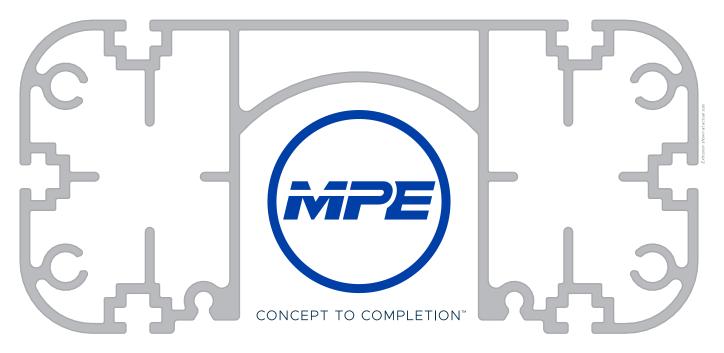


MODULAR | ADAPTABLE | CUSTOMIZABLE for HEALTHCARE





SUPERIOR DESIGN • HIGHEST STANDARDS
ROBUST CONSTRUCTION • NEVER COMPROMISE



LARGEST CUSTOM MEDICAL CART MANUFACTURER IN THE USA!



LOWER COST | LOWER RISK | FASTER TIME TO MARKET



MPEDESIGN

SERVICE LEVEL

Mechanical Engineering
Industrial Design
Human Factors
Systems Engineering
Program Management
Regulatory Compliance
Dfx - Design for
Excellence

PROTOTYPE

Custom Component
Fabrication
Powder Coating
Silk Screening
Sub-Assemblies



High Level Assemblies
Complete System
Assemblies
ISO 5 Controlled
Environment Cell



Custom Medical Carts MACH - Off Shelf Medical Cart components



Quick Turn Proto Services
Proof-of-Concept
validation
Prototype Development



About MPE:

MPE-Inc is a leading design and manufacturing partner to healthcare and technology OEMs, leveraging core competencies in product design and engineering, high mix / low volume manufacturing, quality systems and 3PL services. For more than 40 years, MPE has successfully serviced an impressive list of blue-chip medical device and technology OEMs, leveraging a vertically integrated business model that offers its growing customer base "Concept to Completion" solutions. MPE-INC is headquartered in Milwaukee.



Program Overview Outline

We believe every life enhancing medical technology should never sacrifice clinical utility and workflow compatibility in the procedure room and other critical points of care. In addition, medical device OEMs are faced with constrained resources, increasing costs, and time to market pressures. Developing custom medical device carts are an expensive and lengthy process often thought of late in the product development process. Yet they are integral of the clinician and patient experience.

MPE, the largest custom medical cart manufacturer has rethought the value stream necessary to commercialize and mobilize medical science. We have added to our full suite of engineering and manufacturing services by offering a broad set of modular components that can be leveraged for medical device cart design that deliver OEM's lower cost, lower risk and faster time to market.

Introducing MPE's all new MACH Series

Modular in architecture

- Tooled modular components to create unique cart configurations
- Wide array of accessories to support your specific workflow
- Unlimited configurations accommodate >95% of medical devices

Adaptable to your medical workflow

- Built for medical devices used in the procedure room & other critical points of care
- Optimized for human factors and ergonomics
- Designed in collaboration with medical professionals to optimize wide array of medical workflows

Customizable so you don't compromise

- Leverage MPE's design and engineering team for your custom needs
- In-house fabrication, sourcing and assembly of your custom components
- Custom powder coating to maintain your brand integrity
- Screen print your logo, graphics or instructional information

Healthcare focused

- Leveraging 40+ years of healthcare design experience
- Hygienic design for easy cleaning and infection prevention
- Designed for clinicallyrelevant support of medical device setup and usage, and for efficient storage and transport
- Meets applicable medical regulatory standards

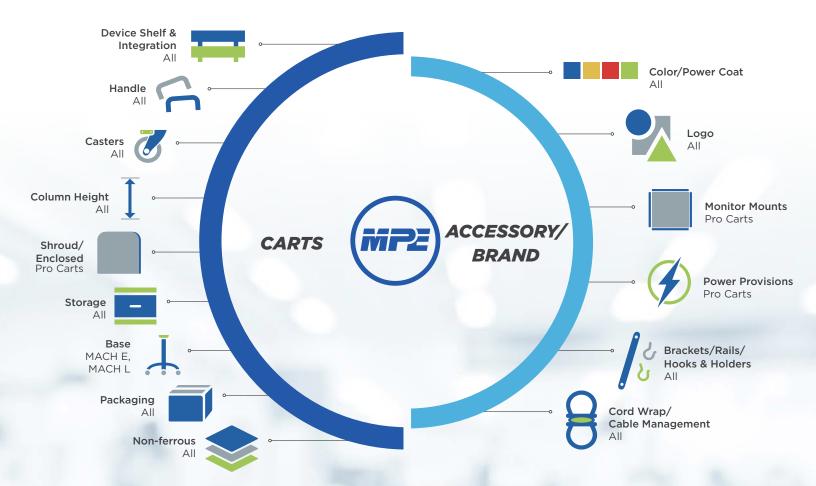






CUSTOMIZATION - Leverage MPE for exactly what you need

MPE is the largest custom cart manufacturer in the USA. We have vertically integrated product development and design, fabrication, sourcing and inventory management services. The modular aspect of the MACH series provides a diverse foundation for a variety of workflow needs. Our customization service goes further to provide the exact solution you need for your business, device and brand.





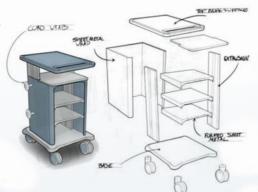
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Utilize our Product Development and Manufacturing Expertise

Limitless design possibilities to realize your unique device requirements, brand strategy, workflow, or use case. Our expertise encompasses:

- Industrial Design
- Human Factor Analysis
- · Design Engineering
- Custom Fabrication
- · Global Sourcing





1.157e-001

6.311e-002

3.155e-002 2.104e-002



Maintain Your Brand Integrity

Never sacrifice the brand recognition that you have carefully cultivated. Our in-house capabilities can customize the look and branding of your device.

- Screen printing for logos, callouts and other design features
- Durable, medical-grade powder coating for custom colors and textures.





Customize your business model

MPE's Concept to Completion model aligns to your business needs and manages the product life cycle as it evolves to your changing needs.

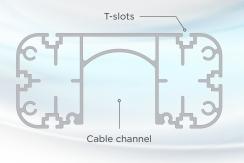
- · Project management of custom configurations
- Final integration and test of complete product ship directly to end user 3PL service;
 - Custom packaging to ship products knocked down or fully assembled
 - Efficient international shipping options





PRO CARTS

The Pro Carts are high quality, robust medical device carts designed to handle extreme working conditions in the procedure room, as well other demanding clinical workflows. The Pro series includes a multitude of modular components that accommodate more than 95% of medical devices and their associated equipment. These carts also include design features so that MPE can easily customize the carts to meet your specific needs and look.





- Largest cable channel in the industry
- Cable routing without tools or disassembly
- Optional integrated power strip
- Customizable to carry power supply



Greatest variety of modular components and customization

Modular Components

Storage: Drawers / Shelves / Baskets

Clinical Support: IV poles / Tank brackets / Equipment mounting rails

Workflow: Handles / Cable wraps / Casters

Technology Support: Monitor arms / Integrated power strip

Robust design for heavier devices and critical workflows

- Extruded and cast aluminum components
- High payload capacity
- Made with high grade die cast aluminum with a medical grade powder coat finish for high durability and wear resistance
- Multiple mounting locations offer design flexibility for accessories and custom items

Customizable

T-slots for attaching custom components Cast holes to create attachment points

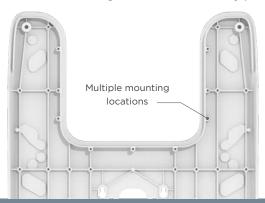
Base customization for power supply & battery

MACH-E has customizable width

Powder coat color

Branding

MPE design team can create any possibility!





FEATURES & BENEFITS:

- Modern, refined architecture for light to medium sized medical devices and elegant configurations
- Single column design creates a flexible platform for efficient workflows
- Modular components and custom options provide versatility
- Zero compromise in workflow compatibility, clinical utility and branding
- Superior cable management

APPLICATIONS:

Ventilation, Ultrasound, Diagnostic, Cardiology



Provision for IV pole

& other accessories

Max usable space

• 15.75"w x 15.5"d

Handle

T-slots







ECO CARTS

The Eco Series was designed to offer quality and robustness at an economical price. Like the Pro Series, Eco can handle extreme working conditions in the procedure room, as well other demanding clinical workflows with accessories. These carts also include design features so MPE can easily customize the carts to meet your specific needs and look.



Quality & robustness at an economic price

- Extruded and cast aluminum components
- · Made with high grade cast aluminum with a medical grade powder coat finish for high durability and wear resistance
- Multiple mounting locations offer design flexibility for accessories and custom items

Modular components and custom options available

Modular Components

Storage: Shelves / Baskets

Clinical Support: Tank brackets / Equipment mounting rails

Workflow: Handles / Cable wraps / Casters

Customizable

T-slots for attaching custom components

Device shelf

Handles

Various mounting brackets

Custom sheet metal base

MPE design team can create any possibility!



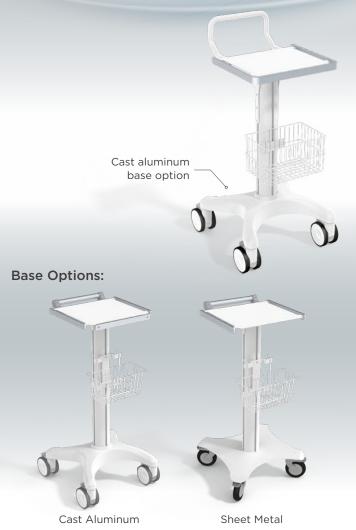
LITE CART

FEATURES & BENEFITS:

- Robust and versatile architecture in a cost effective package
- Multiple base options available:
 - Die cast aluminum base for high demand application
 - Customizable fabricated base offers flexibility at lower cost
- Accessories and custom options provide additional flexibility and versatility
- Zero compromise in workflow compatibility, clinical utility and branding

APPLICATIONS:

Ventilation, Diagnostic, Cardiology







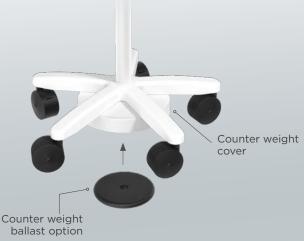
ROLL STAND

FEATURES & BENEFITS:

- Designed to simplify medical equipment transportation
- · Reduced footprint & improved maneuverability
- Accommodates a wide selection of small to medium size medical devices and configurations
- Medical grade 5" dual casters









ACCESSORIES



MONITOR ARMS

Support monitors of various sizes, orientations and with different options for built in keyboard tray and dual arm capabilities. Capable of articulating in various heights and positions to accommodate necessary procedural workflows. Easy repositioning with one hand for maximum flexibility and ergonomic comfort. Monitor arms fold to limit space during travel or storage.

SPECIFICATIONS:









Max Extension Range **Vertical:** Horizontal:

Load Capacity:

Finishes

VESA Compatibility

5.30" N/A Supports up to 30lbs (13.6 kg) monitor Flat White 75mm & 100mm VESA adapters included

Post

Single Monitor Short

19.75" Supports 10-23 lb (4.5-10.4 kg) monitor Flat White

9.5"

75mm & 100mm VESA adapters included

Single Monitor Standard

24" Supports 7.5-25lb (3.4-11.3 kg) monitor

16"

Flat White 75mm & 100mm VESA adapters included

Monitor Arm Dual

5.3 26" Supports 20lb (9.0 kg) monitor Flat White

75mm & 100mm VESA adapters included

	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Monitor Arm, Single Monitor Post	23563-926	✓	✓	/		
Monitor Arm, Single Monitor Short	23564-613	✓	✓	✓		
Monitor Arm, Single Monitor Standard	23563-780	✓	✓	✓		
Monitor Arm, Dual	23563-914	✓	✓	✓		



KEYBOARD TRAY OPTIONS

The keyboard tray can accommodate various keyboard sizes. Its designed with formed in wrist support for ergonomic advantages. Choose from direct mount, under shelf, and monitor arm mount options that best fit your needs.







Keyboard Tray

Physical Dimensions:
 Usable Space:
 Load Capacity:
 Material:
 Finish:
 Assembly:

17.1" W x 16.20" D x 5" H
15.50"W x 7.00" D
10 lbs
Steel
Powder coat
Direct mount to column

Keyboard Tray Undermount

17.5" W x 10.8" D x 3.7" H
15.00" W x 7.00" D
10 lbs
Steel
Powder coat
Direct mount under shelf

Single Monitor w/ Keyboard Tray

17.3" W x 4.5" D x 7.3" H

Vertical Range: 18"

Horizontal Range: 27"

Supports 6-23lb (2.7-10.4 kg) monitor

Powder coat

Attaches to column

	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Keyboard Tray	1906161	/				
Keyboard Tray Undermount	1907031	✓	✓	✓		
Monitor Arm, Single w/Keyboard Tray	23563-782	✓	✓	✓		



MONITOR MOUNT BRACKET SINGLE

Single Monitor Post creates a simple secure attachment point for a monitor on top of the column. The post has one rotation point for adjusting the display at different angles and can be extended at heights within a 5.3" range for optimizing usability.

SPECIFICATIONS:

Physical Dimensions:

Single: 2.7" W x 4.25" H

Load Capacity: Supports up to 30lbs (13.6 kg)

50" & under monitor

Materials: Aluminum Finishes: Flat White

Assembly: Attached to side of column

MONITOR MOUNT BRACKET DUAL

Monitor Mount Bracket secures post to the side of the column.

SPECIFICATIONS:

Physical Dimensions:

Dual: 2.5" W x 2.7" H

Load Capacity: Supports up to 30lbs (13.6 kg)

50" & under monitor

Materials: Aluminum Finishes: Flat White

Assembly: Attached to side of column



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Monitor Bracket, Single	1911105	✓	✓			
Monitor Bracket, Dual	1904117F	✓	✓			



BALLAST WEIGHT PLATE KIT

Weight plates added to underside of base create a lower center of gravity to decrease tipping. Some systems may be more at risk to tip due to workflow requiring monitor arms in extended positions. Ballast weight plate kits come in set of 2, 4, and 6. If there is a concern with tipping, MPE can provide analysis to see if ballast is required.

SPECIFICATIONS:

Physical Dimensions: 7.41"W x 22.00"D

Assembly: Attached underside of base

Weight: 4.8lbs per plate

28.8 total of 6 plates

Material: Steel



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
2 Plate Kit	1911115	✓	/			
4 Plate Kit	1911114	✓	/			
6 Plate Kit	1905181	✓	✓			



BASE SHROUD

Create more shelving space for heavy duty devices or equipment for MACH-1 and MACH-2 configurations with a base shroud that covers the opening in the base. This easily cleanable powder coated surface sits slightly below the top of the base provides a small edge for containment.

SPECIFICATIONS:

Physical Dimensions: 15.94" W x 11.22" D x 1.62" H

Usable Space

Load Capacity: 150 lbs



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Base Shroud	1911076	✓	/			



BASKET KITS

Baskets are a common accessory for medical carts used in various healthcare settings. Baskets can be attached to the front and back of cart columns to provide additional storage capacity.

SPECIFICATIONS:

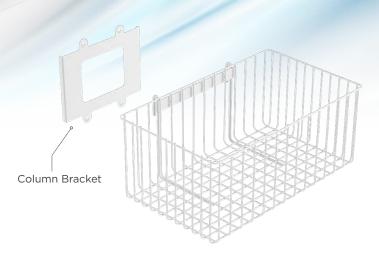
Basket Kit, 19x11x8:

Storage Dimensions: 19 "W x 11"D x 8"H

Material: Steel wire Finish: Powder coat

Assembly: Attached to basket

hanger bracket that connects to column



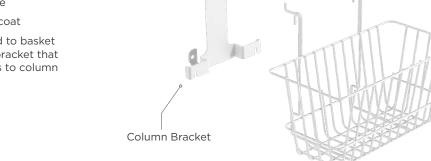
Basket Kit, 12x6x6:

Storage Dimensions: $12 \text{ "W} \times 6 \text{"D} \times 6 \text{"H}$

Material: Steel wire Finish: Powder coat

Assembly: Attached to basket

hanger bracket that connects to column



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Basket Kit 19 x 11 x 18	1911106	✓			✓	
Basket Kit 12 x 6 x 6	1911107				✓	
Basket Kit						✓



BED RAILS

A versatile component, Bed rails can be used for a variety of applications. Mounted to the underside of shelves on either side or front for additional handle locations or clamp mount points for different accessories.

SPECIFICATIONS:

Bed Rail, Single Column:

Load Capacity: 20lbs.

Material: AluminumFinish: Clear anodized

Assembly: Attached underneath shelf



Bed Rail, Dual Column:

Load Capacity: 20lbs.

Material: Aluminum

Finish: Clear anodized

Assembly: Attached underneath shelf



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Bed Rail, Single Column	1911089	✓			✓	
Bed Rail, Dual Column	1911091		✓			



CORD WRAP KIT

A versatile component, cord wraps can be used for a variety of applications.

SPECIFICATIONS:

Cord Wraps 4 Pack:

Physical Dimensions: 2.25" diameter

Material: PolycarbonateFinish: Colors vary

Assembly: Attach to all sides of column in

T-nut slots





	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Cord Wrap Kit	1911094	✓	/	✓	/	



CROSS BAR DUAL COLUMN

The cross bar designed for the MACH-2 creates a bridge connecting the two columns at the top. It serves as a configurable mounting platform for other components, such as a monitor mount that can be fixed along the width of the cross bar. A smooth look that sits flush with the top of the columns.



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Cross Bar Dual Column	1911077		✓			



FOOT SWITCH BRACKET

Foot switch brackets are universal storage holders for foot switch devices. Attaching in open slots along the length of the column.

SPECIFICATIONS:

Foot Switch, Single Column:

Physical Dimensions: 5.96"W x 2.63"D x 3.97"H

Material: Steel

Assembly: Attached to column T-Nut slots



Foot Switch, Dual Column:

Physical Dimensions: 4.00"W x 2.63"D x 3.97"H

Material: Steel

Finish: Powder coat

Assembly: Attached to column T-Nut slots



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Foot Switch Kit, Single Column	1911083	✓				
Foot Switch Kit, Dual Column	1911085		/	✓		



PC HOLDERS

PC holders are adaptable to different sizes of computers. The width can be adjusted with two threaded knobs that can slide along two slots increasing or decreasing the containment space.

SPECIFICATIONS:







PC Holder Kit, Small 2"-3"W

Material: Finish: Assembly: Steel
Powder coat
Attaches to column

PC Holder Kit, Medium 3"-5"W

Steel
Powder coat
Attaches to column

PC Holder Kit, Large 5"-7.5"W

Steel
Powder coat
Attaches to column

	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Small	1911113	✓	✓	✓		
Medium	1911109	✓	✓	✓		
Large	1911110	✓	✓	✓		



POWER STRIP KITS

Standard IEC power strips come in 4 or 6 outlet plugins. These contribute to supreme cable management that allow multiple devices to be sourced from one power outlet. Keep plugged-in outlets out of sight by storing power strips inside the electrical box assembly where device cables are fed down from the column cable channel.

SPECIFICATIONS:





4 Outlet Power Strip

Physical Dimensions: 134.5mm

Ratings Current: Voltage: Frequency:

Certifications:

Material:

Appliance inlet/-outlet:

Assembly:

134.5mm W x 44mm D x 37mm H

10A 100-250 VAC 50/60Hz

RoHS compliant per Directive 2011/65/EU (RoHS II) and its amendment 2015/863/EU (RoHS III) REACH compliant per Regulation (EC) UL certified or recognized

Housing, Thermoplastic, Black, UL 94V-0

C14 acc. To IEC 60320-1, / F acc. To IEC 60320-3 UL 498 CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 C, 10A, Protection Class I

Can be attached along sides of columns or inside ebox

6 Outlet Power Strip

225mm W x 29mm D x 40mm H

10A 100-250 VAC 50/60Hz

RoHS compliant per Directive 2011/65/EU (RoHS II) and its amendment 2015/863/EU (RoHS III) REACH compliant per Regulation (EC) 1907/2006 UL certified or recognized

Housing, Thermoplastic, Black, UL 94V-0

C14 acc. To IEC 60320-1, / F acc. To IEC 60320-3 UL 498 CSA C22.2 no. 42 (for cold conditions) pin-temperature 70 C, 10A, Protection Class I

Can be attached along sides of columns or inside ebox

	PART NUMBER	M-1	M-2	M-E	M-L	M-R
4 Outlet Power Strip	1911093	✓	✓	✓		
6 Outlet Power Strip	1911111	~	/	/		



TANK BRACKET KITS

Tank kits can secure compressed gas cylinders used in a variety of medical applications. Standard tank kits fit cylinder D & E sizes and can be mounted anywhere along the column. Tanks secured by a hook and loop strap. Polyethylene foam strips line the inside of bracket. Custom sizes available upon request.

SPECIFICATIONS:

SINGLE Tank Bracket Kit D & E Size:

Physical Dimensions: 4.7"W x 4"D x 12.89"H

Material: Steel

Finish: Powder coat

Assembly: Attached to column T-Nut slots



Dual Tank Bracket Kit D & E Size:

Physical Dimensions: 4.7"W x 4"D x 13.5"H

Material: Steel

Finish: Powder coat

Assembly: Attached to column T-Nut slots



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Single Column Tank Bracket Kit D&E	1911079	✓		✓		
Dual Column Tank Bracket Kit D&E	1911081		✓	✓		



STANDARD & LARGE DRAWER

Security and easy access to contents with self closing drawer slides. Two sizes, standard and large, attach directly under shelves enabling modular approach for storage space requirements. Plastic drawer face provides smooth and easy to clean surface.

SPECIFICATIONS:

MACH 1:

Physical Dimensions

Standard: 16.45"W x 14.30"D x 3.20"H **Large:** 16.45"W x 14.30"D x 6.70"H

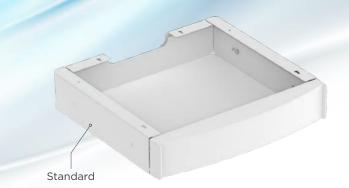
Load Capacity: 10 lbs.

Material: Steel

Finish: Powder coat

Assembly: Fully assembled drawer attaches

to underside of shelf



MACH 2:

Physical Dimensions

Standard: 16.45"W x 16.93"D x 3.20"H

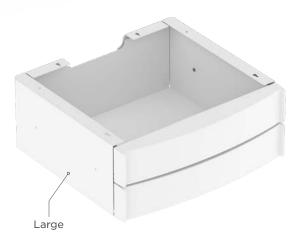
Large: 16.45"W x 16.93"D x 6.70"H

Load Capacity: 10 lbs. Material: Steel

Finish: Powder coat

Assembly: Fully assembled drawer attaches

to underside of shelf



	PART NUMBER	M-1	M-2	M-E	M-L	M-R
Standard MACH 1	1812015	✓				
Large MACH 1	1911074	✓				
Standard MACH 2	1904119		✓			
Double MACH 2	1911072		✓			



