Wind Tunnel

Industry: Aerospace

Summary

Customer Need / Challenge

- A major aerospace company was developing a new airplane and needed to test their scaled model for aerodynamics in a wind tunnel, by measuring loads created by lift and drag.

Interface Solution

- A Model 6A154 6-Axis Load Cell was mounted in the floor of the wind tunnel, and connected to the scaled model by a “stalk”. A Model BX8 was connected to the sensor to collect data.

Results

- The company analyzed the collected data and made the necessary adjustments in their design to improve the aerodynamics of their theoretical airplane models.

Materials

Interface Products

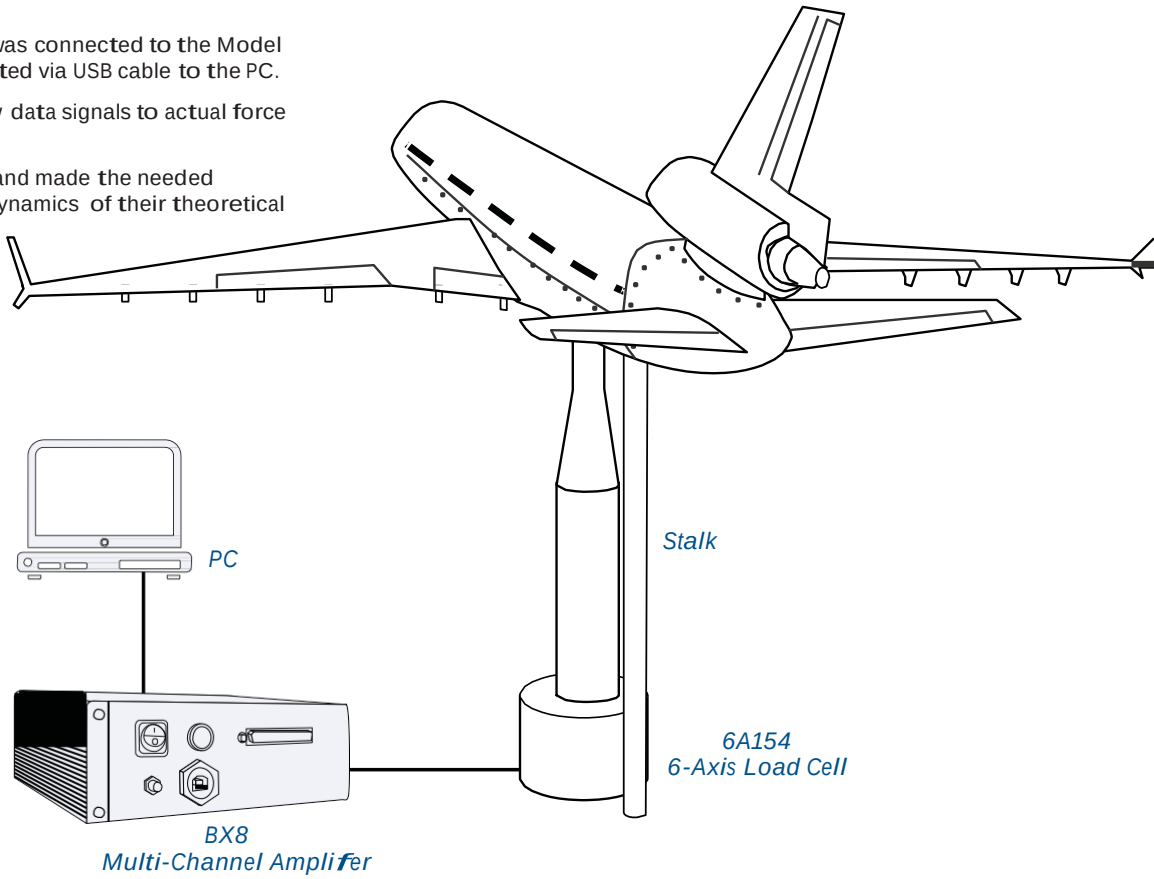
- Model 6A154A - 50 N / 5 Nm
- Model BX8 Multi-Channel Amplifier
- GSV-MULTI Software

Additional Materials

- Wind Tunnel
- "Stalk" to mount scaled model
- PC for data logging and analysis

How It Works

1. The wind tunnel blew air over the scaled model creating lift and drag, which was measured and compared to the theoretical airplane models.
2. The output of the 6-Axis sensor was connected to the Model BX8 Amplifier, which was connected via USB cable to the PC.
3. Software in the PC converted raw data signals to actual force and torque values at the "stalk".
4. The customer analysed the data and made the needed corrections to improve the aerodynamics of their theoretical airplane models.



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