

**Opening Statement of Chairman Fred Upton  
Subcommittee on Commerce, Manufacturing, and Trade Hearing “Disrupter  
Series: Advanced Robotics”  
September 14, 2016**

Today our Disrupter Series turns to advanced robotics for what I am sure will be an interesting and thoughtful discussion. I am particularly excited to welcome my friend Dean Kamen back to the committee. He has appeared a number of times, adding his valuable insight to our 21<sup>st</sup> Century Cures effort. For those who don't know, he's often referred to as the “Dean of Invention” and has been at the forefront of disruptive technologies his entire career. His decades of leadership and imagination have undoubtedly changed the face of advanced robotics. From the invention of the Segway and the iBot electric wheelchair to the drug infusion pump.

His inventions and entrepreneurial spirit have led to the growth of the FIRST competition. FIRST stands for “For Inspiration and Recognition of Science and Technology.” His passion for innovation inspires students from kindergarten to high school and encourages them to get involved in engineering and other STEM fields. The program has grown from 20 teams to over 45,000 teams nationwide since it was founded in 1989.

I have a personal relationship with FIRST Robotics and am a very proud supporter. My home state of Michigan is becoming “Robot Central” with, by far, the highest number of FIRST teams per capita in the nation. To describe what this competition is like: FIRST teams receive a box with 120 pounds of components and have six weeks to design and build a functioning robot. What they come up with in those six weeks is nothing short of amazing. I've been to numerous competitions across the state, and I'm always impressed with what the kids come up with. It's inspiring, it really is.

From the St. Joseph “Average Joes” team to the “2767 Stryke Force” team in Kalamazoo, innovative STEM programs – like FIRST Robotics – allows for kids in our communities to dream big and aspire to become inventors, engineers, small business owners, and community leaders. It is also refreshing to see kids excited by science, and I would note Dean was greeted like one of the Beatles when he visited St. Joseph High School back in my hometown.

I’m also proud to co-sponsor bipartisan legislation with my colleague Debbie Dingell that would use the sale of a commemorative coin for astronaut Christa McAuliffe, who was tragically lost in the Challenger disaster, to raise money for FIRST programs around the country.

I look forward to hearing even more from Mr. Kamen and all our witnesses about his recent efforts with the FIRST competition and how industry and the government have grown involved with this program. I would also note that the Robotic Industries Association is headquartered in Ann Arbor and Dr. Kota, among his many projects, is a professor at the University of Michigan.

Understanding how industry approaches advancements in robotic technology, whether in capital investments or new partnership opportunities, is critical to understanding how we move disruptive inventions from the lab into commerce to create jobs and economic growth here at home.

I thank Chairman Burgess for continuing the Disrupter Series and highlighting the positive impact that emerging technologies, like advanced robotics, are having on our economy.