

# Ahead of the curve

*Robotics, manufacturing students have promising future as programs expand*



*Grade 12 student Elizabeth Moses works on a robot at Assumption College Catholic High School.*

(Windsor, Ontario, Feb. 29, 2016) – Elizabeth Moses likes to stay ahead of the curve.

A Grade 12 student at Assumption College Catholic High School, Moses decided a couple of years ago to jump in to the robotics program at her high school at a time when not a lot of students – especially girls – were interested in disciplines related to manufacturing.

Born in Sudan, Moses' family came to Canada when she was five years old. She went to Marlborough Public Elementary School and then to Forster Secondary, but decided to come to Assumption a year before that school was scheduled to close.

She started in a construction technology program just to try something different, but was approached by robotics teacher Michael Costello who asked her if she'd be interested in taking his course.

“I didn’t think I was going to like it,” she says. “I didn’t know anything about robotics, or how machines work.”

Throwing caution to the wind, she decided to take the class anyway and learned a great deal about herself as a result.

“At first it was very intimidating,” she says. “I was the only girl, but there are a lot more now. I found out that I can do this, and that I really like it a lot.”

That’s music to the ears of WECDSB Director of Education Paul Picard, who announced last week that the board will expand its course offerings in manufacturing, as well as establish a task force to work with potential industry partners and other key stakeholders who can provide advice and expertise in developing curriculum and providing resources that will help in the development of programming and facilities at Assumption.

That task force will rely heavily on local industry to help understand how to structure programs facilities, and ultimately address a glaring skills gap that still persists in stunting the growth in local manufacturing, said Board Chair Barbara Holland.

“Manufacturing is a sector with some of the highest projections for occupational growth, but local employers are having difficulty in attracting youth to positions that are available,” she said. “The evolution of technology has become vital to the sector, and the use of robotics, machines, and software has created a dramatic shift in the skill sets that employers are looking for.

In the last few years, the board has been seeing a gradual increase in the number of students – especially girls – showing more interest in programs related to those under-represented occupations, according to Susan Friedl, the board’s coordinator of experiential learning and the Ontario Youth Apprenticeship Program (OYAP).

“One of the barriers is just awareness,” she said. “We need to increase their exposure to these programs, even at the elementary level. Initiatives like the First Lego League competitions are really helping. But if they don’t live in a home where their parents are working in industry, or they’re even involved in household mechanical repairs, then they aren’t getting the exposure they need.”

Friedl has been involved in a number of initiatives to improve that exposure, including the recently held Build A Dream event to attract more girls to careers in industry; Manufacturing Day tours to get students out into shops to dispel the myths about trades and technology; and a

***“I found out  
that I can  
do this, and  
that I really  
like it a  
lot.”***

***- Elizabeth  
Moses***

forum that was held in cooperation last year with Workforce Windsor-Essex to update guidance counselors on current labour market trends.

Workforce Windsor-Essex also recently launched WENav, a web-based career counseling program that's promoted on the board's web site. It's designed to guide youth in finding their ideal career pathways by providing them with updated information on labour market trends, while teaching them about the skills and knowledge required for effective career navigation and success.

"We have a role to play in addressing the higher-than-average unemployment rates that have plagued this area for so long by encouraging our students to consider manufacturing as a career option," added Picard, "but also by providing them with the foundation they need to be employable in that sector."

Now that she has that foundation, Moses has applied to get into the robotics program at St. Clair College next year. She likes the fact that robotics has so many sub-disciplines that she can study, from building and programming to pneumatics and even business, but says she would eventually like to work at designing robots. And she also believes that her future prospects are bright.

"I love to work with machines," she says animatedly. "I think there are a lot of opportunities. There aren't a lot of people applying for these kinds of jobs because they don't have the skills."

Her parents, she says, are completely supportive.

"They really love the fact that I'm getting involved with something that I love doing," she said.