

AEROFLEX

A passion for performance.

DC Motors

Actuators

Gimbals

Controllers

Slip Ring Assemblies

Twist Capsules



Motion Control

Move your products to new heights with our complete and integrated motion control solutions for aerospace, military, satellite, and strategic industrial customers

Aeroflex has been providing critical markets with highly-reliable and precise motion control products for over 70 years. Today, our products are designed into systems developed for the harsh environments of aerospace and military, as well as the benign environment of scientific laboratories. The Aeroflex motion control product

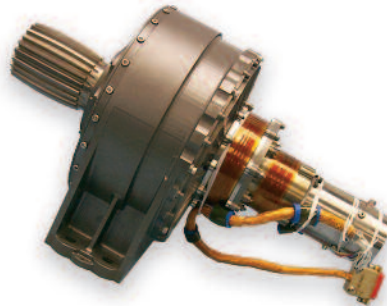
line supports applications from the component level through complete systems. Our designers will tailor existing products to best suit the application, or draw on our extensive engineering capabilities to create a custom design. Environmental testing – temperature cycling, vacuum, humidity, halt/hass, and vibration – are performed in-house at Aeroflex.



DC MOTORS

Our portfolio includes a wide range of DC motors specifically designed for HiRel applications. Aeroflex can customize all motors for specific requirements, and supply them as framed or frameless, housed or with custom mounting interfaces. They include:

- Stepper motors
 - Unipolar or bipolar
 - 1° to 90° step angles
- Brushless DC motors
 - 2 or 3 phase
 - Optional commutation
- Zero cogging motors
 - Ideal for precise pointing apps
 - 1 to 20-inch diameters
- Limited-angle torque motors
 - Wide variety of catalog sizes
 - Cog-free motion in a limited range
- Voice coils
 - Standard or custom designs
 - Linear or rotary motion

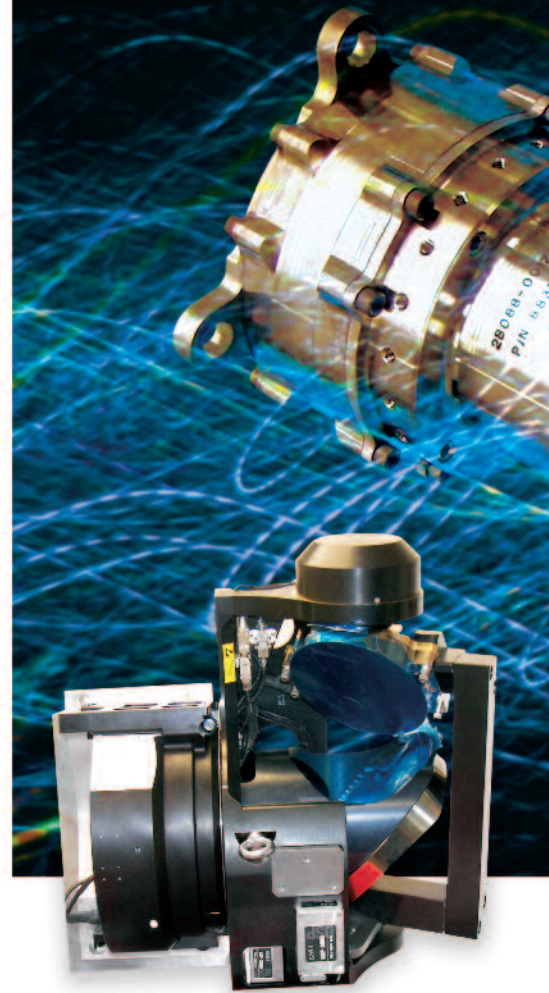
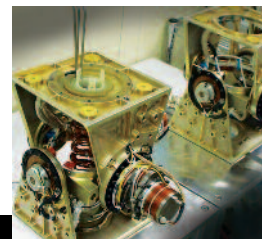


ACTUATORS

Aeroflex has a significant heritage in actuation. This extensive experience allows us to build-in application-dependent customer design options for:

- Motor selection
- Gear set
- Special interfaces
- Position feedback
- Pass-through for cabling/RF

We can modify existing designs to fit a specific application, or formulate a complete custom design. These designs can accommodate tough environmental requirements, including extreme temperatures, vacuum, radiation, dust, and corrosive atmospheres.

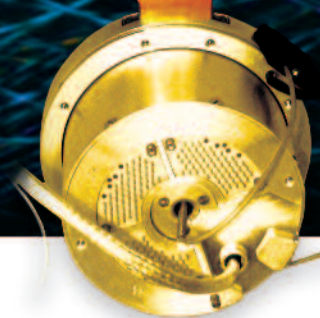
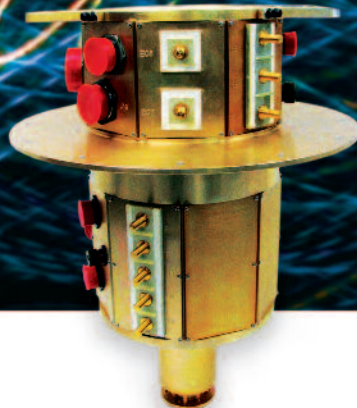


GIMBALS

Precision gimbals for pointing and tracking, stabilized platforms, and pedestals have been a specialty of Aeroflex Motion Control since the early 1940s. We have deep and broad experience in both terrestrial and space applications. Whatever the application – intersatellite communications, stabilized shipboard uplinks, remote sensing systems, designators, tracking systems, or a host of others – we have expertise.

Over several decades, we have provided thousands of systems and components. Coupled with our electronic motion controllers, we can provide a complete turnkey multi-axis gimbal system built to your requirements.

MOTION CONTROL



CONTROLLERS

With extensive design and manufacturing capabilities in-house, Aeroflex can handle any aerospace electronic controller requirement. We offer a variety of drive schemes and interfaces, including MIL-STD-1553 and RS422/485. Aeroflex controllers can read a variety of position feedback devices, including resolvers, encoders, potentiometers, and hall sensors.

Aeroflex offers a variety of custom and standard controller products featuring a wide selection of characteristics:

- FPGA based
- Radiation hardened
- Variety of external interfaces
- BDCM or stepper motor drive schemes
- Hall, resolver or encoder commutation and position feedback
- Micro-stepping and closed-loop operation schemes
- Multiple motor driving capability

SLIP RING ASSEMBLIES

A variety of applications require cable management systems to pass power, signals, video, fluids, and RF through a moving interface. Our slip ring assemblies are an ideal cable management option when the rotation is greater than 360°. We can fully customize our high-reliability slip ring assemblies to fit application requirements – or supply one of our standard products. Our slip rings can include:

- RF rotary joints
- Position feedback including resolvers and encoders
- Fiber optic rotary joints
- Fluid rotary joints

Aeroflex can also provide separate brush block and ring assemblies for applications that require this level of assembly. In addition, our slip ring products can be joined with one of our DC motor products for a complete solution for your particular application.

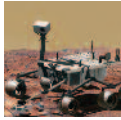
TWIST CAPSULES

Aeroflex's twist capsule products are designed for limited angle rotation applications. We customize our twist capsules for the number of lines, the range of motion, and the envelope available for each application.

Like our slip ring assemblies, our twist capsules can transmit these signals:

- Power
- Signal
- RF
- Video
- High frequency
- Telemetry

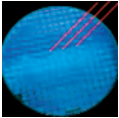




Our vast experience supplying critical motion control speaks for itself



EXPERIENCE Tanks | Light Armored Vehicles | Personnel Carriers | Military Turret Drives | Fire Control Test Systems | Electro-Optical Systems | Missile Guidance | Radar Pedestals | Inertial Navigation Systems | Stabilized Platforms | Satellites | Interplanetary Missions |



HERITAGE MILITARY PROGRAMS Paladin M109A6 Howitzer | Armored Knight | Vulcan Air Defense System | HELRAS Sonar System | Patriot Launcher | MSTAR | Combat Talon II | Future Command Liaison Vehicle | LAV25 Light Armored Vehicle | Fire Support Team Vehicle | RECCE Light Armored Vehicle | Multi-Purpose Protective Vehicle | ARROWS Remotely Operated



Weapon Station | Future Command Liaison Vehicle | KATLANIT-Israel | Improved TOW Vehicles | Aurora Vehicle M109 | M60 Vehicle Upgrade | FH88 155 Howitzer Upgrade | CROWS Weapon Station |



HERITAGE COMMERCIAL PROGRAMS Test Inspection Probes | Packaging Machines | Machining Centers | CCTV pan/tilt camera mounts | Robotics | Rotary Index Tables | Oil Field Drilling | Centrifuges | Semiconductor Equipment | Wind Turbines | Cranes | Man Lifts | Medical Equipment | Motion Simulators | Rate Tables |



HERITAGE SPACE PROGRAMS Tethered Satellite | Viking | Pioneer | Intelsat | Mars Lander Program | Hubble | Cassini | NPOESS | Commercial Satellites | Classified Space Programs |



HERITAGE AEROSPACE PROGRAMS U-2 Thermal Weapons Sight | C-130 Gunship | Common Module Scanner | JASSM-ER | DIRCM | Maverick | BAT Missile | DDG-1000 | Patriot Missile | Lantirn | TADS/PNVS |



Motors, Actuators, Controllers, Gimbals

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Slip Ring Assemblies, Twist Capsules

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WEB SITE www.aeroflex.com/slirings

TELEPHONE 239-263-3102



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.