Reinventing Tools for Life

Steven Eppinger

The innovation: Steven Eppinger is bringing together students across disciplines and industries to find better ways of developing better products.

The research: A collapsible water bottle, a garage for Segway scooters, a smarter umbrella. They were all invented in MBA course 15.783J, Steve Eppinger’s highly innovative, interactive, and interdisciplinary product design and development class. Each year, Eppinger brings together students from MIT Sloan, the MIT School of Engineering, the Leaders for Manufacturing and System Design and Management programs (LFM/SDM), and the Rhode Island School of Design to create new tools for living.

While the inventions themselves break ground, Eppinger’s process is arguably the most enduring innovation. It represents the kind of interdisciplinary collaboration he fosters as codirector of the LFM/SDM and as director of the Center for Innovation in Product Development.

In 15.783J, each student team identifies a need, develops a solution, and designs and builds a prototype in response. In some cases, they even pursue a patent and bring the product to market. Eppinger introduces management experts, engineers, industrial designers, entrepreneurs, and industry experts to the process as the project demands. To the mix he adds real-life lessons from his own path-breaking product development research. The result is a dynamic process leading to market innovations.

Eppinger’s students have brought a dozen or more individual products successfully through the product development process, including the “twist and pour paint jug” and a special tripod for birdwatchers. The tripod sets up silently in two seconds flat and stands steadily on uneven terrain. Developed for the Massachusetts Audubon Society, it captured one of BusinessWeek’s annual design awards.

“This course shows students that each phase of the product development process is crucial to the final outcome,” noted Michael McNally, a program officer for the Lemelson-MIT Program, and one of 17 pane lists who judged a recent batch of prototypes developed in the class. “An over-reliance on any one facet or a lack of focus on, say, marketing, design, or intellectual property issues, could result in failure for a potentially viable product. Also, this course stresses teamwork, which I believe is vital in ‘real-world’ projects.”

In addition to teaching in the MBA program, Eppinger also leads two executive programs, "Product Design, Development, and Management" and "Managing Complex Product Development Projects."

Learn more about Steven Eppinger:
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