

## **Intellectual Property and Commercialization Annual Update - July 10, 2024**

### **Improving IP Capacity through Policy Development**

Mohawk College has the following IP related policies: [Intellectual Property and Commercialization Principles Policy](#) and [Copyright Policy](#).

The Intellectual Property and Commercialization Principles Policy in particular works to establish the requirements of CMPF to manage and protect IP, define roles and responsibilities of relevant stakeholders, increase IP capacity through education and awareness resources. Further Mohawk College's Ideaworks is active in sharing and promoting information and educational resources from IPON.

Our approach and mandate are to support innovation in partnership with companies. We will assist companies with their commercialization upon their request. Our position is that the IP typically belongs to the industry partner, as they are best positioned to decide how to handle foreground IP.

### **Case Study: DAZL Innovations Inc.**

DAZL Innovations Inc. partnered with Mohawk College's Additive Manufacturing Innovation Centre (AMIC) for a collaborative research and development project to bridge the gap between their initial prototypes and a finished product for real-world usability. As a result of the project, DAZL Innovations successfully pinpointed the top-performing prototype through rigorous end-user testing, slashed its manufacturing costs, and expedited the launch of its flagship product, The Lifty. DAZL Innovations is poised to release The Lifty by year's end.

The repetitive action of opening plastic medical vial caps using her thumb and forefinger led Laura Bosch, a registered nurse and co-founder of DAZL Innovations Inc., to receive a diagnosis of the painful condition carpal tunnel syndrome. This personal struggle drove her to establish DAZL Innovations Inc. in hopes to reduce the prevalence of carpal tunnel syndrome and repetitive strain injuries within the healthcare industry.

The project's aim was to improve the design of the industry partner's flagship product, the Lifty, by developing an efficient and durable device to remove medical vial caps that would be cost-effective to manufacture.

"We had a handful of initial Lifty prototypes made of carbon fibre-reinforced nylon that were expensive to produce," explained Laura. "In addition, we needed expertise to understand which plastics could be used to create a durable product that could withstand autoclave sterilization in hospital settings. So, we partnered with AMIC leveraging their manufacturing and plastics expertise to design a high-quality and cost-effective product. We explored a range of manufacturing options and created four distinct prototype designs."

During the project, AMIC successfully generated several prototype designs that met their industry partner's requirements and slashed their product manufacturing costs.

"We discovered that the prototypes exhibited remarkable durability during our testing, requiring a significant number of uses to show any signs of wear. So, we placed the prototypes in the hands of potential end users, registered nurses at St. Joseph's Hospital, for their evaluation," elaborated Justin Valenti, Project Manager of Mohawk College's Additive Manufacturing Innovation Centre (AMIC).

The trial not only helped the industry partner to identify the most effective prototype, but it also led Laura to learn more about her potential end users and how many of them suffered from wrist strain conditions.

"Our results showed that 80% of the nurses taking part in the Lifty trial, were experiencing pain when opening caps or they found cap removal difficult prior to using our prototype" remarked Laura.

The industry partner was able to select the best-performing prototype.

Brooklyn Huybens and Max Bellmer, are students who worked on the project. They compared 3D printing technology costs, researched materials and mechanical properties to determine strength, added functionality to the device, and printed and tested various versions of the device before sending them to the industry partner.

This project played a pivotal role in preparing the industry partner for mass production and launching the product by the end of the year.

"This project provided DAZL Innovations with expertise in plastics, 3D printing, and designing Lifty prototypes that were trialed at St. Joseph Hospital," explained Laura. "I find it truly remarkable that there is support available to assist individuals who lack the necessary knowledge and expertise. I encountered a problem and had an idea for a solution, but I would not have been able to launch this product to market without additional assistance."