Optimization of Disk Brake Caliper stiffness
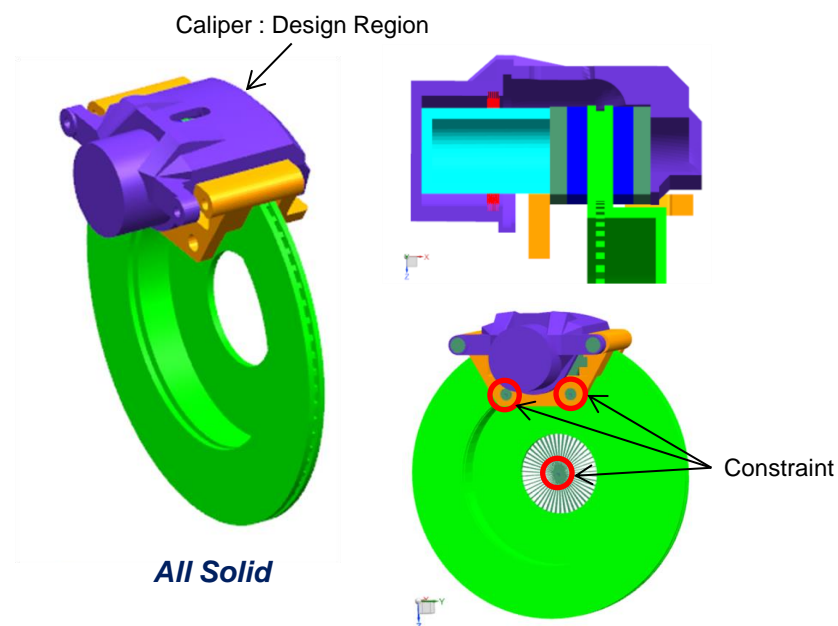
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- Overview -

Brake drag is a common challenge in brake design, and one contributing factor is the stiffness of the caliper.
Determine a shape that enhances the stiffness (eigenvalues) of the caliper, by using Non-parametric Shape Optimization.
The model utilized in this case is an assembly model.

*Non-parametric Shape Optimization:Determines the shape by adjusting the nodes of the FEM model

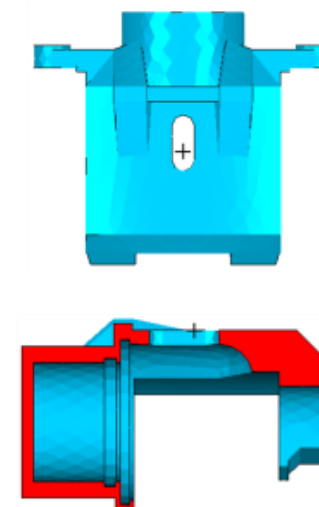## - Non-parametric Shape Optimization -

● **Analysis Model**

Caliper : Design Region

Constraint

All Solid

● **Requirements**

Maintain Mass
Natural Frequency : 3modes
Shape Restriction

mode	Initial	Reqs		Result
1	434Hz	460Hz		460Hz
4	721Hz	750Hz		750Hz
6	1060Hz	1120Hz		1120Hz

● **Initial Model**

● **Result Model**

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