

Meeting the automotive industry's high standards

HOW TO GET ACCURATE DATA FOR ANALYSIS FROM A CAR INTERIOR



The flexibility of a laser scanner is essential when scanning a car seat in relation to the car interior. The REVscan™ showed great results during a task done on site at a renowned car seat manufacturer's plant. The challenge was to scan the entire seat, door, roof and dash in relation to one another for analysis purposes.

The seat and the car interior were digitized in one single scan. The accuracy of the STL file created by the REVscan is essential and useful because the standards of the analysis required by the automotive industry are very high. The data acquired was used to do many tests including quality control of the fabric and the foam inserts.

This was possible mainly because the REVscan does not require big and complex tracking devices. The possibility to scan the car interior, the seat and the dash in relation to each other was not limited by movements in the part or the scanning device. All parts of the car were scanned as they were found at their respective original place inside the car. Nothing needed to be move or taken out of the car.

VxScan™, the software that powers the REVscan, is compatible with many software packages and it is fully integrated into Geomagic. The STL file created by the REVscan can be transferred to any CAD or FEA software for analysis. The car seat manufacturer was also able to perform curvatures analysis, H-Point audits as well as ergonomic testing. This particular car seat manufacturer had the need to study the space left in the car around a passenger seating in any possible position.

At different steps in the design process, it is essential to have a scanning unit like the REVscan, which is capable to either scan a single unit for prototyping or a sample of the seats for quality control inspection during the production process.

To accelerate the process, our scanning team developed a tool to help them scan many seats rapidly, since it is possible to affix targets on a separate grid. This grid can easily be cut and placed over the seat and quickly moved from one seat to another. The time to set up the car and seat went down from 30 minutes to just 10 minutes. Versatile and easy to use, the REVscan laser scanner is an excellent investment for automotive companies, since it allows for time savings and speeds up processes.



Without a doubt, the REVscan is the perfect tool for analysis in the development stages, for quality inspection and in production environments.



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