

MaXm Skate.

Maximising knee rehabilitation



Overview.

With no structured rehabilitation program to accelerate recovery following knee reconstruction, prominent Adelaide Orthopaedic Surgeon, Dr. Matthew Liptak approached MotherSON with a new concept.

The MaXm Skate is a fully integrated rehabilitation program designed to maximise function, reduce pain and improve outcomes following knee reconstruction surgery.

The patient's foot is placed in the Skate, removing all load-bearing from the knee. Bluetooth sensors are connected to the knee and shin to track mobility during rehabilitation exercise. Data from the sensors is shared with the patient and clinician via the associated app.

Expertise.

MotherSON worked with Dr. Liptak to understand his product requirements and delivered design for manufacture solutions combining volume manufacturing with user needs.

We supported product evolution using Catia software to design, analyse and manage the transformation. Prototype development included creating the mould, component sourcing, testing and evaluation. MotherSON completed lab verification and achieved final assembly and packaging on time and within budget.

We're proud to be part of our customers success and applied capabilities in Finite Element Analysis (FEA) to incorporate complicated geometries, loadings and materials to help make Dr. Liptak's vision become a reality.

Outcome.

The MaXm Skate is a re-useable device that helps clinicians better manage patient recovery following knee reconstruction.

Currently a prototype used in clinical trials, the MaXm Skate is manually assembled in a MotherSON manufacturing cell, with the ability to scale up when required.

MotherSON provides value during clinical trials, continuing the design and manufacture process with customer needs in mind.

Contact us for more information.