Corvette Daytona Prototype Topology

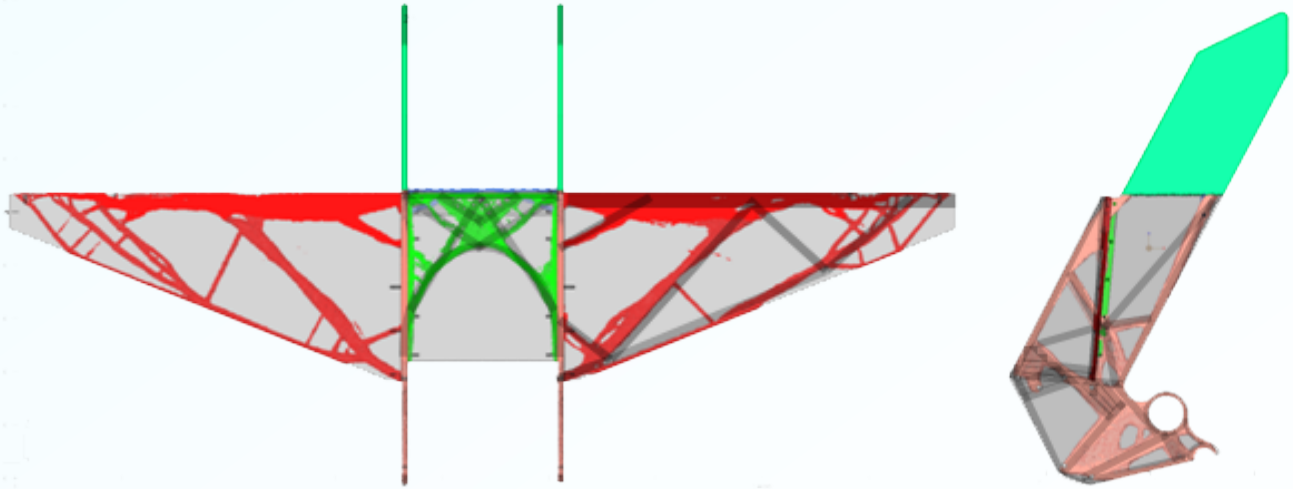
Pratt & Miller Racing uses VR&D Genesis Topology Optimization to reduce the weight of the Corvette prototype wing/body (tail frame) without compromising structural integrity.

Corvette Daytona Prototype
Designed and built: Pratt & Miller

Genesis Optimized Tail Frame

"It's safe to say that Genesis optimization has quickly become a standard step in the majority of critical Pratt & Miller designs" – Pratt & Miller Engineering

Corvette Daytona Prototype Topology



- The available design space (i.e. topology region) is shown in grey
- Topology Optimization migrates the specified amount of mass to the stiffest configuration while maintaining specified design constraints
- Load path interpretations are overlaid by the analyst as translucent black bars

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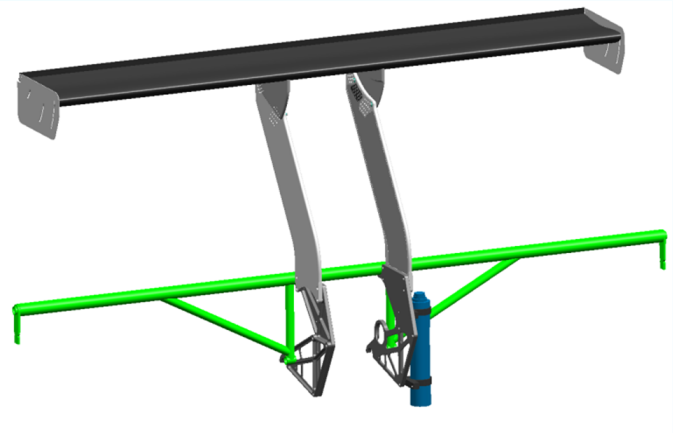
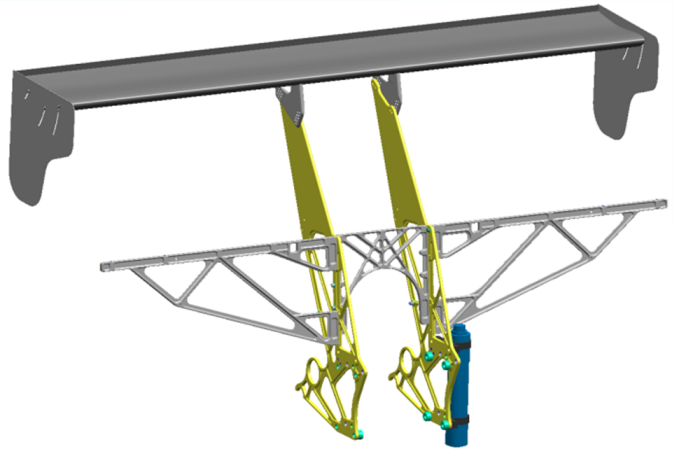


Previous Tail Frame Structure



Genesis Optimized Tail Frame Structure

The Genesis Optimized Tail Frame:

is 33% lighter, and

surpassed Pratt & Millers stiffness and strength requirements.

"Genesis has become an invaluable tool that regularly allows us to cut roughly 30% of the weight out of existing competitive designs without sacrificing the stiffness and strength endurance racing requires" – Pratt & Miller Engineering

Corvette Daytona Prototype
Final Tail Frame