### TECHNOLOGY TO MAKE CLEAN AVIATION A REALITY

### **Electrifying Aviation:**

Next generation electric aircraft are paving the way to cleaner skies and driving innovation in Flight Control Systems.

#### **Architectures:**

The extensive proliferation of distributed control electronics in next-generation aircraft demands innovative fly-by-wire system architectures.

### **Computers:**

Complex architectures demand scalable and resilient computational solutions that can be tailored to suit each unique aircraft configuration.

#### **EM Actuation:**

Flight and propulsion control actuators must be powered by electricity and match the functionality and safety features of their hydraulic counterparts.



## EXPANDING THE MOST POWERFUL FLIGHT CONTROL TEAM IN THE INDUSTRY

For over thirty years, Hummingbird engineers have been at the forefront of aviation technology. Hailing from Tier 1 suppliers, these industry luminaries converged at Hummingbird to create the most formidable flight control engineering team imaginable.

Their expertise permeates every aspect of fly-by-wire innovation in service today. From concept to execution, their fingerprints are indelibly etched on the cutting edge of aerospace advancement.

Now, this powerhouse team is at your disposal. Their mission? To fortify your Intellectual Property investment and help you launch the next era in aviation technology.

### For Further Information:

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### HUMMINGBIRD AERO INTERNATIONAL

### FLIGHT CONTROL SYSTEMS

PROOF OF CONCEPT



RAPID

**ITERATION** 

CERT

### UNLOCK YOUR AIRCRAFT VISION

IDEA

PROVIDING EXPERT ENGINEERING SOLUTIONS



### **INSIGHTS**

#### **Intellectual Property:**

In the fiercely competitive aviation industry, securing unique Intellectual Property is paramount for every aircraft manufacturer. Enter Hummingbird Aero, empowering companies to craft essential elements of their intellectual property portfolio.

#### **Certification:**

In the aviation world, certification is the gateway to market success. With a wealth of experience in certification programs, Hummingbird has honed the resources and processes necessary to expertly navigate the certification journey, ensuring predictable outcomes.

### **Supply Chain:**

Hummingbird has experienced first-hand the challenges of finding equipment manufacturers. In a proactive move, we've initiated an internal R&D project to establish our own in-house supply chain and manufacturing capability, clearing the path to market for our customers.

# HUMMINGBIRD RCOTS RAPIDLY CONFIGURABLE OFF-THE-SHELF



### **FBW Architectures:**

Hummingbird's two-channel FBW architecture ensures full functionality after any two or more simultaneous failures. It meets the certification standards of all agencies while minimizing development and production costs.

- Proven Components and Supply Chain
- Modular Pre-Existing Designs and Certification Artifacts
- Qualification by Similarity Avoids Need for Extensive Testing
- Scalable Mechanical Components, Electronics and Software



# CONFIGURABLE ACTUATION:

- Any Level of Redundancy
- Jam Tolerance
- Multiple Load-path



### **Computers:**

Due to the inherent variability in aircraft configurations, a one-size-fits-all computer design falls short. Hummingbird has developed a rapidly configurable computer architecture to facilitate tailoring to diverse sets of requirements.