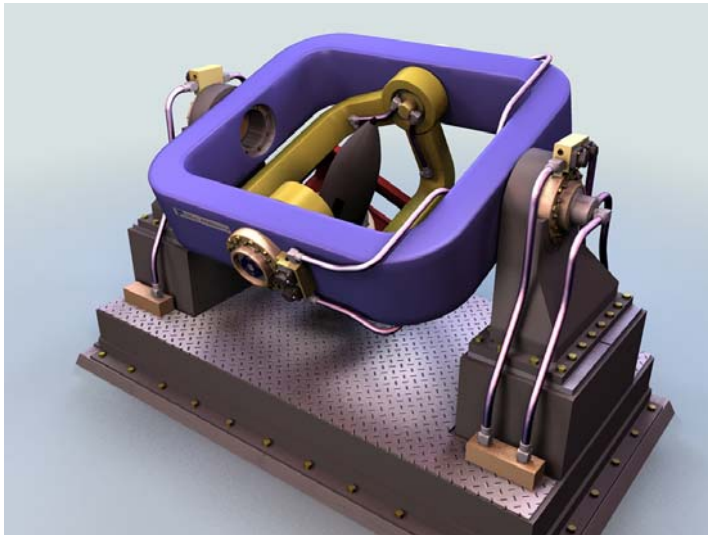




## Three-Axis, Electro-Hydraulic, Flight Motion Simulation (FMS) Systems

This equipment finds use in development and production hardware-in-the-loop (HWIL) testing of guidance and flight control systems for small- and medium-size vehicles. The user can reproduce, in real-time, the precise rotational responses of an actual vehicle in flight. Since it employs extremely powerful and efficient hydraulic actuators, the equipment is rugged enough to allow high utilization — such as Monte Carlo-type test scenarios — on a time-continuous basis.



- Modular construction, including System Control Console and Hydraulic Power Unit.
- Efficient, high-torque actuators require no counter-weights, and suit high-dynamics applications.
- Rigid structure ensures operational fidelity.
- Uses Ideal's flexible AERO 4000 Controller for real-time motion control via several industry-standard high-speed interfaces.
- Hydraulic snubbing, along with electronic and mechanical limits, address payload, system, and personnel safety.

Main configurable performance parameters, dependent on payload and application requirements:

	Roll	Yaw	Pitch
Angular Displacement	±45 to Continuous	±45 to ±120	±45 to ±120
Peak Velocity, degrees/sec	600 to 7200	200 to 600	200 to 600
Peak Acceleration, degrees/sec <sup>2</sup>	20,000 to 60,000	5,000 to 35,000	5,000 to 35,000
Position Accuracy, degrees (feedback transducer-dependent)	±0.2 to ±0.002	±0.053 to ±0.002	±0.053 to ±0.002
Frequency Response, Hz, payload-dependent	50	33	33

### Standard features:

Inter-axes Orthogonality: 30 arc-seconds  
 Axes intersection: ±0.02" (±0.5mm)

Submit your requirements and let our engineers work with you toward an effective solution.