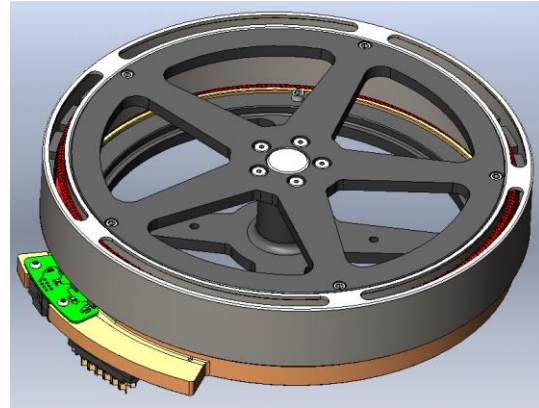


## The ThinGap Motor - Features and Applications

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ThinGap was founded in 2001 as an R&D organization focused on solving the most difficult motor design challenges. We gained a reputation as specialists in design of high power density motors specifically configured to meet stringent space and weight requirements. Our portfolio includes over 100 custom motor designs for the most challenging applications. In 2012 ThinGap expanded to incorporate our proprietary technology and engineering expertise into commercial markets and became more product focused.



ThinGap offers highly efficient motors and generators with previously unattainable power density. They directly integrate with your system to save space, weight and parts count. Distinguishing features of the ThinGap motor technology include:

- Lightweight motors with industry leading power-to-weight and torque-to-weight ratios
- Excellent velocity smoothness with zero cogging torque
- Brushless DC or synchronous AC operation
- High system efficiency
- Excellent velocity smoothness with True-Zero™ Zero Cogging Torque
- Frameless motors enable direct integration saving space and system components

ThinGap motors have high rotor pole counts, larger diameters, and superior cooling relative to their conventional BLDC counterparts. These features result in a variety of BLDC ring motor options with power-to-weight and torque-to-weight ratios exceeding those of a comparable power conventional BLDC motor.

ThinGap motors offer unsurpassed mechanical design flexibility with an open design platform including both the motor through hole and customizable motor components. This gives engineers the flexibility to achieve a high level of integration between the motor and their system with ample opportunities for customization.

Electromechanical product design utilizing ThinGap ring motors benefits from a variety of opportunities to directly incorporate the products rotating mechanisms with the motor rotor. ThinGap customers include optical scanning system manufacturers that directly integrate optics with the motor rotor, pump manufacturers that are able to eliminate redundant bearing sets while directly driving the pump, and UAV manufacturers that integrate the motor rotor with the vehicle propulsor. The ring motor is an enabling technology for innovative mechanical configurations and system designs with a multitude of markets and applications that benefit from use of the technology.