SEAMLESS SAFETY

A New Era in Knee Slider Attachment

‘Sliders’ are plastic pucks attached to the leather suit of a motorcycle racer, whose knees come in active contact with the tarmac during cornering.
The exact location of these contact points are influenced by the rider’s body position, which is highly personal for each rider due to their anthropometry and riding techniques and styles.

This new slider attachment system called the ‘Damen Grid System’ is tailored to the exact active tarmac contact points of the rider, by 3D-scanning the rider in their personally used body positions.

The system and its locking mechanism were designed to address the shortcomings of traditional ly used Velcro attachment systems, by providing a more secure, precise and consistent placement solution.

By ensuring that the slider is always positioned in the optimal spot, it not only enhances rider safety but also protects the integrity of the leather suit, reducing wear and tear caused by incorrect placement or detachment.
The system integrates effortlessly with existing suits, maintaining both functionality and improving aesthetics and aerodynamics, while also increasing the overall durability and reliability of the racing gear.

This innovation aims to give riders confidence in their equipment, allowing them to focus on performance without worrying about potential gear failures.

Nola Houtepen
Tailoring external protection for active tarmac contact points in motorcycle circuit racing
August 29, 2024
MSc Integrated Product Design

Committee Dr. ir. Marijke Dekker
Ir. Anna Ruiter
Company Damen Motorkleding

TU Delft

Faculty of Industrial Design Engineering

Delft University of Technology