

Team: **synclink**



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About the Sponsor

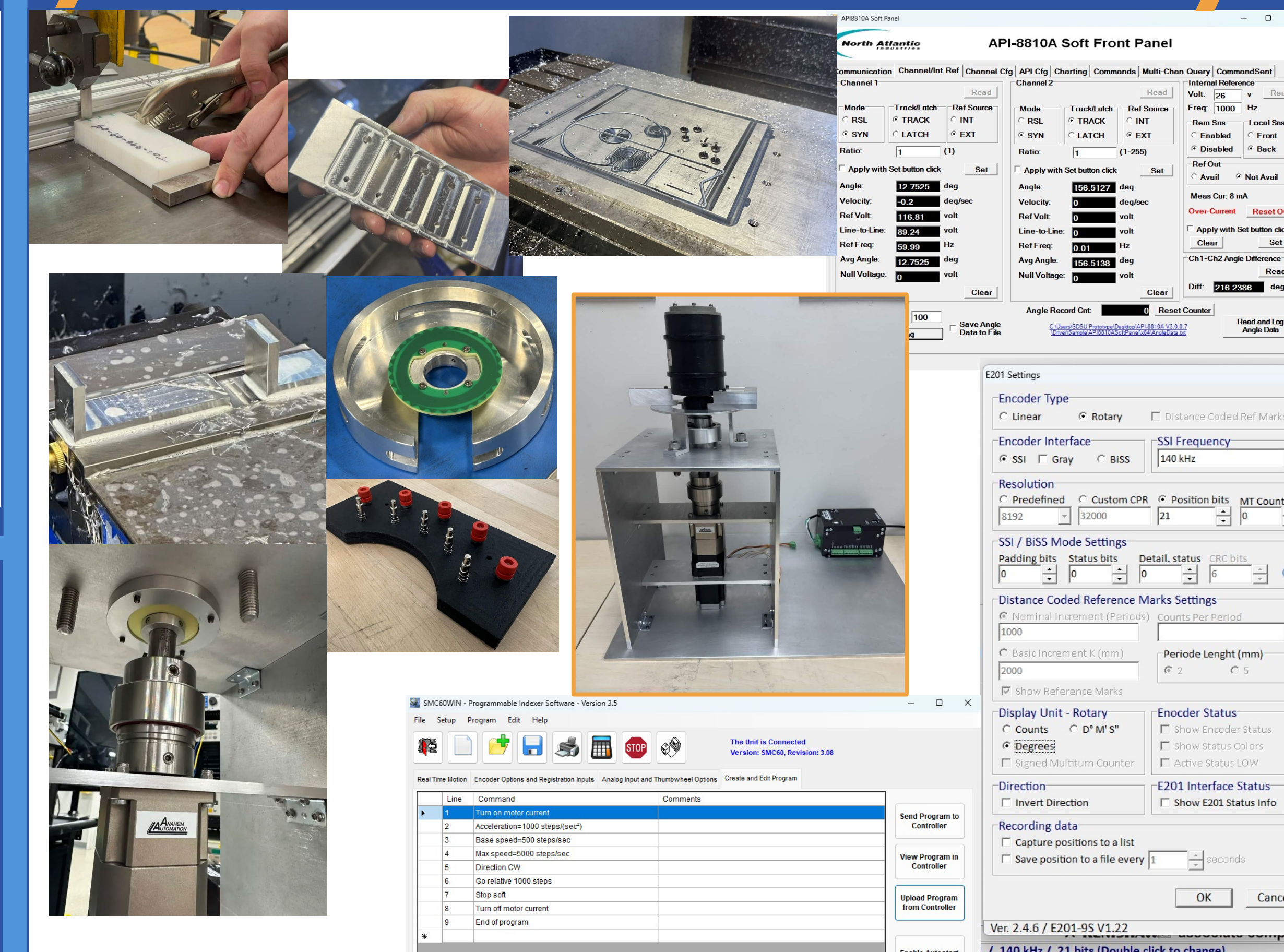
General Dynamics Ordnance and Tactical Systems (GD-OTS) is a global aerospace and defense company dedicated to equipping the U.S. military and its allies with a comprehensive suite of weapons and platform solutions, including armaments, missile subsystems, motion control, munitions, energetics, protection systems and composite aerospace structures for land, sea and air applications

Overview

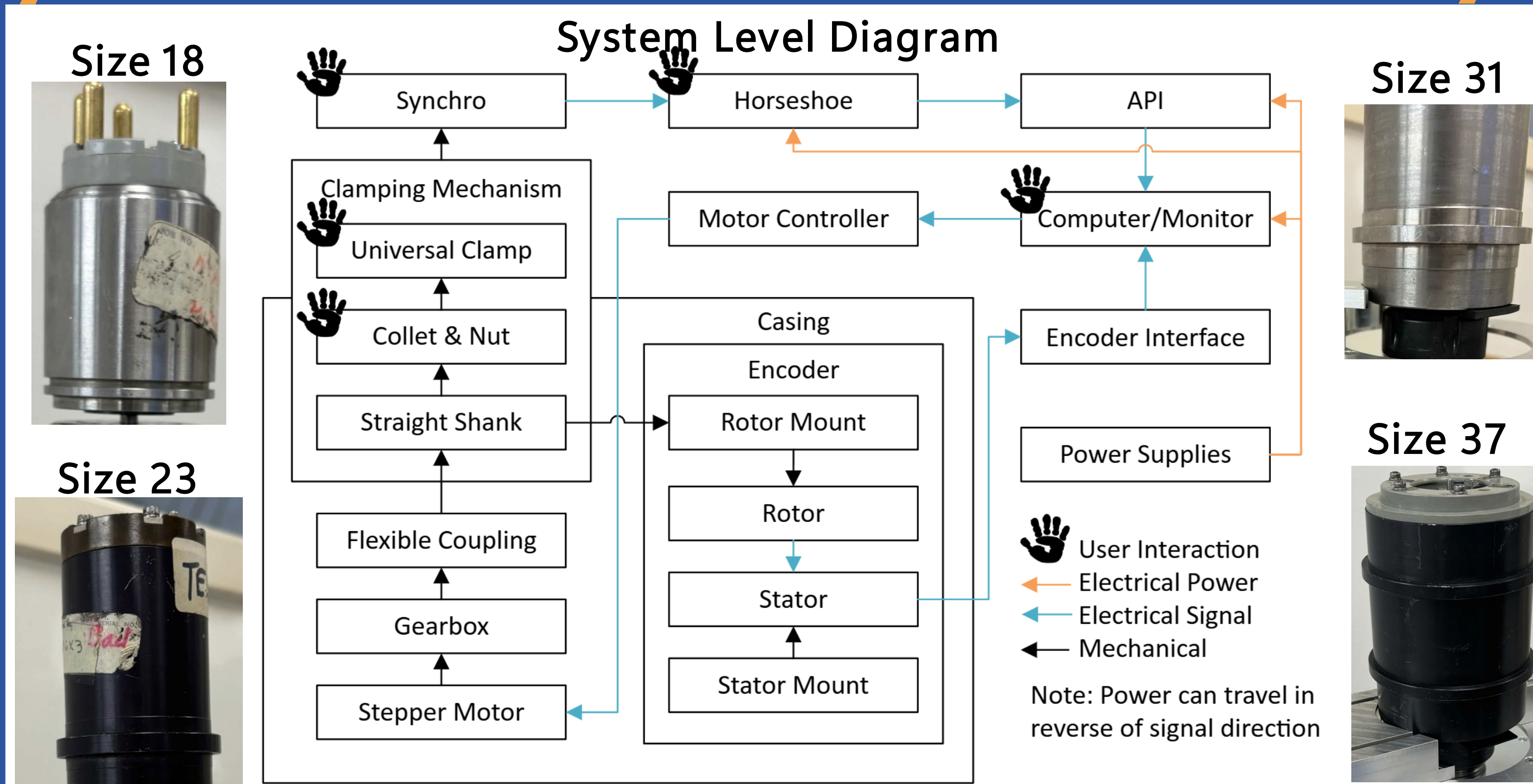
Problem: Current synchro testing at GD OTS is done manually, requiring technicians to physically move the input shaft to capture mechanical and electrical angles. This creates ergonomic risk and results in longer test cycles, reducing production efficiency.

Requirements: An autonomous tabletop system is needed to move the synchro output shaft to a specified degree, capture the electrical angle, and calculate the angular error between both measurements. The system must plug into a standard outlet, be programmed in LabView, and be validated through a Gauge R&R study

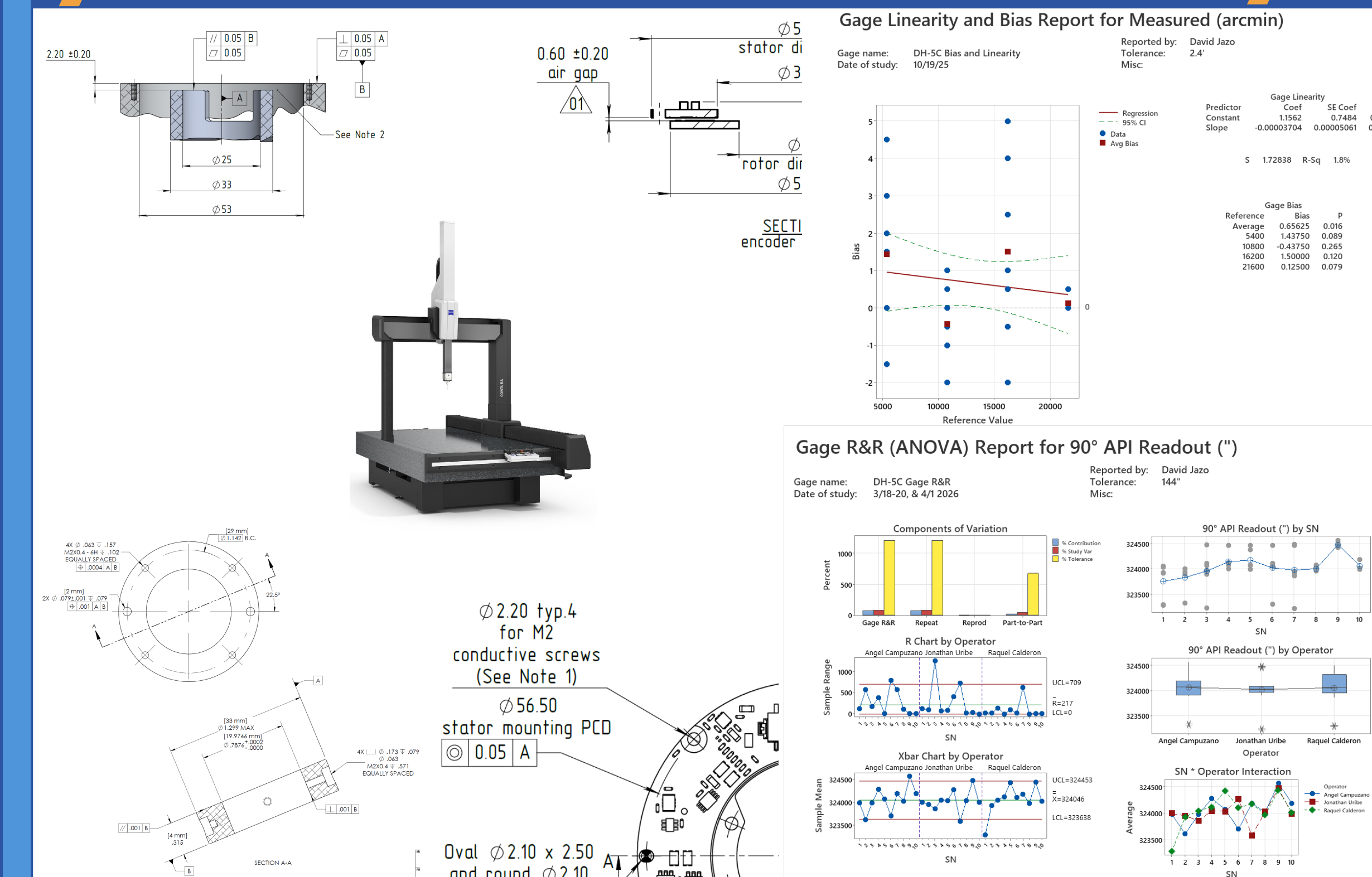
Manufacturing & Integration



Design



Testing & Analysis



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