At Collins Aerospace, we bring more than 50 years of flight control experience to customers. We developed the first in-service commercial actuator technologies for fly-by-wire, electro-hydrostatic actuator (EHA) and electrical back-up hydraulic actuator (EBHA).

We have over 10 years of in-service experience supplying EHAs and EBHAs and have introduced SMART actuator technology on recent platforms.

Collins Aerospace continues to invest heavily in research and development for more advanced machining and manufacturing solutions.

We have a large product portfolio supporting both commercial and military aircraft. We also have custom-made test vertical system integration and iron bird capabilities.

**PRIMARY – FIXED-WING ACTUATION SYSTEMS**

**SAVE WEIGHT, LOWER COSTS**

**KEY FEATURES AND BENEFITS**

- Weight savings from product performance with a redundancy of moving parts
- Enhanced safety due to increased reliability in highly demanding conditions/environments
- Lower operating life-cycle costs and reduced maintenance costs from increased reliability
Collins Aerospace has a large product portfolio created over a long heritage of hydraulic, mechanical and electro-mechanical solutions. We have more than 10 billion flight hours of experience with fly-by-wire actuation systems.

Fly-by-wire solutions are controlled by servo-valves or direct-drive valves. Fly-by-wire uses advanced technology for primary flight control actuators used on a range of aircraft – from large commercial, regional and business jets to military fixed-wing platforms.

### 10+ billion flight hours of experience

**Primary – fixed-wing actuation systems**
- Traditional hydraulic actuator
- Electric backup hydraulic actuator
- Electro-hydrostatic actuator
- Flight controls electronic module
- Electro-mechanical actuator (direct drive)
- Electro-mechanical actuator

**Primary – rotorcraft**
- Main rotor actuator
- Tail rotor actuator

**THSA/HSTA**
- Trimammable horizontal stabilizer actuator

**High lift**
- Power drive unit
- Wing tip brake
- Flap and slat actuators
- Transmission shafts
- Gearbox
- Electronics and lever

**Nacelle actuation**
- Thrust reverser actuation system
- Power door opening system

**Composites**
- Transmission shafts
- Fuel pipes
- Fuel and hydraulic isolators
- Tie rods and struts

**Utility actuation**
- Weapon bay door drive system
- Wing fold/rotate
- Refuel probe actuator
- Canopy actuator

**Missile actuation**
- Control actuation system
- Thrust vector actuator

**Aftermarket**
- 24/7/365 customer support

**Anti-ice valves**
- Butterfly
- In-line poppet
- Pressure regulating
- Engine bleed

**OTHER ACTUATION SYSTEMS CAPABILITIES**

- Transmission shafts
- Fuel pipes
- Fuel and hydraulic isolators
- Tie rods and struts
- Weapon bay door drive system
- Wing fold/rotate
- Refuel probe actuator
- Canopy actuator
- Control actuation system
- Thrust vector actuator
- 24/7/365 customer support