ENLIGHTEN
AWARD 2017
PRESENTED BY ALTAIR

Altair

SOUEAST

Soueast Motor
2016 Soueast DX3

Under constraints of the existing body structure and material of the DX3, global lightweight thinking was required to reduce its weight. To simplify the process, a 1D model replaced a finite element model in the body-in-white simulation, resulting in a body structure that is 7.3% lighter. In addition, each bracket in the suspension system was analyzed independently using topology optimization, and cast-iron was replaced with aluminum alloy to provide 63% weight savings,

Category:
Full Vehicle

Application:
2016 Soueast DX3

Weight Savings:
23 kg
lighter than the baseline design

Methodology:
Design Optimization

Presented in partnership with:

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