

Style and power: a new three-wheeler is born

Cirbin Motors is a young and promising Quebec-based company specializing in the development and manufacturing of three-wheeled roadster-type recreational vehicles that took up on the challenge of entering the ranks of this emerging market. The company manufactures vehicles that cannot be driven during the winter season; consequently, the showcases, booking and ordering processes are held during the fall, for shipping in the following spring.

THE CHALLENGE

With respect to the development of the VT-ROD prototype and the CIRBIN V13R vehicle, Cirbin was looking for a time saving scanning solution. Indeed, the company had no choice but to keep to a very tight timeframe dictated by the requirements of the specialized market segment that it wanted to break into. While attending a major american tradeshow, Cirbin's management team members came across the REVscan, a revolutionary hand-held self-positioning laser scanner. After meeting with Creaform's representatives and discussing their needs with them, the engineers from Cirbin decided to turn to the expertise of this Quebec-based company specializing in 3D scanning to help them carry out their project.



scanning the surfaces, the seats and other components of the car, in order to create CAD files that would eventually be used for the development and large-scale production of the vehicle's final version: the V13R.

Cirbin's engineers needed the .STL files of the Harley Davidson engine chosen to power this marvel, in order to measure its overall dimensions in the chassis and to get the precise position of the car's various components' interfaces (body, chassis, exhaust system, air intakes, etc.) in relation to the engine. To create them, the engine was subsequently shipped to Creaform's workshop to be scanned with the REVscan.

TWICE AS FAST

Scanning an engine usually proves to be a large-scale project, given the high complexity of the surfaces to be scanned and the huge amount of data that must be collected and processed. In Cirbin's case, Creaform's expertise combined with the powerful features of the REVscan have contributed to the

quick wrap-up of the project and allowed for a gain in time of about 50% compared to conventional scanning technologies.

Besides, the data collected during the scanning sessions have been used to create realistic renderings of the Harley Davidson engine once integrated into the chassis. Among other things, these files have been used to develop the marketing campaign for Cirbin's new V13R vehicle.

The tremendous gain in time yielded by the REVscan laser scanner innovative technology has enabled Cirbin to speed up the development process of both the prototype and the final product. As a matter of fact, the body and engine modelling processes would have been much longer and tedious without the technology punch that this portable and self-positioning laser scanner brought to the table. In the end, the company succeeded in meeting its deadlines and was able to introduce its product with the right timing and to take advantage of the momentum in this narrow market slot.

