



digital health circle

the client

HUMAN IN MOTION ROBOTICS

the challenge

DEVELOP A VIABLE PROTOTYPE OF A MOBILITY ASSISTIVE EXOSUIT TO OBTAIN VENTURE FUNDING

Paraplegia and other lower-body mobility disorders affect millions of people, severely limiting one's ability to enjoy free movement. Born in 2016 from the research labs of co-founders Dr. Ed Park and Dr. Siamak Arzanpour at Simon Fraser University, Human in Motion Robotics (HMR) is developing Exomotion, the next generation wearable robotic exoskeleton. HMR's patented exoskeleton technology enables users to stand and walk without need of crutches or an attendant, allowing wheelchair-constrained individuals to regain their mobility and independence.

Creating health technologies requires skilled labour and expensive resources, and Exomotion was no exception. Like many startups, HMR found themselves with the chicken-and-egg problem of needing investment to create the prototype they needed to secure investment. HMR had been using non-dilutive R&D grants to stretch its early financial resources, and although helpful these grants do carry significant limitations. Application processes can be slow and funding amounts relatively modest (< \$100k/yr), which can severely limit already cash-strapped companies. Worse, grants usually can't be used to cover the costs of contracted product development.

Being on a tight timeline, and needing flexible and non-dilutive funding, HMR turned to Digital Health Circle for support. DHC's unique support for health technology developers played an important role in HMR's development of Exomotion. DHC worked with HMR to provide short duration, easily accessible, non-dilutive funding to support contractors working to develop Exomotion. Digital



Health Circle provided matched funding for a 5-month, \$200k project, while also acting as the cost and project management centre for HMR, helping their money go further while relieving some of its operations burdens. Of critical importance to HMR, all intellectual property created through this partnership remained exclusively owned by HMR.

With support from Digital Health Circle, HMR was able to develop their generation 3 prototype, refining the control software, and hardware design. In March 2020 HMR successfully raised an oversubscribed \$2.7M funding round, further advancing the development and deployment of their exoskeleton technology.

HMR is currently completing their first fully integrated Exomotion system in preparation for clinical trials in pursuit of medical device certification. Exomotion is on track for commercial release in 2022 and is expected to have a major impact on the lives of those living with a wide range of mobility challenges.

Digital Health Circle is incredibly proud of HMR's success and we look forward to seeing Exomotion revolutionize the mobility and quality of life of all those impacted from mobility disorders.

\$2.7M

Raised

1

Product
developed

5

Full-time jobs
created in 2020

Learn more and get started

digitalhealthcircle.ca/signup