



*Put the Power of MSI  
in Your Hands.*

*Measurement Systems, Inc.*

## Products and Experience for Military and Commercial Solutions

MSI, with over 40 years of design experience, is widely recognized as the global leader for human machine interface solutions. We are ISO-9001:2000 registered and a Lean Enterprise company. Our impressive assortment of high integrity controls and systems have made us the supplier of choice for many of the world's leading manufacturers.

### Custom Designed Products/Systems for HMI Solutions

- Timely, Cost Effective
- 3D CAD
- Rapid Prototyping
- Qualified/Certified for Flight Critical and other severe requirements
- Human Factors Engineering Experts

### Build to Print/Specification Solutions

- Improve Performance/Reduce Costs

### Reverse Engineering Solutions

- Hi Fidelity Simulation
- CAT Scanning/Stereo Lithography/3D Modeling/Laser Scanning

### Standard Products for HMI Solutions

- Products are suitable for Industrial/Commercial as well as non-classified Military applications
- Building Blocks for many custom applications
- Joysticks, Control Grips, Trackballs, Systems

## Standard Products

### Miniature Force Joysticks

- 462 Series 2-axis subminiature Joysticks
- 465/467/469/470 Series 2-axis miniature Joysticks
- 475/485 Series miniature Joystick/Designators

### Fingertip Displacement Joysticks

- 501 Series 2-axis Hall Effect (New) Joystick
- 520/523 Series 1-axis Potentiometer Joysticks
- 521/531 Series 2-axis Potentiometer Joysticks

### Large Force Joysticks

- 430/436 Series Stiff Sticks
- 446 Series with Grip

### Control Grips

- 1505 Series Aluminum Ambidextrous
- 1515 Series Aluminum Large
- 1600 Series Plastic Ambidextrous

### Large Displacement Joysticks/Hand Controls

- 541 Series 1-axis Potentiometer Joysticks
- 540/542/546 Series 2-axis Potentiometer Joysticks
- 502/503/504 Series 2-axis Hall Effect Joysticks (New)
- 544/547 Series 3-axis Potentiometer Joysticks

### Trackballs

- XRT Series Desktop Trackballs
- 621/622/625/626 Series Sub-Panel Trackballs
- MagTrak™ Series Trackballs (New)

### Interfaces (For all Products)

- USB/CANBus/Serial (RS232,RS422, RS485)/PS2/1553/Firewire/Spacewire

● ● ● **Simulation** ● ● ●



MSI is a world class leader in simulation controls for high fidelity applications that require the same form, feel and function as the tactical controls used on the actual platform. The following is a sampling of the various platforms and programs that use MSI simulation controls:

**Aerospace**

- Joint Strike Fighter (JSF)
- F22 Raptor
- F16 Falcon
- F15 Eagle
- F18 Hornet
- Distributed Mission Trainer (DMT)
- Predator
- A10 Warthog
- P3 Maverick/SLAM
- S3 Viking
- C130
- C17
- Av-8B Harrier
- A-6E Intruder
- EA-6B Prowler
- RAH-66 Comanche
- AH-64A Apache
- AH-64D Longbow
- UH-60 Blackhawk
- CH-47D Chinook
- OH-58D Kiowa Warrior
- SH-2G Super Sea Sprite
- Nimrod
- Eurofighter
- Hawk
- Sea Harrier
- AVCATT
- Flight School XXI

**Fighting Vehicles**

- Stryker LAV
- LAV 25
- Future Combat Systems (FCS)
- CCTT
- UKCATT
- M1A1
- M1A2 Abrams
- M1A2 SEP
- M2 Bradley
- M2 ODS
- M2A3
- M3A3
- M60
- Crusader
- RECCE
- Grizzly
- Future Scout
- MRAV
- Singapore V20
- Korean K-9
- Challenger
- CV-90
- AAV



*F15 Throttle*



*F16 Stick & Transducer*



*F18 Stick*



*JSF Throttle Grip*



*RAH-66 Comanche Side-Arm Controller*

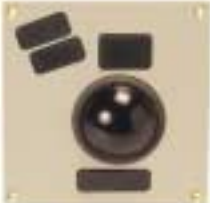
● ● ● **Naval & Air Defense** ● ● ●

MSI provides high integrity naval and air defense systems for any mission. Our ability to offer ergonomic solutions that can meet the toughest military standard is our specialty. Applications include Hands-On Throttles and Sticks (HOTAS), weapons controls, missile controls, submarine controls and high integrity cursor controls. The following are some of the naval and air defense platforms and programs which use MSI products or systems:

- Nimrod
- NSSN Submarine
- Subics
- Q70
- Photonic Masts
- EOSS
- P3 Maverick
- S3 Viking
- EA-6B Prowler
- Super Lynx & Lynx
- SH-2G Super Sea Sprite
- JSF
- B1B
- B52
- Navy Seals (ASDS)
- Hawk
- AH-1 Cobra
- C130
- KC135
- Eurofighter
- Sea Harrier
- Phalanx
- Mirage
- Pilatus
- Merlin
- Harpoon
- Space Shuttle
- Blimp
- U-2
- Eurocopter Tiger (Korea)
- International Space Station



*P3 Maverick Grip*



*Q70 Trackball*



*Space Shuttle Rotational Control*



*3 Axis Electronically Damped System*



*NSSN Submarine Control*



*Prowler Cursor Control*



*Nimrod RAP Panel*



● ● ● **Fighting Vehicles** ● ● ●

MSI is a world class manufacturer of battle worthy controls for the U.S. and foreign fighting vehicles markets. Our offerings include Commanders, Gunners and Drivers controls along with a variety of other vetronic products and systems that meet and exceed the environmental and performance requirements necessary to carry out a successful mission. The following is a list of platforms and programs for fighting vehicles, which use MSI battle worthy controls and products:

- Stryker, Brigade Combat Team
- FCS, Future Combat Systems
- Crusader
- M1A2 Abrams
- LRAS3
- LAV 25
- RECCE
- Grizzly
- MRAV
- Singapore V200
- AAV
- Korean K-9
- ITSS
- Knight
- BIHO
- CV-90
- LAVAD/Marines
- LOSAT
- Wolverine
- Type 90 (Japan)
- VBCI
- P-BISA



*Stryker Cupola Control*



*Hall Effect Control ITSS Marine LAV*



*NLOS Stiff Stick Hall Effect Joystick*



*Remote Weapon Station Grip*



*LRAS3 Grip*



*Future Combat System Control*



*Stryker ATGM Control*



# Unmanned Vehicles

MSI is a proven leader and innovator in the design and manufacture of flight controls, payload controls, and custom control panels and systems for many UAV, UGV, and ROV applications. With the recent U.S. Congressional directive to increase the percentage of unmanned vehicles in use by the armed services, MSI will continue to support future unmanned vehicle programs by offering innovative ideas, and forming productive teaming arrangements.

- Predator
- UCAV
- A160 Hummingbird
- Fire Scout
- Eagle Eye
- Pioneer
- Hunter
- Hermes
- VTUAV
- TUAV
- ENS II
- Sonsub
- U.S. Navy TCS (Tactical Control System)
- Guardian
- Dragon Warrior

*Predator Flight Control*



*Universal Soldier Control*



High Integrity Industrial/Commercial

MSI participates in a wide variety of industrial and commercial applications that require reliable hand controls at reasonable prices.

- Sophisticated Medical Applications
- Construction equipment
- Wheelchair
- FAA ATC trackballs (STARS)
- CNC controls
- Material processing equipment
- FLIR systems
- Amusement park rides
- University projects
- Movie making equipment



Mini Joysticks



iBOT Wheelchair Joystick



STARS ATC Trackball



CANBus Interface Technology



FLIR/Multi-functional Control



STARS ATC Panel Mount Trackball

...got an idea?



*Contact Us Today for More Information*



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