



Winner : Module



BMW i8 Roadster 3D Printed Bracket

For the first time ever, a metal 3D-printed part is used in a production series vehicle. The 2018 BMW i8 Roadster component proves its viability by being technically sensible and cost effective. The 3D-printed bracket, which is 44% lighter than the baseline, attaches the convertible roof-cover and enables it to fold and unfold over the vehicle. 3D-printing improved the bracket's stiffness tenfold over an injection-molded version. The optimized bracket supports the roof-cover, which is many times heavier than the bracket itself, and successfully keeps displacements to a minimum to prevent the cover from collapsing during the opening process.

Category:
Module

Application:
2018 BMW i8 Roadster

Weight Savings:
44%
Lighter than previous component

Methodology:
Manufacturing Process

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