

Reducing Pathogen Transmission in Hospitals with Holographic Technology



Mobile medication and point-of-care computer carts are indispensable tools in the modern healthcare facility. However, they are also vectors for germs and other infectious agents.

A recent study¹ found that 43% of physical interaction sequences between healthcare providers and their patients involve touching a patient and a mobile medical cart. Other research² concluded that the average computer and laptop keyboards carry over 3.5 million colony-forming units/ square inch – that’s over 20,000 times the bacteria on an average toilet seat.

These studies, and the toll that Healthcare-associated Illnesses take on the average US hospital annually (over \$28.4 Billion),

highlight the importance of sterilizing and disinfecting equipment to reduce the chance of transmission. Even if physicians and staff diligently implement stringent hygiene and infection control protocols, there is another, better, solution: Healthcare Facilities Today states, “One key component of stopping the spread of diseases in healthcare facilities is by minimizing or eliminating surface contact and touchpoints.”

This data sheet explains how our transformative new Holographic Touch™ technology and contactless HoloMed™ line of medical carts, patient monitors and other products protect patients and hospital staff by virtually eliminating surface contact and touchpoints, thereby mitigating the transmission of HAIs.

A new paradigm in Human-Machine Interaction

Holographic Touch™ is a transformative new technology that provides accurate and responsive mid-air interaction without special lighting, glasses, or headgear.

Accurate & responsive

All Holographic Touch systems are accurate to 2mm, with zero latency (response times are 2-5 milliseconds per touch). Anything a user can do on a touch display, iPhone or iPad, they can now do in mid-air: touch, pinch to enlarge, zoom, scroll, or swipe – even with gloves!



HoloMed™ products provide safe and germ-free interaction for Staff, Patients & Visitors

HoloMed products are versatile and can be used in a variety of applications throughout healthcare facilities:

- Use holographic terminals to convert registration systems and interactive hospital maps to germ-free stations
- Retrofit elevators with contactless holographic controls.
- Add NFC readers for germ-free holographic payment at merchant terminals in pharmacies, cafeterias, or the gift shop. Customers can even sign their name in mid-air for authorization.
- Convert thermostats and other manual controls to mid-air hand gestures and turn patient's rooms into contact-free zones.

Holo's products work out-of-the-box.

Connect to laptops or terminals or other CPUs via HDMI and USB cables, and instantly display the images or videos on your device as an interactive holograph.

Holo devices are powered by 12V wall outlets or battery and rechargeable cart systems.

Ultra-bright displays ensure that the Holographic image functions in the dark, under bright lights and in any kind of weather.

Different sizes for different applications

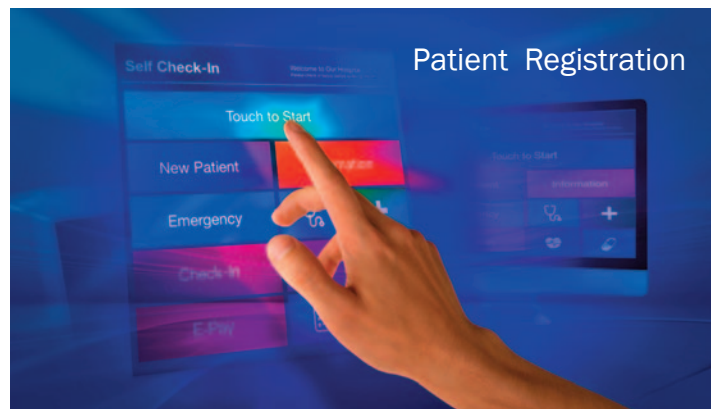
Holo Industries' products are defined by the size of the holographic plates used for mid-air images.

Size (mm) (")	Typical Applications
125mm (5")	Keypads, Thermostats, Entry Systems, Light Switches
200mm (8")	Cafeteria & Pharmacy Payment Terminals, Elevators
250mm (10")	Mobile Carts, Patient Monitors, Surgical Monitors
310mm (12")	Mobile Carts, Patient Monitors, Surgical Monitors
420mm (16.5")	Hospital Maps, Patient Registration
630 mm (24.8")	Promotions, Videos, etc.

Select from a variety of product formats

Holographic Touch products are available as:

- **Demos:** Available in all sizes. Delivered in Pelican cases
- **Components:** OEMs can build their own systems.
- **Inserts:** Complete systems ready to insert.
- **Finished Products:** We will manufacture products on demand.



Summary

Mobile medical carts, medication and computer carts are an essential part of hospital point-of-care operations, improving nurse and doctor efficiency and aid in the delivery of quality patient care. However, this type of medical equipment as well as other technologies such as keyboards, patient monitors, etc., are frequently used and touched by nurses, doctors, and other staff, increasing transmission risks. To preserve patients' health and safety, healthcare providers must routinely implement stringent hygiene and infection control protocols.

At Holo Industries we understand the importance of keeping all medical equipment clean and free of viruses, microbes, and other infectious agents. We also know that the safest way to interact with any surface is not to touch it in the first place. For this reason alone, we believe our innovative pathogen-free Holographic Touch technology and HoloMed products will become a standard in every hospital and clinic. Call us today and be the first facility to convert to germ-free mid-air touch.

1. Interaction of healthcare worker hands and portable medical equipment: a sequence analysis to show potential transmission opportunities. By Chetan Jinadatha, corresponding authors Frank C. Villamaria, John D. Coppin, Charles R. Dale, Marjory D. Williams, Ryan Whitworth, and Mark Stibich.

2. October 13, 2016, CBT Nuggets: Bytes and Bacteria: Exposing the Germs on your Technology.



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