

Patti Perspective

April 2015

Greetings!

Patti Engineering has a long history of working with industrial robotics, spanning our 24 years in business. Robotics have come a long way since the early days, and the growth of U.S. factories investing in robotics is predicted to accelerate substantially over the next decade. Patti Engineering is positioning our team to meet the rising demand for robotics programming and integration services, read our feature article for more information.

The Patti Personnel Spotlight is on Electrical Engineer, Brian Parkham. Brian has a passion for robotics and has been spearheading our robotics initiative.

With the Significant Acceleration in the use of Robots in U.S. factories, Patti Engineering is Prepared to Assist

" **More robots coming to U.S. factories,**" Paul Davidson, USA TODAY, February 10, 2015

"**Takeoff in Robotics Will Power the Next Productivity Surge in**



We are hearing about it in the news headlines and we are seeing it on the shop floor - the use of robotics in industrial settings is on the rise. Although industrial robots have been used in factories for decades, advances in vision sensors, gripping systems, and information technology are making robots smarter, easily networked, and immeasurably more useful in a wider range of applications.

As many of our community may already know, some 24 years ago when Patti Engineering was founded, our work focused on the emerging robotics technology in manufacturing. Our first customer was FANUC Robotics. Patti Engineering was contracted by FANUC to work on its customized PLC programs and its proprietary PaintWORKS, Graphic User Interface (GUI) software. Since then, robotic systems and factory automation control systems have continued to play a large role in our continued success.

Over the past year, we have been ramping up our robotic capabilities with more training and certification opportunities for our engineers. We are also investing in a robot for our in-house testing and training. Patti Engineering's Electrical Engineer, Brian Parkham, is spearheading our robotic initiatives. Brian is in our Patti



Personnel spotlight this month; he has an extensive background in robotics. Our goal is to be prepared to help our customers take advantage of the advancement in robotics which offer some of the best opportunities for manufacturers to sharply improve productivity.

Patti Engineering is a certified robotic integrator for Kawasaki and we just recently became a certified COMAU integrator. In addition to our partner's technology, Patti Engineering has completed many successful projects with ABB Robots, FANUC Robots and KUKA Robots. Our areas of expertise and application experience include:

- Assembly

- Material Handling

- Palletizing

- Inspection

- Painting

- Sealing/Dispensing

In the fall Patti Engineering joined the Robotic Industries Association (RIA), a not-for-profit trade association dedicated to improving the regional, national and global competitiveness of the North American manufacturing and service sectors through promotion and enhancement of robotics and related automation. We are in the process of pursuing RIA Certification which provides robot integrators with a way to benchmark against industry best practices and allows robot users to develop a baseline for evaluating robot integrators.

"We strive at Patti Engineering to be a trusted resource to our customers, offering solutions rather than offering engineering service at an hourly rate," commented Sam Hoff, CEO, Patti Engineering. "We have seen the benefits of robotics helping our customers improve efficiency and reduce costs."

Patti Personnel - Brian Parkham



Earning the Patti Personnel spotlight this month is an outstanding Electrical Engineer, Brian Parkham. Brian has been working for Patti Engineering for just shy of a year now and his contribution to the team has been spot-on. As the robotics initiative at our

company has become increasingly important, Brian is using his robotics experience and skill-set to spearhead our growth in this segment! Beyond his engineering capabilities, Brian fits right into the company culture with his pursuit of adventure and fun - from scuba diving to snowmobiling and downhill skiing!

"Brian is a terrific engineer with great customer interface skills and a keen business sense," commented Dave Foster, VP Engineering, Patti Engineering. "In addition, his passion and natural aptitude with robotics is helping us really grow in that direction."

Brian has been instrumental to the success of a number of projects involving robotics, including our Micromatic LLC work at the Honda Anna Engine Plant - which involved new model upgrades to a 14 station/9

robot piston assembly line. He also provided FANUC robot programming support for the ATW Dayton project for Tesla Motors, which was a new line build for gear cases. Brian has special training in FANUC and Stäubli robotics from his time in college at Lake Superior State University (LSSU). He has also completed a FANUC iRVision 3DL vision course, which he took at FANUC. He recently received training on Kawasaki robotics, as well. Overall, he is well-armed to take on the robotics industry!

Brian is from Hubbard Lake, MI and currently lives in the same town as our headquarters - Auburn Hills, MI. Growing up, Brian learned his diligence and desire to be successful from his mother, Patti (funny coincidence!), and father, Gary. His mother is now retired, and his father runs their family business - Parkham's Garage - an auto repair shop. He has a younger brother, Scott, who is studying business at Alpena Community College. Looks like he is taking after his older brother! Brian earned his Associates Degree in Science at Alpena Community College. He then went on to earn his Bachelor's Degree in Electrical Engineering, with a concentration in Robotics & Automation at LSSU.



During his time at LSSU, Brian assisted with the Lake State's Robotic Summer Camps, where high school students had the opportunity to learn about the world of robotics, as well as other STEM field activities. He was responsible for developing multiple robotic demonstrations for their robots; one even included a robot that played Hangman and a high-speed Peg Solitaire game with vision! If you have not gleaned this yet from our spotlight article, Brian is pretty talented.



When Brian is not leading the office in robotics, he enjoys camping and time at the lake. He and his father are both certified scuba divers. This gives them the ability to dive and explore the many wrecks at the Thunder Bay National Marine Sanctuary, which is located close to where he grew up. During Michigan's snowy winter months, Brian takes to his snowmobile and skis. Brian attributes his engineering pursuits in life to

his sophomore and junior years in High School, when he was a member of the Engineering Club. He and his classmates built and competed with underwater remotely operated vehicles (ROV) through the M.A.T.E program. He even plans to build his own underwater ROV in the near future so he can explore and film some of the many wrecks the Great Lakes have to offer.

"What I like best about working at Patti Engineering is the company mentality of doing the project right the first time. As a Patti Engineering employee, we are never pushed to hurry up and just get it working and move on to the next project," explained Brian. "Patti Engineering is committed to making the customer successful and providing them with the best solution possible."



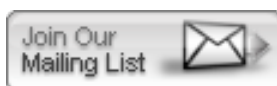
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We work as partners with our clients. When you need an expert to help solve automation challenges, we are here to add value to your solution - enhance efficiency, increase productivity, and work with your team as a trusted resource. Visit our **website** for more information on our areas of expertise, or call us (248)364-3200 for a free initial consultation.

Thank you for your interest in Patti Engineering.

Best regards,

Georgia H. Whalen
Director of Marketing
Patti Engineering





On March 25, Patti Engineering announced details of its successful project at Thermon, an industry innovator in heat tracing technology. Thermon's manufacturing plant is highly automated; at its heart is the Electronic Cross-Linking Facility (ECLF), which needed an upgrade as Siemens was phasing out the Simovert MASTERDRIVES drive family and the company wanted to establish a plan to ensure system longevity.

Read more in the press release

here: <http://pattiengineering.com/newsroom/patti-engineering-upgrades-motion-control-to-double-production-speed/>.

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