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InDro Robotics 'Eye in the Sky' Seeks to Save Ironman Lives

Athletes competing in the myriad of Ironmen events around the world are literally putting their lives at risk and InDro Robotics thinks their technology can change that statistic.

It's the swimming portion of the run-bike-swim competition where most medical emergencies occur, despite screening and the vigilance of lifeguards on the water and rescue crews on standby. Most frustrating for emergency medicine experts is they are preventable fatalities, but it is a matter of spotting and intervening with a struggling competitor. Swimmers especially are at risk because it's easy for someone in trouble to simply get lost in the mass of participants and then slip below the water.

In an innovative project, USA Triathlon organizers partnered with InDro Robotics, two universities and four emergency medicine organizations to identify swimmers in trouble during the 2018 competition season. Results of the initial project are expected in 2019. The Ironman Rescue Drone Project (Click Here) could be a giant leap forward for deployment of medic-assist drones at large events.

"We're really excited by this collaboration," says InDro Robotics founder, Philip Reece. "The benefit for stakeholders is to not just save lives during triathlons, but also to see if drone usage at mass gatherings would also be beneficial. We already know drones are relatively inexpensive, easy to deploy and safe. We need to explore all the issues and learn from the data this project provides so we can continue to design and build future iterations and have a positive impact."

From 2006 through 2011, 1.7 participants died for every 100,000 finishers in the more than 1,500 USA Triathlon events held across America, according to one study published in 2015. Also, Minneapolis Heart Institute cardiologist Kevin Harris's study in the Journal of American Medical Association found that in just two years from 2006 through 2008, 14 participants died, all but one while swimming, the other biking.

The technology would scan for swimmers identified as "at risk" and relay real time data on their location and movement - or lack of movement – to a monitoring centre which in turn would co-ordinate with lifeguards on land and on the water during the event.

Other participants include Université Laval, McGill University, Dessercom, Foundation Jacques de Champlain, Chaire de Recherche en Medicine d'Urgence, Urgences Rurales 360 and County of Renfrew Paramedics.