As of November 12, 2010   **CDA INTERCORP SPACE PROGRAMS**

CUSTOMER/PROGRAM	APPLICATION	InterCorp P/N
Alliance Space Systems Program		
Spacecraft for the Universal Modification of Orbits (SUMO): Robotic Arm	Geared Brushless Permanent Magnet Motor with Friction Brake for Shoulder Yaw Actuator	ER5-A
	Geared Brushless Permanent Magnet Motor with Friction Brake for Shoulder Pitch Actuator	ER6-A
	Geared Brushless Permanent Magnet Motor with Friction Brake for Elbow Pitch Actuator	ER7-A
	Geared Brushless Permanent Magnet Motor with Friction Brake for Wrist Yaw, Pitch & Roll Actuator	ER8-A
	Geared Brushless Permanent Magnet Motor for Tool Drive	ER9-A
ATK Space Systems Program		
IMAGE: Imager for Magnetopause-to-Aurora Global Exploration	Geared Stepper Motor Brake for Radial Antenna Deployer on Radio Plasma Imager (RPI)	CT2-B
AIM: Aeronomy of Ice in the Mesosphere	Geared Eddy Current Damper for Solar Array Deployment	EM6-A
Advanced Anti-Radiation Guiding Missile Firing	Geared Eddy Current Damper for Deployment Pulley	EY3-B
X-32	Geared Stepper Motor with Detent Brake for Deployment Actuator	FF8-A

Applied Physics Laboratory

Program

Messenger Spacecraft: Mercury Dual Imaging System (MDIS)	Geared Stepper Motor for Filter Wheel Drive	DS9-A
	Brushless Resolver for Filter Wheel Position Sensing	DT1-A
Compact Reconaissance Imaging Spectrometer for Mars (CRISM)	Geared Stepper Motor for Mirror Fold Drive	DW9-A

Astrium

Program

Various Satellites Including: Orion, Hotbird, and Skynet	Geared Stepper Motor Brake for Antenna Deployment Trimming Mechanism (ADTM)	BU7-E
Worldstar Satellite	Geared Stepper Motor Brake for Antenna Deployment Trimming Mechanism (ADTM)	CP1-A
Eurostar 3000	Geared Stepper Motor Brake for Antenna Deployment Trimming Mechanism (ADTM)	DL1-A
High Resolution Dynamics Limb Sounder Instrument (HIRDLS)	Geared Stepper Motor Brake for Solar Shield Door Hinge Drive	DA6-A
AMOS (3)	Geared Eddy Current Damper For Solar Array Deployment	EQ4-A

Ball Aerospace

Program

Hubble Space Telescope: Corrective Optics Space Telescope Axial Replacement (COSTAR)	Geared Stepper Motor for Mirror Tip-Tilt Mechanism	BW3-A
	Geared Stepper Motors for Forearm Deployment Mechanism	BW5-A BW7-A
	Stepper Motor Brake for Deployment Drive Mechanism	BX5-A

Thermal Imaging Radiometer (TIR)	Geared Stepper Motor for Rotation of Fast Steering Mirror	CA4-B
Cosmic Origins Spectograph (COS)	Geared Stepper Motor with Integral Resolver Feedback for Filter Wheel Drive	DH4-A
	Geared Stepper Motor with Detent Brake and Ball Screw for Aperture Positioning	DP1-A
	Geared Stepper Motor for OSM1 Linear Stage Actuator Drive	DR8-A
Hubble Space Telescope: Near Infrared Camera and Multi-Object Spectrometer (NICMOS)	Geared Stepper Motors for Filter Wheel Drive	CD4-A
	Geared Stepper Motor for Field Offset Mechanism	CE9-A
	Geared Stepper Motor for Pupil Adjustment Mechanism	BW3-C *
Hubble Space Telescope: Space Telescope Imaging Spectrograph (STIS)	Brushless Permanent Magnet Motor with Resolver Feedback for CCD Shutter Drive	CD1-A *
	Geared Stepper Motors for Mode Select Mechanisms	CA8-A CA9-A CC6-A
	Geared Tandem Brushless Resolvers for Mode Select Mechanism	CF1-A CF2-A CF3-A
	Geared Stepper Motor for Pupil Adjustment Mechanism	BW3-B
	Geared Stepper Motor Brakes for Inner and Outer Calibration Input Mechanisms	CG6-A CG7-A
	Geared Stepper Motors for Echelle Blocker and Mode Isolation Shutter	CD5-A **

	Geared Stepper Motor for Secondary Shutter Latch Mechanism	CN5-B
	Rotary Switch for Primary Shutter Latch Mechanism	CN6-A
* Also used on Wide Field Camera 3 (WCF3)		
** Also used on Advanced Camera for Surveys (ACS)		
Hubble Space Telescope: Advanced Camera for Surveys (ACS)	Geared Stepper Motor with Integral Resolver feedback for Filter Wheel Drive	CJ6-B
	Geared Stepper Motor with Integral RVDT for Inner Wobbler Drive	CJ7-A
	Geared Stepper Motor with Integral Resolver feedback for Outer Wobbler Drive	CJ8-A
	Geared Stepper Motor Brakes for Inner and Outer Cal-Door/Cronoagraph Mechanism	CR5-A CR6-A
Hubble Space Telescope: Wide Field Camera 3 (WCF3)	Geared Stepper Motor with Integral Resolver Feedback for Filter Wheel Drive	DM6-A
	Geared Stepper Motor with Integral RVDT for Inner Wobbler Drive	DM7-A
	Geared Stepper Motor with Integral Resolver Feedback for Outer Wobbler Drive	DM8-A
Stratospheric Aerosol and Gas Experiment (SAGE III)	Geared Stepper Motor for Solar Attenuator Optic Positioner	CL9-A
Spitzer Space Telescope (formerly SIRTF-CTA)	Geared Stepper Motor for Photon Shutter Mechanism Drive	DB7-A
	Geared Stepper Motor for Focus Mechanism Assembly Drive	DD5-A

Scripps-NISTAR Instrument	Geared Stepper Motor for Shutter and Filter Wheel Drive	DG4-A
Prospector (Classified)	Geared Stepper Motor for Valve 1 Drive	CT4-A
	Geared Stepper Motor for Y-Axis Structure Drive	CT5-A
	Geared Stepper Motor for Lock 1 Drive	CT7-A
	Geared Stepper Motor for Valve 2 Drive	CT8-A
	Geared Brushless Permanent Magnet Motor for IMRT Drive	CT9-A
	Geared Stepper Motor for Structure 2 Drive	CU1-A
	Geared Stepper Motor for Structure Drive	CU2-A
	Geared Stepper Motor for Mechanism Drive	CU3-A
	Geared Stepper Motor Brake for Linear Rack Drive	CU4-A
	Geared Stepper Motor for Lock 2 Drive	CU9-A
	Geared Stepper Motor for VRM Drive	CV1-A
	Geared Stepper Motor for PRM Drive	CV2-A
	Brushless Permanent Magnet Motor for IMAT Pump Drive	CV6-A
	Geared AC Motor Brake for Clamp Actuator	CV9-A
	Geared Stepper Motor for Z-MTN Structure Drive	CW2-A

Geared Stepper Motor for Mechanism Drive	CW4-A
Geared Stepper Motor for Axis Z Drive	DB9-A
Geared Stepper Motor Brake for Axis 4 Drive	DC4-A
Geared Stepper Motor with Ball Screw for Axis 3 Drive	DC5-A
Geared Stepper Motor Brake for Deployment Drive	DC6-A
Geared Stepper Motor for Rotational Drive	DC7-A
Geared Stepper Motor for Axis 1 Drive	DC8-A
Geared Stepper Motor for Structure Z-MTN Drive	DC9-A
Stepper Motor for BAT Agitation Drive	DD3-A
Geared Stepper Motor with Ball Screw for BAT Clamp Drive	DD4-A
Geared Stepper Motor for PRM Drive	DF9-A
Geared Stepper motor w/Friction Brake for Z-Rotation Drive	DP6-A
Geared Stepper Motor for RDA Drive	DW2-A
Geared Stepper Motor for Universal Drive	DW8-A
Geared Stepper Motor for RDA Drive	DY1-A
Brushless Permanent Magnet Motor for BAT3 Agitation Drive	DY7-A

	Geared Stepper Motor for Classified Usage	EA5-A
Quickbird 1	Geared Stepper Motor for Focus Mechanism	DJ8-A
Ozone Mapping Profiler Suite (OMPS)	Geared Stepper Motor with Integral Resolver Feedback for Nadir Calibration Door Mechanism Drive	DR2-A
Deep Impact Spacecraft	Geared Stepper Motor for Shutter Mechanism Assembly Drive on HRI, MRI, and ITS Instruments	DR3-A
	Geared Stepper Motor for Nine Position Filter Wheel Assembly Drive on HRI and MRI Instruments	DR4-A
Hi Resolution Imaging Science Instrument (HiRISE)	Geared Stepper Motor with Detent Brake and Ball Screw for Fold Mirror #2 Drive	DV8-A
OPAL (Classified)	Geared Stepper Motor for FM Drive	DV5-A
	Geared Stepper Motor for Cryo-FM Drive	DV6-A
	Geared Stepper Motor for Source Select Drive	DW1-A
	Geared Eddy Current Damper	DX3-A
	Geared Eddy Current Damper	DX4-A
NPOESS Preparatory Project (NPP)	Geared Eddy Current Damper for Main Solar Array Deployment Hinge	DZ3-A
	Geared Eddy Current Damper for Interpanel Solar Array Deployment Hinge	DZ4-A
James Webb Space Telescope (JWST)	Geared Brushless Permanent Magnet Motor for Control of Primary Mirror Segments and Secondary Mirror	EB2-A

	Geared Stepper Motor w/Ball Screw for GSE	EW5-A
Commercial Laser Communications Terminal (CLCT)	Geared Stepper Motor for Flipper Assembly Drive	EB5-A
	Geared Stepper Motor for Switch Assembly Drive	EB6-A
Kepler	Geared Eddy Current Damper for Phototomer Deployment	EC7-A
Worldview 60	Geared Eddy Current Damper for Main Deployment Hinge	EC9-A
	Geared Stepper Motor with Ball Screw for Focus Actuator	ED2-A
Worldview 110	Geared Eddy Current Damper for Hi Gain Antenna Deployment Boom	EG1-A
Space Based Space Surveillance (SBSS)	Geared Stepper Motor for Focus Actuator	EL2-A
	Geared Stepper Motor with Rotary Accelerometer for Filter Wheel Drive	EL3-A
	Geared Eddy Current Damper for Aperture Door Mechanism	EN8-B
	Geared Stepper Motor with Detent Brake for GSE Door Actuator	EN9-A
	Geared Eddy Current Damper for Solar Array Main Deployment Hinge	EP4-A
OLI: Operational Land Imager	Geared Stepper Motor with Detent Brake and Ball Screw for Focus Mechanism	EW7-A
Operational Load Lander (OLI)	Geared Stepper Motor with Feedback Gearbox for Calibration Actuator	EZ1-A

Rofi-STA	Frameless RVT for Shutter Position Sensing	FD8-A

Com Dev
   <u>Program</u>

NGST Demonstrator	Brushless Resolver for Cryogenic System Position Feedback	CA6-B
Stratospheric Wind Interferometer for Transport Studies (SWIFT)	RVDT for PMA Focus Mirror Sensor	ED8-A
	RVDT for Cryogenic PMA Focus Mirror Sensor	ED9-A
James Web Space Telescope (JWST): Find Guidance Sensor	Geared Stepper Motor for Cryogenic Pupil Wheel Actuator	ES2-A
	Geared Stepper Motor for Cryogenic Filter Wheel Actuator	ES3-A
	Geared Stepper Motor with the Detent Brake Integral Position Feedback and Ball Screw for Cryogenic Fine Focus Mechanism	ES4-A
	Geared Stepper Motor with Detent Brake, Integral Position Feedback and Ball Screw for Cryogenic Course Focus Mechanism	ES5-A
	Brushless Resolver for Cryogenic Pupil Wheel Sensor	ES6-A
	Brushless Resolver for Cryogenic Filter Wheel Sensor	ES7-A

CSA Engineering
   <u>Program</u>

Boom Isolation System on Classified Program	Geared Stepper Motor with Acme Screw for Tuned Mass Damper	CM1-A

Comision de Nacionales de Actividades Espaciales (CONAE)
   <u>Program</u>

SAOCOM	Geared Brushless Permanent Magnet Motor with Rotary Accelerometer for SAR Antenna Panel Deployment	EH1-A
Aquarius/SAC-D	Geared Eddy Current Damper for Solar Array Deployment	EQ7-A
SAC-D	Geared Stepper Motor for Mirror Actuation	EV1-A

DLR: Institute of Planetary Exploration
    <u>Program</u>

Rosetta Lander	Geared Stepper Motor for Descent/Downlooking Camera Drive	DA1-A

Galileo Avionica
    <u>Program</u>

COSMO SkyMed	Geared Stepper Motor with Detent Brake for Scanning Mirror Lock Motor on High Resolution Camera	DM1-A
Rosetta Lander	High Accuracy Brushless Resolver For Drill Drive Position Sensor	DH2-A

Goodrich Optical & Space Systems
    <u>Program</u>

Hubble Space Telescope: Fine Guidance Sensor (FGS)	Stepper Motor for Fold Mirror Adjustment for S-Curve Restoration	CG5-A
Multi-Thermal Imager	Stepper Motor Brake for Calibration Wheel and Door Mechanisms	CL6-A

Honeybee Robotics
    <u>Program</u>

Mars Science Lander (MSL)	Geared Brushless Permanent Magnet Motor with Detent Brake for Elevator Actuator	EM2-A

	Geared Brushless Permanent Magnet Motor for Carousel Actuator	EM4-A

Honeywell
    <u>Program</u>

International Space Station	Geared Stepper Motor with Lead Screw for Cryocooler Flow Control Valve Actuation	CC2-A CC5-A

Howden Fluid Systems
    <u>Program</u>

Relatively Mission Space Vehicle and Gravity Probe B	Geared Stepper Motor with Acme Screw for Thruster Isolation Valve	CJ5-A

ITT
    <u>Program</u>

Next View Space Telescope (NVST)	Stepper Motor for Focus Actuator	ED6-A
Next View Orbimage Orbview 5	Stepper Motor for Focus Actuator Geared Stepper Motor for Outer Barrel Assembly Door Actuator	EF4-A EG3-A
Classified	Stepper Motor	EU3-A
GOES-R: Advanced Baseline Imager	Geared Stepper Motor for Solar Calibration Door Actuator	EU7-A
Classified	Geared Stepper Motor for FLIP A Actuator	EX7-A
GeoEye 2	Stepper Motor	FC8-A
GOES: Advanced Baseline Imager/Advanced Himawari Imager	Geared Stepper Motor for Solar Calibration Door Actuator	FD7-A

Jena Optronik
    <u>Program</u>

Mars Netlander	Geared Stepper Motor for PanCam Filter Swivel Device Drive	DT9-A

	Geared Stepper Motor for PanCam Camera Rotation Device Drive	DU1-A

Jet Propulsion Labs
    <u>Program</u>

Space Shuttle: Spaceborne Imaging Radar (SIR-C), and Shuttle Radar Topography Mission (SRTM)	Geared AC Motors for X-Band Tri-Drive Mechanism	BT5-A
Genesis	Geared Brushless Permanent Magnet Motor for Canister Cover and Lock Ring Actuator	DD6-A
Rosetta/MIRO (Microwave Instruments for Rosetta Orbiter)	Geared Stepper Motor for Calibration Mirror Switch Drive	DF3-A

John Hopkins University
    <u>Program</u>

Far Ultra-Violet Spectroscopic Explorer (FUSE)	Geared Stepper Motor for Fine Mirror Adjustment Mechanism	CK9-A

Kongsberg
    <u>Program</u>

Rosetta Spacecraft	Geared Stepper Motor for Solar Array Deployment Mechanism	DH3-A ***
KARMA	Geared Stepper Motor for Solar Array Drive Mechanism	EX8-A
	Geared Stepper Motor for Solar Array Drive Mechanism	FB8-A
Bepi Columbo (Mercury Transfer Module)	Geared Stepper Motor for Solar Array Drive Mechanism	EY9-A
KARMA	Geared Stepper Motor for SADM Actuator	FB8-A
	Geared Stepper Motor for SADM Actuator	FE9-A

*** Also Used on Venus Express and Mars Express

Laboratory for Atmospheric & Space Physics
Program

SAVE-EOS	Geared Stepper Motor for Filter Wheel Drive	DG2-B
Solar Dynamics Observatory-Extreme Ultraviolet Variability Experiment (SDO-EVE)	Geared Stepper Motor with Integral Resolver Feedback for Filter Wheel Drive	ED3-A
GOES-R	Geared Stepper Motor with Detent Brake for EXIS Door Drive	FA3-A
	Geared Stepper Motor for EXIS Filter Wheel Drive	FA7-A
Total Solar and Spectral Irradiance Sensor (TSIS)	Geared Stepper Motor with Detent Brake for Optical Bench Deployment Actuator	FD1-A

Lincoln Laboratory
Program

Earth Orbiter-1 Advanced Land Imager	Geared Stepper Motor for Calibration Plate Drive	CV3-A
	Geared Stepper Motor for Aperture Cover Drive	CV4-A
	Geared Stepper Motor Brake with Ball Screw and Integral Resolver Feedback for Calibration Selector Drive	CV5-A
GeoLite Lasercomm Terminal	Geared Stepper Motor for Solar Window Cover Drive	DD1-A
Lasercom	Geared Stepper Motor with Detent Brake for Flexure Actuator	EE2-A

Lockheed Martin
Program

Solar-B	Geared Stepper Motor with Ball	DK8-A

	Screw for Mirror Actuator on Focal Plane Package (FPP)	
Space Based Infra Red System (SBIRS)	Geared Stepper Motor for Deployable Light Shade Drive	DP8-B
P909 (Classified) and Advanced Extremely High Frequency Communications Satellite (AEHF)	Geared Eddy Current Damper for Deployment Mechanism	DX2-B
Helioseismic & Magnetic Imager Investigation (HMI)	Geared Stepper Motor with Acme Screw for Alignment Actuator	EA4-A
	Geared Stepper Motor for Door Actuator	EA6-A
Atmospheric Imaging Assembly (AIA)	Geared Stepper Motor with Ball Screw for Focus Actuator	EC3-A

Marotta Scientific Controls
     Program

Vacuum System, International Space Station	Stepper Motor Brake for Vacuum Valve Actuation	CL8-C

MD Robotics
     Program

Special Purpose Dexterous Manipulator (SPDM)	Geared Stepper Motor for Orbil Tool Changeout Mechanism (OTCM) Drive	DK6-A
Phoenix	Geared Stepper Motor for Lens Cover Actuator	EG4-A

MDA Corp.
     Program

O3B Gimbaled Antenna	Geared Stepper Motor for Antenna Steering	EW8-B

MicroSat Systems
     Program

Demonstration & Science Experiment (DSX)	Geared Eddy Current Damper for Solar Array Hinge Line Deployment	ER2-A*
Orbcomm Generation 2 (OG2)	Geared Stepper Motor for Solar	EX4-A

Satellite	Array Deployment	
	* also used on OG2 Satellite	

MMA Design
   <u>Program</u>

CICERO	Geared Stepper Motor with Detent Brake for Antenna Pointing Mechanism	FE2-A

NASA – Goddard Space Flight Center
   <u>Program</u>

Mars Science Lander (MSL)	Geared Brushless Permanent Magnet Motor for High Conductive Valve Actuator	EP1-A
James Webb Space Telescope (JWST): Near Infrared Spectometer (NIRSpec)	Geared Stepper Motor for Microshutter Launch Lock Actuator	ET3-A
	Geared Stepper Motor with Integral Redundant Resolver for Microshutter Helium Cryogenic Actuator	EW6-A

NASA – Johnson Space Center
   <u>Program</u>

International Space Station	Linear Eddy Current Damper for Deployment of Jet Pack Hand Controller	DA3-A

NASA – Langley Research Center
   <u>Program</u>

Gas and Aerosol Monitoring System (GAAMS)	Stepper Motor with Brake for Spectrometer Drive	DK9-A

NASA – Lewis Space Center
   <u>Program</u>

Lunar Rover	Geared Brushless Permanent Magnet Motor for Wheel Drive	EL1-A

Naval Research Laboratory
Program

Classified	Geared Stepper Motor for Deployment System	CN7-A
SOLAR-B	Geared Stepper Motor with Detent Brake for Mirror Actuator	DL4-A
	Geared Stepper Motor with Detent Brake and Integral Position Feedback for Paddle Wheel Drive	DL5-A
	Geared Brushless Resolver for Mirror Position Sensor	DL6-A
Spatial Heterodyne Imager for Mesospheric Radicals (SHIMMER)	Geared Stepper Motor Brake for Shutter Drive	DW6-A
	Geared Stepper Motor for Door Drive	DW7-A

Nippon Pulse Motor Company
Program

Mercury Magnetospheric Orbiter Satellite (MMO)	Geared Stepper Motor for Drive Actuator	FA9-A

Northrop Grumman Aerospace Systems
Program

EOS-PM1 Spacecraft	Geared Eddy Current Damper for X-Band Antenna Deployment	DH1-A
TTM Program	Geared Eddy Current Damper for Deployment System	EV2-A
	Geared Brushless Permanent Magnet Motor for Deployment System	EH8-B
P858 (Classified)	Geared Brushless Permanent Magnet Motor for ME Actuator	EX9-A
	Geared Brushless Permanent	EY1-A

	Magnet Motor for MD Actuator	
	Geared Brushless Permanent Magnet Motor for MG Actuator	EY2-A
DARPA Fast Access Spacecraft Testbed (FAST)	Geared Stepper Motor for STEM Drive Deployer	FB3-A
James Webb Space Telescope (JWST)	Geared Brushless Motor with Redundant Field Director for PMBA and SMSS Actuators	FB4-A
	Geared Brushless Motor with Redundant Field Director for Sunshield MBA Drive	FB5-A
	Geared Brushless Motor with Redundant Field Director for Sunshield STSA Drive	FB6-A
	Geared Brushless Motor with Redundant Field Director for Sunshield MTS Drive	FB7-A
AMP	Geared Eddy Current Damper for a Classified Application	FF9-A

Orbital Sciences Corp.

Program

| Orb View-3 | Geared Stepper Motor with Integral Position Feedback for Camera Door Actuator | DC3-A |
| Solar Terrestrial Relations Observatory (STEREO) | Geared Stepper Motor for Door Actuator | EB1-A |

PMOD

Program

| Precision Monitoring of Solar Variability (PREMOS) | Stepper Motor for Cover Mechanism Drive | EP6-A |

Raytheon Santa Barbara Remote Sensing

Program

| Thermal Emissions Imaging System (THEMIS) | Geared Stepper Motor for Shutter Control Actuator | DF6-A |

RUAG Space
Program

Program	Description	Code
SAC-C	Geared Eddy Current Damper for Solar Array Deployment	DB4-A
Rosetta Spacecraft	Geared Stepper Motor for Antenna Pointing Mechanism	DE9-A
Large Deployable Antenna	Geared Stepper Motor for Antenna Deployment	DY8-A
Solar Variable & Irradiance Monitor (SOVIM)	Stepper Motor for Cover Mechanism Drive	DN4-A
Short Range Optical Intersatellite Link Terminal (SROIL)	Stepper Motor with Detent Brake for FOV Drive	DN8-A
JWST Mid Infra-Red Instrument (MIRI)	Geared Stepper Motor for Contamination Cover Drive	EF5-A
Bepi Columbo	Geared Stepper Motor for Thrust Pointing Mechanism Actuator	FE1-A

Sandia National Laboratories
Program

Program	Description	Code
Space Shuttle: Mechanisms of Granular Materials (MGM)	Geared Stepper Motor with Acme Screw for Crusher Motor #1	CE1-A
	Geared Stepper Motor with Acme Screw for Crusher Motor #2	CE2-A
	Geared Stepper Motor with Acme Screw for Accumulator Motor	CE3-A

Sener
Program

Program	Description	Code
GAIA Satellite	Geared Stepper Motor for Secondary Mirror Mechanism Actuator	ET5-A
Exomars	Geared Tandem Resolver for Position Feedback Sensing	FG2-A

Space Systems Loral
    Program

    IPSTAR   Geared Eddy Current Damper for   DS6-B
Solar Array Deployment

SSG, Inc.
    Program

    Orb View-3, and Orb View-4, and   Geared Stepper Motor with Ball   CY8-A
TRIANA/NISTAR   Screw for Camera Focus Drive

    Comet Nucleus Tour   Geared Stepper Motor with Integral   DP2-A
(CONTOUR)   Position Feedback for Mirror Drive

    CONTOUR Remote Imaging   Geared Stepper Motor with Integral   DP4-A
Spectrograph (CRISP)   Position Feedback for Filter Wheel
Drive

    GOES Advanced Baseline Imager   Geared Stepper Motor with Ball   EP2-A
(ABI)   Screw for Focus Actuator

    JMAPS   Geared Stepper Motor with Detent   FF1-A
Brake, Resolver and Feedback
Gearbox for Optical Telescope
Assembly Drive Actuator

                                 Geared Stepper Motor with Detent   FF2-A
Brake, Resolver and 2-Pass
Feedback Gearbox for Optical
Telescope Assembly Focus
Actuator

Swales Aerospace
    Program

    Solar Heliospheric Observatory   Geared Stepper Motor for Slit Plate   CF8-A
(SOHO)   Positioning on UVCS (Ultra Violet
Coronagraph Spectrometer)

    Far Ultra-Violet Spectroscopic   Geared Stepper Motor for Fine   CK9-B
Explorer (FUSE)   Mirror Adjustment Mechanism

    Advanced Camera for Surveys   Brushless Permanent Magnet   CD1-A
(ACS)   Motor with Resolver Feedback for
CDD Shutter Drive

Hubble Space Telescope (HST)	Geared Brushless Permanent Magnet Motor for Power CAT Drive	DN6-A
ICESat: Geoscience Laser Altimiter System (GLAS)	Geared Stepper Motor for Boresight Adjustment Mechanism Drive	DU2-A
Pupil Imaging Lens (PIL)	Geared Stepper Motor for Secondary Lens Actuator	EE4-A
	Rotary Switch for Primary Lens Actuator	EE5-A
MARS Science Laboratory (MSL) Chemistry & Mineralogy X-Ray Diffraction/X-Ray Fluorescence Instrument (CheMin)	Geared Stepper Motor for Sample Wheel Actuator	EP8-A
	Brushless Resolver for Sample Wheel Position Sensing	EQ1-A
	Geared Stepper Motor with Detent Brake and Ball Screw for Linear Drive	EQ3-A

TNO

Program

High Vacuum Test	Brushless Permanent Magnet Motor with Integral Brushless Resolver for Chopper Wheel Drive	DS2-A

University of Arizona
Lunar & Planetary Laboratory

Program

Mars Volatiles & Climate Surveyor (MVACS)	Stepper Motor for Focus Actuator	CS2-A
	Stepper Motor for Cover Drive	CS3-A
	Geared Stepper Motor for Filter Wheel Drive	CS4-A
MARS 2002	Stepper Motor for Focus Actuator	CS2-B

Phoenix; Stereo Surface Imager (SSI)	Geared Stepper Motor for Filter Wheel Drive	EC6-A

University of Colorado
Program

Far Ultra-Violet Spectroscopic Explorer (FUSE)	Geared Stepper Motor for Focal Plane Mirror Drive	CL1-A
	Geared Stepper Motor for Micrometer Drive	CP6-A
	Geared Stepper Motor with Ball Screw for Focus Drive	CP7-A

University of Padova (CISAS)
Program

Rosetta Orbiter: Optical, Spectroscopic, and Infrared Remote Imaging System (OSIRIS)	Geared Stepper Motor for Cover Shield Drive on Narrow and Wide Angle Cameras	DH6-A

University of Utah: Space Dynamics Lab
Program

Geostationary Imaging Fourier Transform Spectrometer (GIFTS)	Geared Stepper Motor Brake for Aperture Cover	DT2-A
	Geared Stepper Motor for Flip In Actuator	DT3-A
	Geared Stepper Motor with Ball Screw for IFC Selector	EA1-A

Zellweger Analytics
Program

International Space Station	Stepper Motor for Water Quality Monitor Sensor Effect Unit	CA5-C
	Synchronous Motor for Water Quality Monitor Sensor Effect Unit	CA7-B

TOTAL NUMBER OF APPLICATIONS: **252**