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## SMART RECOVERY



Following an injury sustained during a bike accident, AUT student Arien Hielkema with help from the AUT Design and Textile lab has developed a new smart knee brace designed to capture and analyse movement during recovery. The brace prototype was designed with electro-conductive yarn which when knitted together creates an entirely cohesive and lightweight smart fabric.

“The aim of this project is to understand why adherence rates to prescribed exercises affect the recovery process of injured athletes, with a particular focus on motivational and psychological behaviours through the recovery process,” said Hielkema.

While the device is not intended to replace the role of a physiotherapist, it works to provide an additional rehabilitation tool which can be used to monitor form and help with motivation during the recovery process.

Hielkema said the brace will enhance engagement and accuracy during recovery and helps shift the mindset from a tedious inconvenience to a productive challenge.