

AUTO MO TIVE

McLaren leverages VR to speed design development

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McLaren's designers are now using VR to sketch. Image credit: McLaren

By SARAH JONES

British automaker McLaren is streamlining the design process for its supercars and sports cars through virtual reality.



Working with software startup Vector Suite, McLaren has developed a bespoke tool that allows its designers to simultaneously sketch by hand and model their design in 3D. While a number of luxury brands have incorporated VR into their consumer-facing marketing tactics, the technology is also finding a place behind-the-scenes, helping companies facilitate tasks.

"Using VR allows McLaren to use 2D and 3D design to production," said Lauren Fix, automotive expert, the Car Coach, Lancaster, NY. "This is a quicker more efficient process and tune the car for customers.

"This is the future of car design."

Ms. Fix is not affiliated with McLaren, but agreed to comment as an industry expert. McLaren was reached for comment.

Drawing on technology

McLaren has been using VR internally for a number of years, such as for offering real-time car configuration, but the technology had not been used for design.

Filling this "missing link" is a partnership with Vector Suite, which developed a design tool to fit McLaren's needs. The automaker sought technology that would help it realize a design idea into a 3D model in less time.

Typically, the process behind creating a McLaren car would start with two to three weeks of 2D sketching, as designers drew around specifications such as the radiator position or suspension. Then the strongest concepts would be turned into 3D models, at which point it would be easier to see what would or would not work.

Through the technology developed by Vector Suite, designers can import engineering specifications such as engine location or sight lines and then draw over the top of set guidelines, or hard points. With key parts of the car more visible in the sketches, it also simplifies the coordination with engineers.

Designers can sketch in both 2D and 3D, allowing them flexibility as they bring their concept to life.

While incorporating technology, McLaren stresses that it is a combination of innovation and craftsmanship that goes into its cars, making the human touch a key component of development. The designer is still drawing a line, but he can more easily and efficiently tweak his sketch to perfect it.

How McLaren Automotive uses virtual reality to design its cars

McLaren is attempting to make 15 new models and derivatives by 2022 as part of its Track22 plan (see story). As an independent automaker without the resources of a big group behind it, McLaren sees its VR technology as a means to help it reach its goal and be more competitive.

Innovative approach

Technology has been changing how auto manufacturers bring their vehicles from concept to consumer.

Jaguar skipped physical prototyping for the aerodynamic engineering phase of its XE development. Per the Financial Times, the automaker is looking to avoid physical prototyping during early stages of development.

Technology is also impacting other aspects of automakers' operations.

German automaker Porsche's U.S. importer is using augmented reality to aid remote assistance for its service technicians.

Porsche Cars North America's "Tech Live Look" employs smart glasses with a built-in camera and LED light, allowing workers to take and share images and video from their perspective. While AR has been incorporated into consumer-facing experiences, the technology is also finding a place behind-the-scenes (see story).

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