

## THE BRIEF

Faraday Wheelchair Innovations Ltd was founded by Martin Beddis in 2020. Having been a wheelchair user for over 10 years, he wanted to help less mobile people access good and affordable wheelchairs. Faraday innovates creative wheelchairs through creating prototypes to test viability, stability and aesthetics. Their lightweight yet super strong chairs combine art and science to create value for mobility needs.

Faraday Wheelchairs are working on a new and improved wheelchair prototype. This new construct could benefit people in need, improving their day to day comfort by using this wheelchair. The new design would allow additional adjustments to be made which would allow the wheelchair to be used and be beneficial to a wider range of people. As it is an improved design of a wheelchair, visual representation is crucial to communicate with clients to promote the new technology. Therefore, Faraday Wheelchairs were looking into how they could visualize their new concept, showcase people its capabilities and how it could benefit people in need.

## THE APPROACH

Faraday Wheelchairs shared their ideas, previous designs and examples of existing wheelchair parts with STFC developers. The developers were able to create a CAD design that represented the vision Faraday Wheelchair had. The visualization showcased the wheelchairs capabilities of movable parts and its design, portraying each adjustable technology so that the viewer can see all of the personalized possibilities that are available with this design. Additionally, a user guide example was created where you can see the wheelchair design being used in real life application. In the representation a person disassembles the wheelchair to transfer it into a vehicles passenger's seat.

## THE BENEFITS

Faraway Wheelchairs now has a video of their new technology that showcases in detail its capabilities. This is now used to communicate with clients and used for further development and manufacturing.

*"This visualisation by STFC developers has given Faraday Wheelchairs the opportunity to show the design, modification and adjustments of our wheelchairs. This will contribute to the creation of the user-centric wheelchairs that focus on mobility, comfort, and inclusivity for wheelchair users."*

- Martin Beddis, Founder and Managing Director of Faraday Wheelchairs

