

Tuesday, Jun 05, 2018

Senior design project leads to TARDEC job offer

For Alex Dietrich of Macomb, all of the pieces fell into place during his Oakland University experience that eventually led to a **U.S. Army TARDEC** job offer that was waiting for him upon graduation.

While attending a career fair hosted in the O'rena midway through his senior year, Dietrich talked to TARDEC representatives about the senior design project he was working on for them and was offered an electrical engineering job on the spot by a project manager. His specific role and TARDEC project is yet to be determined.

"The way things came together, it relieved a lot of stress I might have had if I was graduating and still trying to find a job," Dietrich said. "There's no doubt my OU education and experiences helped me every step of the way."

"I am proud to tell you Alex's story is not unique," said **Michael A. Latcha, Ph.D.**, associate professor of Mechanical Engineering and senior design project adviser. "Many of our students make an impact on companies through their senior design projects. And, with OU's strong connections in the engineering community, each year we see several examples of stories just like Alex's where students have jobs waiting for them upon graduation."

Coming from nearby Henry Ford II High School, Dietrich originally chose Oakland because it was more affordable than other schools and the idea of being a commuter student appealed to him.

He also learned early on about OU's great reputation in engineering through stories he heard from his aunt who works at the university as executive secretary to the **Dean of the School of Engineering and Computer Science, Louay M. Chamra**.

"I came in and took the core engineering classes of every single type," Dietrich said. "Once I had mechanical engineering, electrical engineering, industrial engineering and computer-based engineering experience, I knew I wanted to pursue electrical. It was one of the courses I got the best grades in and enjoyed most."

However, it would be his project design classes that aided him on the path to employment. Each one built upon lessons he learned from prior projects. He was continually adding to his skill set that would make him marketable as an employee.

Dietrich recounted how he began as a sophomore by working with a group that designed a punching simulator to test punch strength. It was his first real test.

In another memorable assignment, he worked on a team that developed a wireless home security system that would take and send a photo when someone rang the doorbell. His laboratory for that project was the family home.

With the confidence of these early projects under his belt, he connected with Professor Latcha and Professor **Mohamed A. Zohdy, Ph.D.** from the Electrical and Computer Engineering Department, to begin working on the TARDEC project.

Their project consisted of four groups working together to calibrate and design autonomous robotic vehicles that would follow a signal by the leader vehicle at a given distance using a pink ball as a target and a video camera.

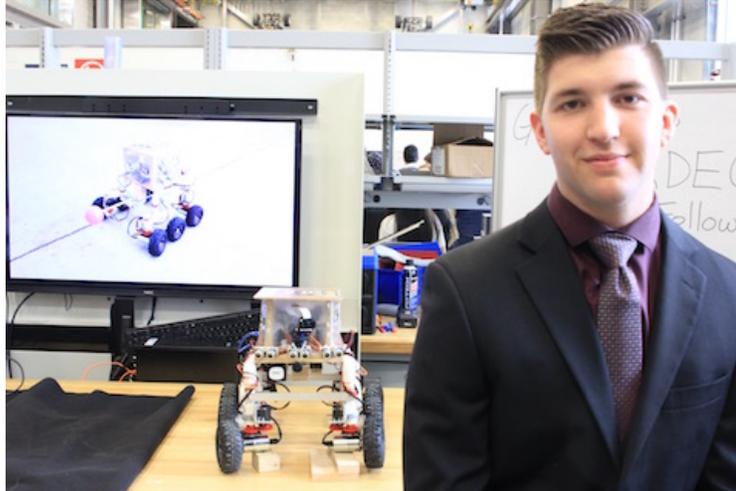
"It was a great team effort and we made it happen," Dietrich said. "Those vehicles ended up following each other really well and Mike Del Rose, a researcher at TARDEC, liked our project. Of course, there were a lot of speed bumps along the way to get to that point, and weather on the day of our demonstration was a big concern, but it all worked out just the way we hoped it would."

As for his future plans, Dietrich recently enjoyed a Las Vegas vacation knowing he will have to roll up his sleeves and prove himself again once he starts his new job. Further down the road, he said he may want to come back to OU for a graduate degree either in engineering or business.

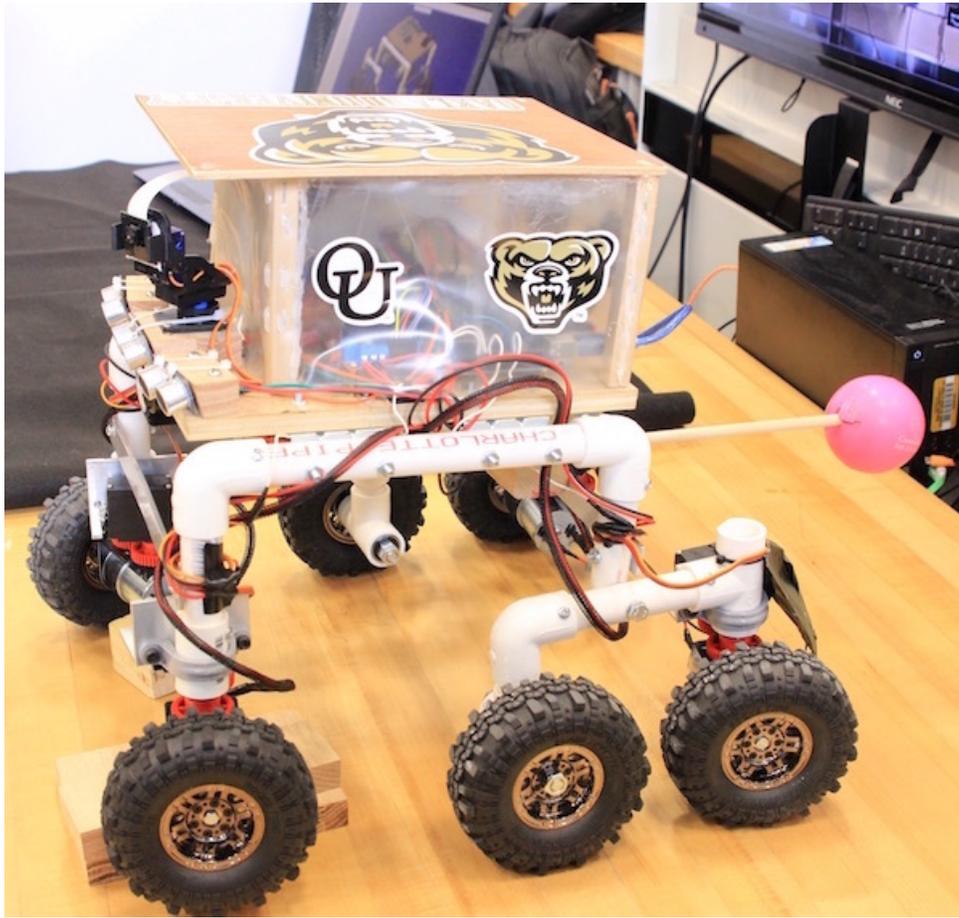
As for his biggest regret, Dietrich said he wishes he would have applied himself more during his freshman year –both academically and by getting more involved on campus.

"I'd tell future OU students that the first year and last year of your engineering experience are the most important, he said.

Luckily for Dietrich, he ended his undergraduate academic career at Oakland on the dean's list and with a TARDEC job offer in hand.



Alex Dietrich's senior design project with TARDEC through the School of Engineering and Computer Science led to a job offer even before he graduated.



Alex Dietrich was part of a team that created this robot for their TARDEC project.