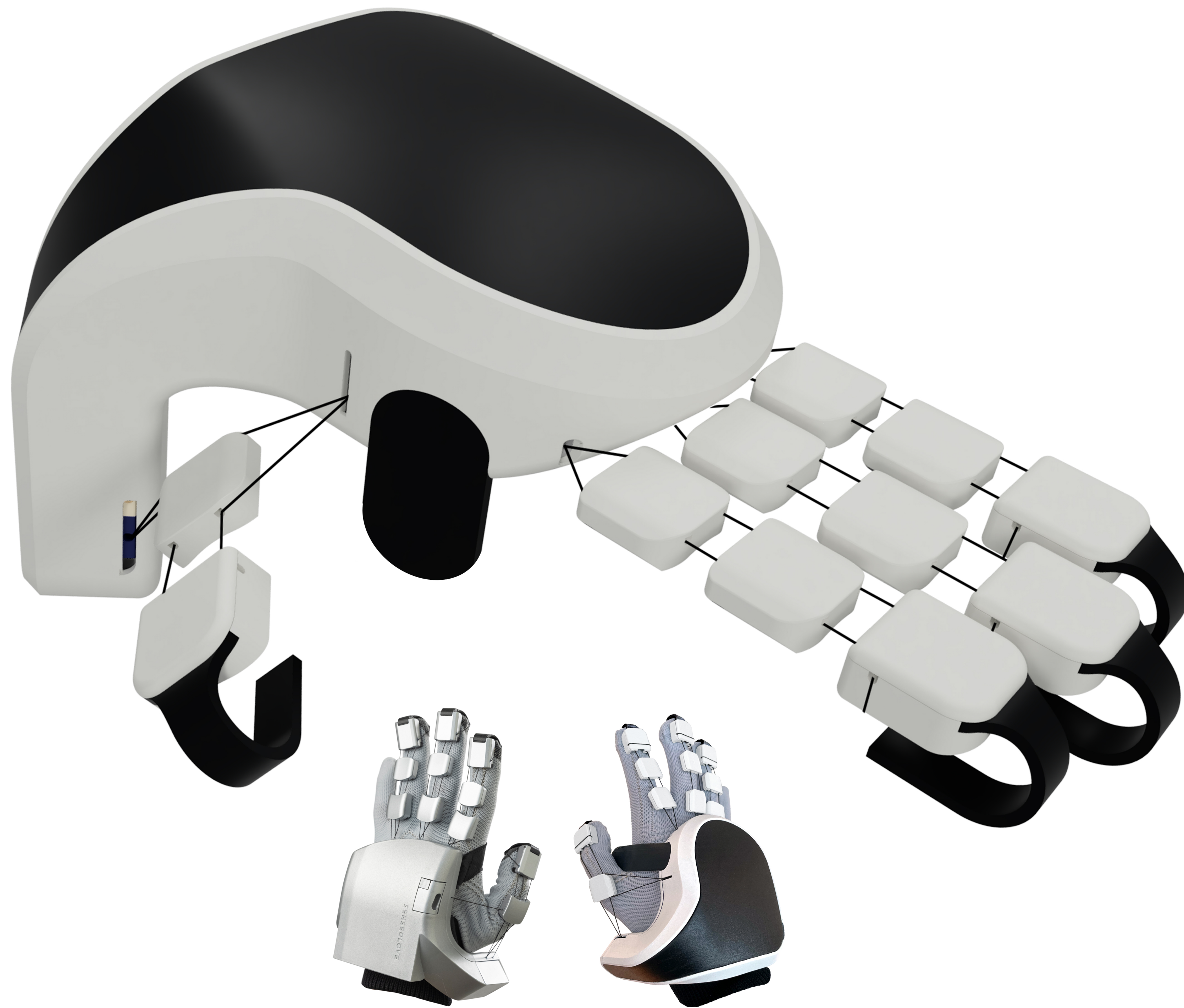
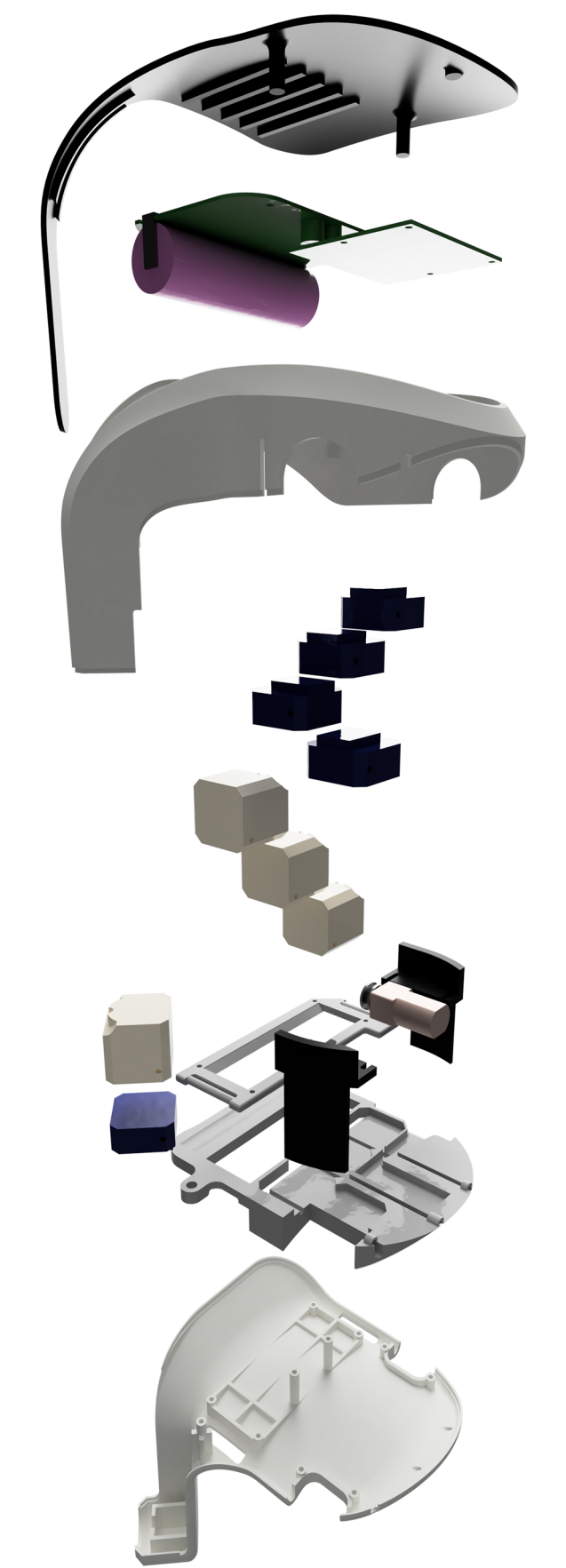


Redesigning a Haptic Glove for New Features and Improved Assembly



Nova is SenseGlove's flagship product and aims to deliver intuitive and immersive interaction in virtual reality training at a low barrier of entry. It uses a patented system of cables, springs and brakes to apply force feedback to the fingers, while vibrotactile sensations at the fingertips simulate touch and texture. Driven by a desire to implement new features, communicate a new branding direction and increase production rates while maintaining quality, SenseGlove requested a full redesign of Nova's enclosure with a focus on improving assembly time.

By analysing Nova's original assembly process, identifying improvement points and implementing principles of Poka Yoke and DFA, a new internal configuration and enclosure for Nova were developed with an optimized assembly process. Through part count minimization, improvements to assembly logic and reduction of the risks of human error, Nova 2's assembly time has been reduced to an estimated 53% of the original. Additionally, new features and a refined aesthetic direction have been integrated to ensure Nova 2 offers a whole new experience.



Joris de Vries
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13 February 2023
Integrated Product Design

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Company SenseGlove

**TU Delft**