Orbitless

Client

Orbitless Drives Inc., created Orbitless™, a novel fixed ratio epicyclic geared system that aims to be quieter and more efficient than a conventional planetary system.

Challenge

To prove the viability of a novel gearing geometry with systems designed only for Planetary and Parallel-Axis drives. Orbitless needed a partner with the tool and motivation to adapt its platform.

Solution

Applying the advanced multi-physics simulation of Romax to the complete system, a virtual prototype and a physical prototype are being developed aimed at confirming the Orbitless drives' low NVH and high efficiency properties based on the targets and constraints of the automotive world.

Benefits

From methodical conceptual architecture selection to detailed design and analysis, the collaboration has applied Romax's world leading approach to virtual design to Orbitless providing unprecedented understanding of the Orbitless system and optimisation of the arising design.

> **Working with the Romax team, the Romax software has provided us with new technical insights and optimization opportunities for our innovative Orbitless Drive that would not have otherwise been possible."**
>
> **Robert Eisses,**
> CEO of Orbitless

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Romax, part of Hexagon's Manufacturing Intelligence division, provides world-leading solutions for the design, analysis, testing and manufacture of gearboxes, drivetrains and bearings. Learn more at romaxtech.com. Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter.

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