SUCCESS STORY

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Association for Life Sciences Industry

RAD Medical Technologies

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RAD Medical Technologies is a medical device company that designs clever, simple orthopedic patient positioning solutions that provide a better experience for operating room (OR) staff. RAD is working on their debut product, an orthopedic beach chair, that aims to safely position the patient for surgery, improve surgeon access to the joint and repair site, and increase efficiency in the operating room. Developing this product raised the need for some fresh perspectives and some extra sets of hands. With WIL funding, RAD hired two research and development (R&D) interns from the University of Calgary to aid in product development and help them gain hands-on mechanical and biomedical design experience.

Ethan Folliott and Nikki Boag joined the team as mechanical and biomedical engineering students, respectively. Of his experience, Ethan says, "The opportunity to work on a project of this scale with an interdisciplinary team has been an eye-opening experience. Knowledge of different projects and the experience of your peers contribute to a high-functioning team dynamic when designing innovative solutions."

Ethan Folliott

Nikki notes that "this opportunity is truly unique, I have been able to apply myself in industry-specific situations that I would not have been given a chance to do anywhere else. The team and I tackle medical and mechanical problems that aren't present in other industries."

During their work term, Ethan and Nikki have worked in the prototyping and design space all the way from ideation to physical prototypes using technologies and processes mentioned in their academic classes. They are both enthusiastic to stress the importance of the practical experience provided by their WIL experiences. "It's one thing to work with software and a technology like CAD and 3D printing for projects in school, but an experience like this

helps bring a lot of coursework into perspective when those same concepts are directly applied to the work we are doing in product development" says Ethan. Nikki echoes Ethan's sentiment, noting that "taking the theoretical work and being able to apply it to something physical has made a huge difference in my levels of understanding."

One of the technologies they have explored is SLS 3D Printing, a cutting-edge 3D printing technology that has a material catalog ranging from plastics to metals. The rapid prototyping available with these technologies allows designs to be physically tested within a day of being conceptualized. In this, Ethan and Nikki have worked as a team to overcome various design and product challenges. They were able to take complicated problems and distill them into actionable tasks that fit their skill sets, tackle those tasks, and then collaborate on the overall solution effectively and efficiently.

Nikki Boag

Danny Zahynacz, President of RAD, is quick to say that "having interns in the workspace is a win-win, students provide value to the company and they learn career applicable skills at the same time. The nature of a smaller start-up leads to having many roles to fill with a limited number of employees. Ethan and Nikki have stepped up and tackled a wide range of tasks outside of R&D to help in RAD's day-to-day operations and give them exposure to the medical device industry."

We are looking forward to that prototype development – industry keep your eye out!