

LTU First-Ever Robo Expo Held on Campus

STORY AND PHOTOS
BY GERALD SCOTT

They say the future of this century belongs to the robot.

Well, the present is getting pretty crowded with robots, too, as Lawrence Technological University's first-ever Robo Expo likely attested.

Big, crowded and full of students and faculty programming all manner of robots, the 2011 Robo Expo sought to bring together academia, industry and government entities supporting the fledgling robotics industry.

Held in the Management Building Atrium, sort of a central gathering point on the LTU campus in Southfield, the event demonstrated just how pervasive the interest in All Things Robotics is by the university-aged crowd these days.

The event was important enough to bring LTU President Dr. Lewis Walker to the podium for a few words of inspiration for his student and faculty charges.

"Welcome to this inaugural Robo Expo that we have here on campus," Walker said.

"During President Obama's visit to the Carnegie-Mellon National Robotics Engineering Center on June 24, he launched the Advanced Man-



Lawrence Tech students check out the robots at LTU's first-ever Robo Expo, which brought in 20 different robotics vendors as well as a competition for the students. The Expo is largely designed to bring together academia, industry and government entities involved in robotic use and research.

ufacturing Partnership, which is a very large program to bring industry, universities and government together to invest in emerging technologies, of which robotics is a large part.

"We think now is the time to have a network of organizations related to robotics in Michigan to provide a syn-

ergistic effect by working together. That's why we're really here today – is to be able to do that."

To be sure, robotics is more than just the amusement of seeing R2 and C3PO in the "Star Wars" movies or to have LTU students with robots shaped like dogs or jousting knights providing similar en-

tertainment.

In fact, organizers point out, today robots are doing everything from painting ocean-going freighters and supertankers to overseeing crop production in the fields to guiding senior citizens around nursing homes.

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Ford Salutes Its Military Employees, Earns Award

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actively serving in the military.

The Ford Motor Company Fund also announced last week that it will participate in the Honor Flight Network beginning in November, sponsoring two trips to bring World War II veterans from Detroit and Louisville, Ky., to Washington, D.C., to visit the World War II Memorial.

More than 60 veterans are expected to take part in the trips, where they will also receive letters from family,

friends and students thanking them for their service.

The Honor Flight Network is a nonprofit organization created to honor America's veterans for their sacrifices. Veterans are transported, free of charge, to Washington, D.C., to visit their memorials. The first honor flight took place in May of 2005 from Springfield, Ohio.

Ford Motor Company has a long history of supporting its veterans and military personnel.

Ford's relationship with the Disabled American Veterans

(DAV) began in 1922, when Henry Ford organized a cross-country caravan of 50 Model T's to take disabled veterans to their convention in San Francisco.

Since 1974, Ford Motor Company and Ford Motor Company Fund and Community Services have provided more than \$6 million to veterans' organizations.

Since 1996, Ford has donated 156 vehicles to the DAV for its Transportation Network, totaling approximately \$4 million.

Each year, Ford sponsors

the DAV's winter sports clinic and has supported the DAV's youth scholarship volunteer program since 2000. Ford also helps other veterans through additional vehicle donations and scholarships.

In addition, the Ford Veterans Network Group (VETNG), one of Ford's corporately supported Employee Resource Groups, sponsors activities throughout the year in support of its veterans, military personnel and their dependents.

Ford's support of the military goes back to 1917-18, when the Rouge plant was built on the strength of World War I "Eagle Boat" contracts to Henry Ford.

Detroit Hosts DIAMTS Auto Trade Show

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ly, this trade show will help underscore Detroit's global position."

Also weighing in at the event kickoff press conference was Ellis Smith, pastor of the Jubilee Christian Church on Detroit's east side.

"It is an honor to be here and recognize what's about to happen in our city. Detroit is

the talk of the world. What I mean by that is that as I travel around the country, I hear people say, 'We're praying for Detroit,' we sense something great's about to happen in Detroit," Smith said.

"We say here, 'As Detroit goes, so goes America. As America goes, so goes the world.' So Detroit is at the epicenter of impacting the entire globe (via the auto industry).

We can't afford to blow this, the stakes are too high.

"When our city was founded in 1701 by Antoine de la Mothe Cadillac, who was a Frenchman. This city is named by a French word – Detroit – which means 'the Straits,' and God knows we're in dire straits right now.

"The reality is, we have an opportunity to do things different."



John Botte Exhibit, NYC

PHOTOS BY DONALD HYATT
TEXT BY SHERRY KRÄUTER

It is now ten years since the horrific attack on New York City. This September 11, I was at John Botte's photographic exhibit. The show was well attended. John's photographs were overwhelming. The 6' x 4' images draw the viewer in, while the utter destruction and raw emotion bleed off these images. One stands transfixed, somber. The show was wake-like, but certainly helpful in the healing. A number of firemen who survived the rescue were there. Overhearing their experience brought tears to my eyes; so many of their co-workers died. I believe John's images will be the definitive 9/11 work.



Signing copies of his book "John Botte: The 9/11 Photographs," which commemorates John's 10th anniversary exhibition in New York.

Center Airbags, Cameras Ready For New Models

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expected to provide benefit in rollovers.

GM analysis of the National Highway Traffic Safety Administration's Fatality Analysis Reporting System database, found that far-side impact crashes, which the front center airbag primarily addresses, accounted for 11 percent of the belted front occupant fatalities in non-rollover impacts between 2004 and 2009 involving 1999 model year or newer vehicles.

These far-side fatalities, where the occupant is on the non-struck side of the vehicle, also represent 29 percent of all the belted front occupant fatalities in side impacts.

"The front center air bag is not required by federal regulation, and no other air bag in passenger vehicles today offers the type of restraint and cushioning this air bag is designed to provide for front occupants," said Scott Thomas, senior staff engineer in GM's advanced restraint systems.

The front center air bag is expected to add to the vehicles' record of third-party crash test performance.

The 2012 model year editions of these midsize crossovers have received five-star Overall and Side Crash safety ratings from NHTSA's New Car Assessment Program, and 2011 Top Safety Picks from the Insurance Institute for Highway Safety.

"The front center airbag has real potential to save lives in side crashes," said Adrian Lund, president of the Insurance Institute for Highway Safety. "GM and Takata are to be commended for taking the lead in this important area."

GM and technology supplier Takata developed the front center air bag over the course of three years, testing many design iterations to achieve packaging, cushioning, and restraint for a variety of crashes and occupant positions.

HFCC Education Pays Off For this Sensor Manager

DEARBORN – Henry Ford Community College (HFCC) Alumnus John Roe, class of 2003, isn't shy when describing HFCC's impact on his career success as a manufacturing engineer.

"I choose the manufacturing field because I was fascinated by how things were made. I attended an open house at HFCC in 1998 and was blown away by (retired HFCC manufacturing professor) Ken Wright's small batch production part demonstrations on the Haas CNC mills and lathes. I registered on the spot for the Manufacturing Program and the rest is history," said Roe, who graduated from HFCC in 2003 with an associate degree in Manufacturing Engineering Technology.

After earning his associate degree in Manufacturing Engineering Technology, he went to work for Sensor Manufacturing Co. in Novi, Mich. and has remained with the company for almost a decade – which speaks volumes, given that Michigan is one of the states hardest hit in this economic recession. Currently, Roe is a general manager, a position he has held since last year. When he first was hired at Sensor, he was a CNC programmer and quickly became the CNC mill department manager.

While working full-time at Sensor, Roe earned his undergraduate degree in Manufacturing Engineering from Lawrence Technological University in Southfield, Mich. in 2010. All of his 62 credits he earned from HFCC transferred seamlessly to Lawrence Tech's Engineering Technology program.

"At Sensor, we manufacture hydraulic pumps and motors for Schlumberger Industries, stress and strain flexures and transducers for the Big 3 – Ford, General Motors, and Chrysler – and trim dies and molds for Lear," said Roe. "The parts we manufacture are one-of-a-kind and difficult to make, but the challenge never makes going to work

dull," he added with a laugh.

Robert Bynum, president and owner of Sensor, couldn't be happier to have Roe on his team.

"John became our defacto CNC department manager. He has grown in his skills and has taken strides to accept more responsibility in the day-to-day operations here. I feel that his time spent at HFCC prepared him well to be a responsible and productive employee at Sensor Manufacturing," he said.

Roe said that the HFCC Manufacturing program "molded me into the manufacturing professional I am today. I am the go-to person at Sensor for machine tooling problems, speed and feed issues and continuous improvement. The core CNC manufacturing courses at HFCC are what helped me fully decide that manufacturing was right for me. The manufacturing department offered the latest cutting-edge Haas CNC milling machines and lathes to learn on at a reasonable cost, tuition-wise."

Roe would not disclose what his annual salary at Sensor is. However, the ballpark estimate of someone with his experience and education is approximately \$60,000 and \$80,000. This includes paid overtime and a yearly performance bonus.

According to Roe, the manufacturing industry is a booming one; there are plenty of job openings in the manufacturing industry – particularly the CNC manufacturing sector – all over the United States, including Michigan.

This is evidenced by the report "The Public Pulse: America's Perception of Manufacturing Today," published by the Deloitte/Manufacturing Institute in 2010.

Each year, approximately eight percent of skilled workers are lost due to retirement, promotion, career changes, disability, and mortality.

As a result, between 20,000 and 25,000 skilled workers are lost, statistics show.



Crash test dummies involved in a side impact collision demonstrate GM's new front center air bag.



The 2012 Terrain exclusively uses a single camera mounted in the windshield to help avoid front-end and lane departure crashes.



GM Executive Director of Vehicle Safety and Crashworthiness Gay Kent introduces the industry's first front center air bag.