

PRECIPART + AEROSPACE

PROVEN PERFORMANCE IN MISSION-CRITICAL MOTION CONTROL



The Embraer Legacy 500 is the first full fly-by-wire midsize business jet. Precipart's engineering team worked with the system integrator on the design and integration of the flight control actuation system, designing an angled bevel gearbox that drives the business jet's wing flaps.

It was a challenge for the system integrator to design an electromechanical actuator for the wing flaps versus the typical hydraulic actuated design, but Precipart was able to provide guidance on the angled bevel gearbox design including the choice of bevel type, advanced material selection for weight-performance optimization, backlash and overall lifecycle testing and analysis. Precipart manufactures the four gearboxes that drive the flaperon and control actuation system on the Embraer Legacy 500 aircraft which made its first flight in November 2012.