designed to deliver precise doses of medication to patients with a variety of medical conditions. In 1976 he founded AutoSyringe, Inc., to manufacture and market the pumps. At age 30, he sold that company to Baxter International Corporation. By then, he had developed a number of other infusion devices, including the first wearable insulin pump for diabetics. Following the sale of AutoSyringe, Inc., he founded DEKA Research & Development Corporation to develop internally generated inventions, as well as to provide R&D for major corporate clients.

The array of products and technologies invented and developed by Dean and the engineering team at DEKA is extremely broad. Some examples of notable breakthrough medical devices invented and developed by DEKA are the HomeChoice™ portable dialysis machine, marketed by Baxter Healthcare and the iBOT™ Mobility System, a sophisticated mobility aid developed for Johnson & Johnson. DEKA's other projects include: a DARPA-funded robotic arm project intended to restore functionality for individuals with upper extremity amputations; a new and improved Stirling engine intended to convert almost any fuel into electrical power and clean heat as part of a system that is clean, quiet, easy to use and easy to maintain with a long operating life; new water purification technology intended to convert almost any source water into safe drinking water; and many others. Dean is also widely recognized as the inventor of the Segway™ Human Transporter, which was designed to provide a clean alternative for short distance travel and enhance people's productivity.

Among Dean's proudest accomplishments is founding *FIRST* (For Inspiration and Recognition of Science and Technology), an organization dedicated to motivating the next generation to understand, use and enjoy science and technology. In 2010, its flagship program, the *FIRST* Robotics Competition, will reach more than 45,000 high-school students on more than 1,800 teams in 43 regional competitions, seven district competitions, and one national championship. The *FIRST* Robotics Competition teams professionals and young people to solve an engineering design problem in an intense and competitive way. In 1998, the *FIRST* LEGO League was created for children ages 9-14. Similar to the *FIRST* Robotics Competition, these young participants build a robot and compete in an event designed for their age group. In the 2009/10 season, over

147,000 children participated in 56 countries. *FIRST* also offers the Junior *FIRST* LEGO League for 6 to 9 year-olds and the *FIRST* Tech Challenge, which provides high-school-aged students with a hands-on learning experience to develop and hone their skills and abilities in science and technology.

Dean has received numerous awards and accolades including the Heinz Award in Technology, the Economy and Employment in 1998, the National Medal of Technology from President Clinton in 2000, the Lemelson-MIT Prize in 2002 for Invention and Innovation, the United Nations Association of the USA Global Humanitarian Action Award in 2006, the American Society of Manufacturing Engineers Medal in 2007, the 2008 LEGO Prize, the 2009 Committee for Economic Development Public Policy Award and honorary degrees from more than 25 colleges and universities. Dean was inducted into The National Inventors Hall of Fame in May 2005.