

HI-Pinnacle

FEATURES & SPECIFICATIONS

HOWARDTM
MEDICAL

www.howard-medical.com | 877.856.6441



We've put the pieces
together
superior technology integrated
with the elements of skilled
healthcare



APPLICATIONS

Howard Medical carts are the mobile computing solution for applications including:

ACUTE PATIENT CARE	LONG TERM PATIENT CARE	MEDICATION ADMINISTRATION
EMERGENCY ROOM	PACS	RESPIRATORY
PHLEBOTOMY	ELECTRONIC MEDICAL RECORDS	SURGERY

IMPROVED WORKFLOW

Enhance workflow and efficiency by teaming the HI-Pinnacle cart with our Transfer Cart or Med Hub.

Thanks to our innovatively designed, interchangeable drawer system, you can move medication from the pharmacy to the patient floors easily with the Transfer Cart, and store the extra medication-filled cassettes in the locking Med Hub. When ready for a med pass, switch the cassettes over to your HI-Pinnacle for easy transport to patient rooms. One trip to the pharmacy ensures that nurses have the proper medication needed to last the entire day.

future ready

demands on healthcare systems

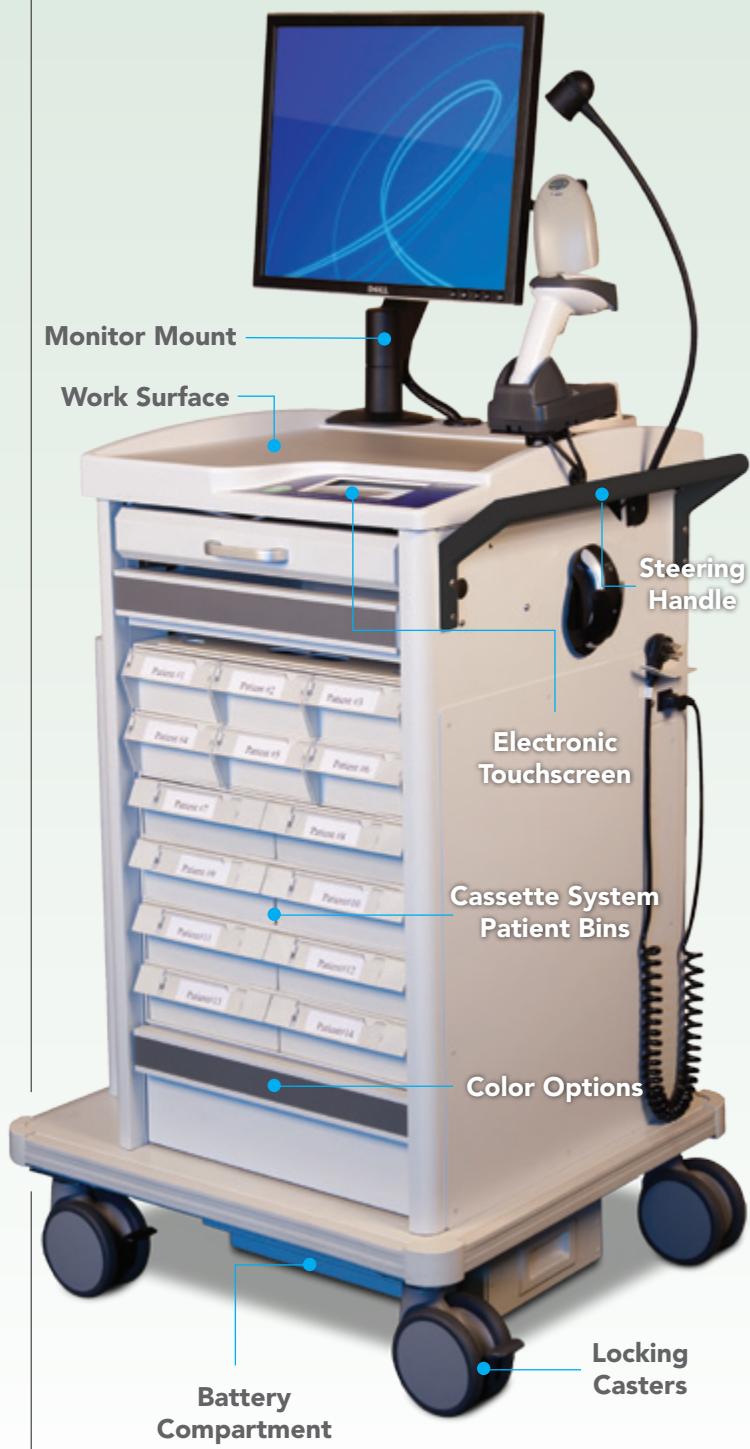
are ever-changing and at Howard we understand that fact. To that end, we've built our Howard cart systems with what we term the "future-ready" concept. This allows you to equip your cart with only what you need now, and then easily and cost-effectively upgrade it in the future as your needs change.

at howard medical,

We've designed our carts with the healthcare setting clearly in mind; with a range of features expressly integrated to ease workloads for nurses and other healthcare professionals, as well as enhance patient care. Engineered to meet the exacting requirements of the healthcare industry, and built for durability, our HI-Pinnacle cart makes the ideal workmate. It can be used in a variety of applications, but it is most commonly used for medication administration. We are confident that you and your staff will appreciate the benefits highlighted in this guide.

WORK SURFACE

Our carts' work surface was designed with both ergonomics and patient care in mind. Measuring approximately 3 ft², the HI-Pinnacle's work surface is one of the largest in the medical industry. It's highly resistant to scratching and fingerprints, and can be easily disinfected with a chlorine bleach solution, or completely removed for autoclave disinfection. It also has a raised edge that surrounds the surface to capture spills and prevent items from falling off onto the floor. The work surface also has a removable document cover which will protect your important documents without taking up valuable work space.



cart features

BIFOCAL FRIENDLY

Understanding the customer's needs is important to us. For this reason, our LCD carts feature a monitor arm that allows the monitor to be moved closer in or farther away, tilted, or otherwise adjusted for optimum viewing. This design benefits bifocal wearers, or anyone with end-of-day eyestrain, and ensures that the critical data you work with is easy for you to see. Reduce overhead glare with just one simple movement, and keep eyestrain to a minimum.



KEYBOARD

While other cart manufacturers provide only a single-centered rail for their keyboard, the keyboard on our cart is supported by a precision ball bearing rail system on both the right and left side, thus increasing stability. Our optional, retractable keyboard tray, which measures approximately 15.875" W x 9.75" D x 1.85" H, accommodates a compact keyboard. During transport and non-use, the mouse fits securely inside the mouse holder for storage.



ERGONOMIC STEERING

While most carts have only one small handle, the HI-Pinnacle's large ergonomically positioned handle provides extra steering power and maneuverability.



cart features

EASE OF MOVEMENT

Moving our HI-Pinnacle carts is an almost effortless task. Thanks to their dual-wheel, low friction, and precision ball-bearing casters it takes only minimal force to move one of our carts. The cart's base sits on four durable 5" casters that swivel 360 degrees (front casters have locking capabilities).

STATUS INDICATOR

The easy-to-read battery status indicator, which is located on the left-hand side of the cart, gives the user real-time updates on the status of the battery. An audible alarm signals when the cart battery's power reserve is low, and can be temporarily disabled using the alarm silence button.



EASY UPKEEP

Mild commercial cleaning solutions and disinfectants, applied with a sponge, damp cloth, or paper towel, are typically all you will need to keep your HI-Pinnacle cart spotless.



TOOL-LESS BATTERY REPLACEMENT

Functional simplicity is at the core of our cart design. As a result, many of the tasks related to cart usage require only a basic introduction and minimal instruction. Changing the battery in a Howard cart is one such task. It's a quick and easy, no-tool process that takes less than 3 minutes—another example of cutting-edge design that saves you time!



PC COMPARTMENT

The HI-Pinnacle's PC compartment, located on the back of the cart, offers protection against heat dissipation and is fully lockable to deter theft and tampering. Measuring 15" H x 15.5" D x 3.125" H, the PC compartment is spacious enough to contain most laptops. The greatest convenience of our HI-Pinnacle carts is the ability for you to continue using the notebook brand of your choice. A docking station and an external on/off switch can even be added to certain models to simplify the computing experience.

CABLE & CORD MANAGEMENT

Years of experience in the healthcare industry have enabled us to master cable management and peripheral compartmentalization. Our unique cart design features an integrated cable management compartment on the rear of the cart where excess cabling and power adapters can be neatly stored in a well-arranged and tangle-free configuration. This design also prevents cables from being accidentally disconnected, or from getting caught on doorknobs or other hospital equipment during transport. The coiled power cord stretches to about 8' in length and is equipped with a hospital grade plug. For added convenience, a storage hook is located at a convenient height to secure the power cord while the cart is in motion.

KEY FEATURES

- Power cord can be easily removed for cleaning or replacement
- Cable management compartment for easy integration of multiple devices
- No excess cords hanging from cart

SIZE MATTERS

At Howard Medical, we understand the diversity and ever changing needs of the healthcare setting.

Because of this, we have designed our carts to provide nurses with the greatest benefit possible. Our HI-Pinnacle carts come in two different sizes: Small and Medium. Although they are similar in many ways, they are not exactly the same. These carts are often used in Veterans Affairs facilities and long-term care facilities because of the large amount of medication they can hold. Both carts are custom configurable and have nearly endless drawer and bin configurations.



SMALL PINNACLE



MEDIUM PINNACLE

options

COLOR OPTIONS

The HI-Pinnacle carts come in two basic colors: Central Office White and Howard Blue. To better suit your needs, we have added many accent colors that you can choose from. See below for our 8 accent color options.

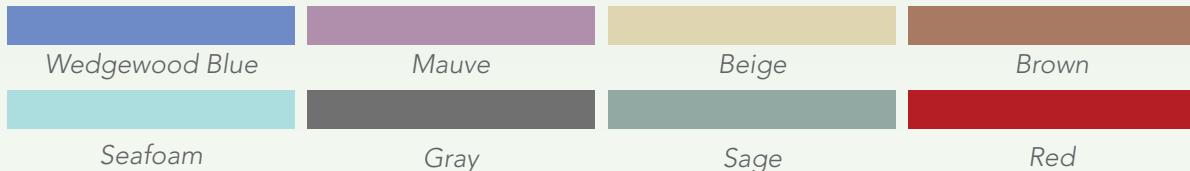
*Accent areas indicated by illustration to the right. ●



Central Office White



Central Office White



ACCESSORIES

To maximize productivity and make your job easier at the same time, we've prepared specialized accessories for use with your Howard cart. Choose from sharps container and IV poles to bar code scanners and cup dispensers, configurable drawer storage, and more.



Bar code scanners

Offer all leading brands including HHP, Symbol, and Welch Allyn



Sharps container

Multiple sizes and brands available
Bracket accommodates most sizes



IV pole



Cup dispenser

Available in small or large sizes



Waste bin



Wire basket

Available in small or large sizes



Sani-wipe holder

Accommodates all models that include appropriate mounting brackets



Hand sanitizer bracket

If your customization needs cannot be found here, we can create a custom design solution for you.

power system options

We designed our HI-Pinnacle carts around a Tripp-Lite brand, hospital grade power system. It's a 3-in-1 unit in which a single modular unit performs the tasks of an inverter, a battery charger and an isolation transformer. And, in the unlikely event of a power system failure, simply remove two panels to access the inverter and perform a swap. One trained technician can typically accomplish a complete power system replacement in less than 20 minutes.

Significant advantages of this modular system include:

1. Proven, high quality performance—our choice was based on Tripp-Lite's upstanding reputation for quality, service, and performance.
2. No need to ship the cart back
3. Easy to service- no need to tip the cart on its back or side to access the most important components. This alleviates the need for two technicians and the possibility of damaging the cart or computer hardware.
4. Minimal training is needed to test or replace a power system.

SLA BATTERY

Howard Medical introduces its new high efficiency power supply system for Sealed Lead Acid batteries. The HC120 from Tripp-Lite provides 85% output efficiency, a 10A charger, and a 120W pure sine wave output.

- **High output efficiency (85% efficiency)**
- **Long runtime- up to 11.2 hours on a 55Ah for typical configurations**
- **High cycle life from battery**
- **1 battery size available- 56Ah (39lbs)**
- **Compliant with UL 60601 standards**
- **Data logging**
- **Multi-level low battery warning alarm**
- **Universally compatible output (120 VAC)**

OR

NEW LITHIUM PHOSPHATE BATTERY

Howard Medical introduces its new power system based on Lithium Iron Phosphate technology. It includes a 40Ah battery that can deliver 2500 cycles (about 10 times that of most SLA batteries) down to 80% capacity at 100% depth of discharge per cycle. The battery is accompanied by our new Tripp-Lite HC150 power system, specifically designed with this battery in mind. It has up to 85% output efficiency, a 20A charger, and a 150W pure sine wave output.

- **Very long battery life- High cycle life**
- **Fast charging (100% recharge in about 2 hrs)**
- **Durable**
- **Safe**
- **Universally compatible output (120 VAC)**
- **Lower cost of ownership**
- **High energy density/Light weight (14lbs)**
- **Recovery from prolonged discharge**
- **Data logging**
- **Multi-level low battery warning alarm**

locking & storage options

With Howard Medical's innovative storage options, you will be sure to get the features you want with the capacity you need.

ADVANCED ELECTRONICS used for medication dispensing. Derived from years of research, this locking system is the most advanced and secure option available and includes an electronic controller with USB computer interface, LCD touchscreen, open and closed position sensors, safety catch locking mechanisms, 500 user IDs and the capability to remotely manage the cart configuration and user IDs. Our Med Manager's software interface displays onscreen graphical controls and drawer status. Howard Medical's Advanced Electronics locking system is equipped with an automatic re-lock feature that is programmable from 1 second to 3600 seconds. Drawers and patient bins can be opened by entering a user ID four different ways: touchscreen, optional touch screen monitor, keyboard or mouse.

An electronic Narc lock can be added to tiers 2, 3, and 4, providing secure storage for narcotics. Access to these double locked drawers requires entry of an additional Narc code. Electronic sensors combined with Med Audit software allow drawer and patient bin openings to be tracked so that supervisors will know who has had access to patient medications and how long individual bins and drawers were open. As an added feature, advanced electronics also has a key override bypass, which will prevent a medication lock-out in case of a computer failure.

SMALL HI-PINNACLE OPTIONS

1-Tier Keyboard Drawer

17"W x 3"H

1-Tier Cassette with 2 Patient Bins

8.25"W

1-Tier Cassette with 3 Patient Bins

5.5"W

2-Tier Cassette with 4 Patient Bins

8.25"W

2-Tier Cassette with 6 Patient Bins

5.5"W

1-Tier Storage Drawer

17"W x 3"H

2-Tier Storage Drawer

17"W x 6"H

3-Tier Storage Drawer

17"W x 9"H

4-Tier Storage Drawer

17"W x 12"H



locking & storage options

STORAGE GUIDE

The Small Pinnacle cart (pg. 10) has 10 tiers of configurable storage space. The first tier is most commonly used for a keyboard drawer. Since the combinations are nearly endless, we have come up with a guide to help you decide which configuration is the perfect fit.

The Medium Pinnacle cart (right) has 10 tiers of configurable storage space on the left side and 6 tiers of configurable storage space on the right side. The first tier on the left side is most commonly used for a keyboard drawer. Since the amount of possible combinations are nearly endless, we have come up with a guide to help you decide which configuration is the best for your staff.



MEDIUM HI-PINNACLE OPTIONS

1-Tier Keyboard Drawer 17"W x 3"H	1-Tier Storage Drawer 17"W x 3"H	1-Tier Storage Drawer 11"W x 4"H
1-Tier Cassette with 2 Patient Bins 8.25"W	2-Tier Storage Drawer 17"W x 6"H	2-Tier Storage Drawer 11"W x 9"H
1-Tier Cassette with 3 Patient Bins 5.5"W	3-Tier Storage Drawer 17"W x 9"H	3-Tier Storage Drawer 11"W x 13"H
2-Tier Cassette with 4 Patient Bins 8.25"W	4-Tier Storage Drawer 17"W x 12"H	
2-Tier Cassette with 6 Patient Bins 5.5"W		

(Left Side)

(Right Side)

software

POWER MANAGEMENT

CLINICAL ASSISTANT Provides the clinician with vital information about the cart power system in a concise, non-intrusive manner. This is designed for use with Power Display software. The primary feature of our Clinical Assistant software is to provide a battery level indicator with a 10-step resolution along with a charge status indicator. This software will also provide messaging logic designed to guide the clinician in proper charging procedures.

POWER DISPLAY Provides the user with a browser based graphical, on-screen interface displaying various parameters of the med cart power system. Functionality includes data display, data logging, event logging, and event based alarms.

POWER SYSTEM REMOTE MONITORING An enterprise-level device monitoring, control and inventory application. This web-based application allows you to monitor and control up to 1000 devices (depending on the license purchased) from a single console. Some of the features include: real-time alarm monitoring, extensive reporting capability including automated report generation and delivery via email, and configurable hierarchy structure to allow you to group devices by location, type or function.

MEDICATION MANAGEMENT

MED DISPLAY Provides the user with a PC-based graphical, on-screen user interface on a personal computer that has been integrated with the cart. The software can also be used for accessing the locked storage compartments on a cart.

MED MANAGER Provides remote management to carts running med display software. It provides the ability for an administrator to manage or maintain user lists and cart settings on any number of med carts within their network.

MED AUDIT Maintains a record of all transactions that occur when the cart is locked and unlocked. The electronic locking system can store up to 500 event records internally, which can then be offloaded to a local computer at predetermined intervals, ensuring that events are not lost. Using the Med Audit tools within Med Manager, these records can be retrieved from the cart's computer and stored in the Med Manager database for subsequent review. The data can be viewed on-screen in custom formatted reports, printed or exported to external files.

professional services

Many organizations don't require the services of a full-time IT coordinator for technology administration; however, the need for some support remains constant. At Howard, we custom fit our services to give you the help you need, when you need it, and without the expense and hassle of hiring (and retaining) in-house support personnel. From a few hours every week to days each month, our technology professionals can devise a plan that is right for your business. Which integration option is right for you? No integration performed by Howard; **In-factory integration**, or **On-site Integration**? You choose.

IN-FACTORY INTEGRATION

- Integration of computing devices, monitors, keyboards, mice, and accessories purchased from Howard Medical.
- Possible integration of additional equipment not purchased through Howard Medical
- Performance testing of integrated equipment and carts prior to shipping

ON-SITE INTEGRATION

- Unpacking the carts
- Integration of computing devices, monitors keyboards, mice, and accessories purchased from Howard Medical.
- Performance testing of integrated equipment and carts

Other professional services we offer include:

- IMAGING
- TRAINING
- PREVENTIVE MAINTENANCE
- REMOVAL OF OLD EQUIPMENT

- MOBILE PRODUCT SPECIALISTS
- CART INVENTORY & STORAGE
- COMPUTER SWAP-OUT
- DATA MIGRATION

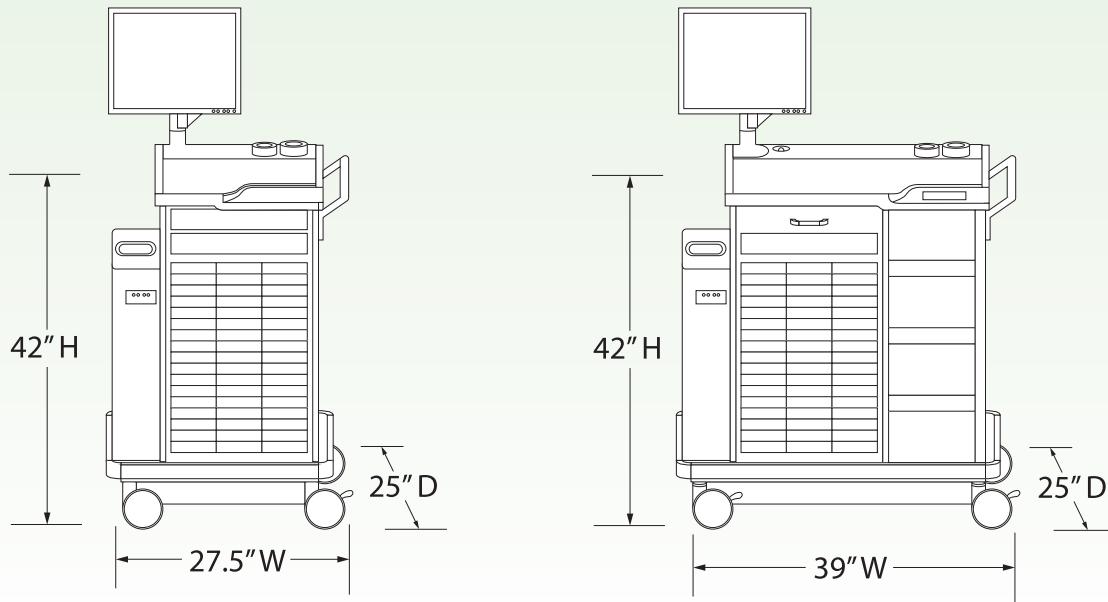
NEW COMPLETE CART SHIPPING

At Howard, we understand how time consuming assembling complicated equipment can be. Our solution—complete cart shipping! That's right. When you purchase a Howard cart, just open the box, roll out the cart, attach the monitor and accessories using the quick connect clips, and your cart is ready to use.



specifications

DIMENSIONS



ELECTRICAL OUTPUT RATINGS

Power system	HC 350	HC 120	HC 150
Voltage	120 VAC, 60Hz	120 VAC, 60Hz	120 VAC, 60Hz
Power	170W continuous std 250W optional max continuous	120W continuous	150W continuous
Type	True sine wave	True sine wave	True sine wave
Output	6x standard N. Amer. outlet (NEMA 5-15R)	6x standard N. Amer. outlet (NEMA 5-15R)	6x standard N. Amer. outlet (NEMA 5-15R)

PHYSICAL

PC compartment	15"W x 15.5"D x 3.125"H
Work surface area (Small and Medium)	1.75ft ² , 3ft ²
Footprint (base) (Small and Medium)	27.5"W x 25"D 39"W x 25" D
Keyboard tray (optional)	15.875"W x 9.75"D x 1.85"H

ELECTRICAL INPUT RATINGS

Power system	HC 350	HC 120	HC 150
Voltage	120 VAC, 60Hz	120 VAC, 60Hz	120 VAC, 60Hz
Fuses	Input 4.0A, min 125 VAC Battery Inverter/Charger: 20A, min 32 VDC Lift Column: 10A, min 32 VDC	Input 4.0A, min 125 VAC Battery Inverter/Charger: 20A, min 32 VDC Lift Column: 10A, min 32 VDC	Input 6.0A, min 125 VAC Battery Inverter/Charger: 30A, min 32 VDC Lift Column: 10A, min 32 VDC
Ground	Earthing termination supplied via power cord	Earthing termination supplied via power cord	Earthing termination supplied via power cord

warranty/f.a.q.

Choosing a warranty option that best fits the equipment demands for a healthcare facility can be an enormous task. At Howard Medical, we try to make your decision an easy one. Each HI-Pinnacle cart comes with a 3-year standard warranty:

3-year standard warranty (3 mechanical / 3 electrical)

For more information about Howard Medical warranties, call us at 877.856.6441

Q: How many patient/storage drawers can the HI-Pinnacle accommodate?

A: With our HI-Pinnacle, there are many possible combinations. Your cart can be configured with as few as 3 patient bins or with as many as 30, depending on the needs of your staff.

Q: Is the HI-Pinnacle cart hard to clean?

A: No. Hard external surfaces make the carts extremely easy to clean and maintain using a variation of bleach, water, and mild commercial cleaners and disinfectants.

Q: Will I be able to integrate future hardware on the HI-Pinnacle?

A: Yes. We realize the need to easily upgrade in the future, so we have engineered technology to assist you in upgrading as needed.

Q: Can I get my carts in a color of my choice?

A: Yes. Our HI-Pinnacle carts come in two different colors: Howard Blue or Central Office White. Since color plays an important role in cart configuration, we have designed several accent colors that you can choose from: Wedgewood Blue, Mauve, Beige, Brown, Seafoam, Grey, Sage, and Red.

Q: How difficult is it to change a battery?

A: Not hard at all. The battery can be changed in under 3 minutes without any tools.

Q: Do I have to use a certain computer with the Howard carts?

A: No. The fact that you can use the computer brand of your choice is one of the really nice features of our HI-Pinnacle carts. Our carts can be integrated with thin clients, notebooks, tablets, and many small form factor computing devices from industry-leading manufacturers such as Howard, Dell, HP, Panasonic, Wyse, and more.



A simple solution to mobile computing

Howard Medical is your total point-of-care solutions provider. Our product offerings include revolutionary medical carts; specialized hardware technologies that are vital to EMR, CPOE, PACS, and other health-related systems. And by partnering with like-minded technology innovators, we also offer rugged notebooks, tablets, and flat panel wall mounts. We provide healthcare personnel with real-world solutions so they can focus on what matters most—patients.

Experience the **Howard Advantage**

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