

Touchless Automation is Your Best Defense to Defeat COVID-19



A Whitepaper By

 **Techmetics**
Robotics

Introduction

If you are involved in the operations of a hospital, a clinic, or an assisted living facility, then you are experiencing all of the ways that the COVID-19 pandemic is affecting your facility.

Your staff is anxious about the risks of working closely with the public. Protecting staff with adequate personal protective equipment (PPE) was the first crisis in the pandemic.



Now, you need to manage every other potential transmission vector of the virus within your facility to limit the exposure of everyone in your facility.



Your staff is busy with patients and residents. But meals still need to be delivered, medicines and supplies need to be distributed. Laundry, linens and trash all need to be moved safely through your facility. Rooms need to be cleaned and disinfected between patients.



Let's take a look at what you can do to make your facility safer in the midst of the chaos of the pandemic.



Deploy New Processes That Reduce Transmission Risks

Managing or eliminating the vectors of transmission is paramount to reducing the risks within your facility. You'll need to evaluate all of the processes within your facility in order to do a thorough job of mitigating the risks.

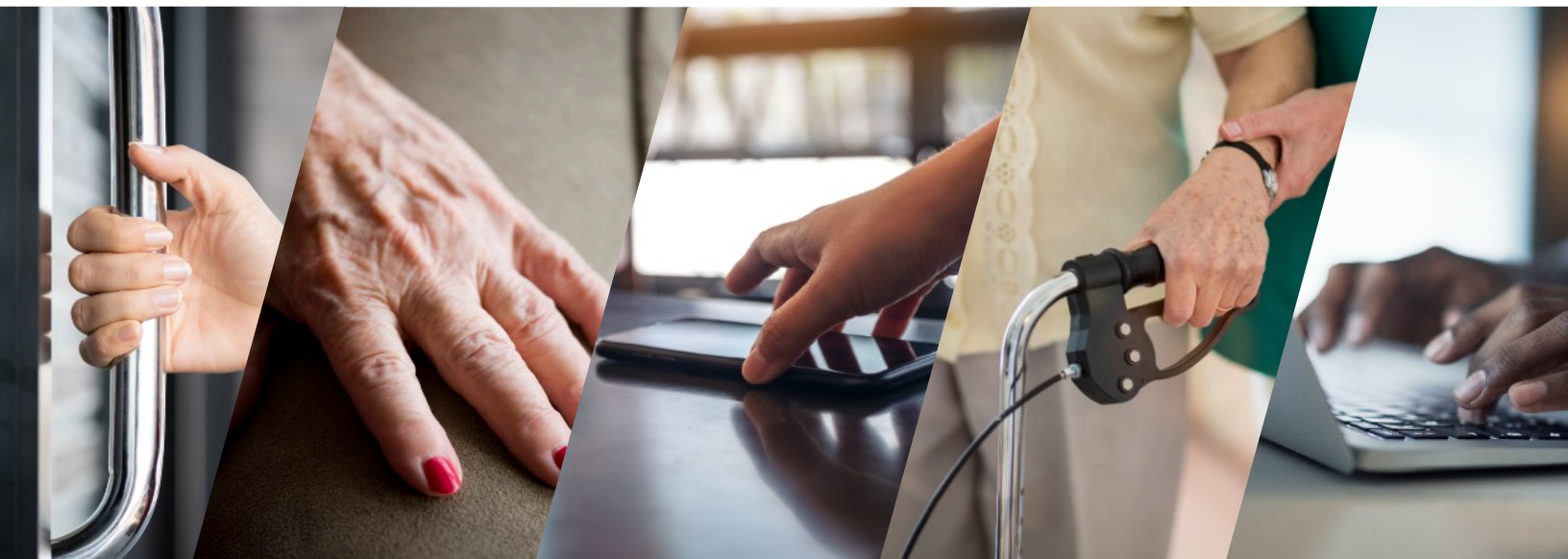
Managing the needs of, and caring for, an at-risk population is a tremendous responsibility.

The CDC has authored guidance on how to improve your healthcare processes during the pandemic.

This whitepaper will look at new automation solutions to help break the chain of transmission to keep staff, patients and residents safer within your facility.

It starts by evaluating all of the things that people touch in your facility.

Door handles. Chairs. Tables. Counters. Desktops. Equipment. Assistance devices. Keyboards. Packages. Phones. Money.



All of these touch points are agents of transmission.

Disinfecting Your Facilities

You already deploy disinfection protocols in your facility. But are you keeping up with the increased demands of the pandemic?

What does it take to improve your level of control? How can you stop the spread of COVID-19 within your facility?

Do you want to:

- Increase the frequency of disinfection?
- Add more rooms or areas to be disinfected?
- Disinfect larger areas?
- Ensure that disinfection is being completed?
- Provide a continuous cycle of disinfection?

There are three use cases where disinfection automation makes economic sense:

1

Large Facilities

2

Facilities with High Room Turnover

3

Facilities Housing COVID-19 Patients

1. Large Facilities

In a large facility it can be difficult to track the disinfection process facility-wide with manual procedures. There will be periods when you have room turnover occurring at multiple places within the facility at the same time. Can you respond to all of these needs?

Adding disinfection automation to the workflow can help your staff to manage the turnover process and ensure adequate coverage and tracking of disinfection protocols.

2. Facilities With High Room Turnover

If you move a lot of patients through your facility, you want to clean/disinfect patient rooms and common areas between each patient, or on a set schedule. Automation ensures that all of this occurs as needed.

Waiting rooms, dining rooms, restrooms and hallways can have continuous traffic throughout the day. Automating the disinfection process ensures that both your staff and clients are always protected.

3. Interfacing With COVID-19 Patients

In high risk isolation or quarantine wards, you've implemented protocols to help isolate patients and keep staff safe. Touchless automation reinforces these protocols and can also help with the flow of food, medicine and materials, to and from isolation wards. By eliminating the touching of cart handles, transmission of any virulent microbes is minimized.

Why is “Touchless” Important?

First, touchless disinfection helps ensure that nasty microbes aren't picked up in one area and inadvertently spread to another area.

Second, touchless disinfection helps eliminate the need to correctly dispose of “biological hazard waste” in the form of wipe clothes, gloves, PPE, etc. This waste can be another vector for transmission.

What is Touchless Disinfection?

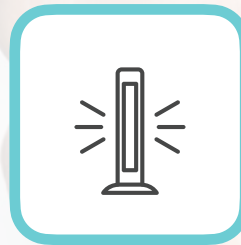
There are two mature forms of touchless disinfection: **Biocide Spraying** and **UV Germicidal Irradiation (UVGI)**.



Biocide spraying involves disinfection through application of an aerosolized biocide. Biocide

spraying can be effective for large open areas where there is a time period with no humans present.

A large dining room is an ideal example of an application for biocide spraying. Deploying a biocide into the dining area during the period between meals, after everyone has vacated the room, ensures that the biocide dissipates safely before anyone re-enters the area for the next meal.



UVGI involves the directed application of a UV light source to surfaces and the surrounding air. This

inactivates viruses and kills other germs.

UVGI works well in smaller areas, like patient rooms, meeting rooms, cubicles, work areas, or other areas that require a quicker and more frequent turnover.

A UVGI disinfection cycle may take 15 minutes or less and the area will then be immediately ready for re-occupancy.

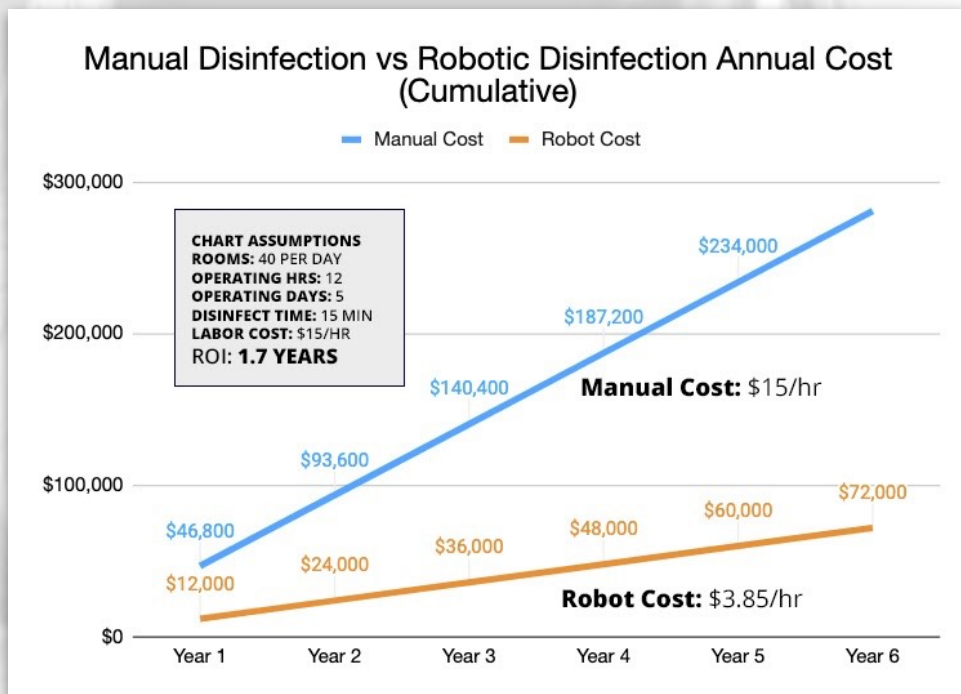
The ROI of Robotic Touchless Disinfection

There is a cost to adding disinfection protocols to your operating procedures.

The advantages of biocide spraying include the capabilities to cover large areas quickly. However, chemical agents bring with it ongoing costs of consumption, and the requirements to safely store and manage the chemical agents. In addition, deploying chemical agents may restrict the disinfection cycles to times when the facility or area of interest is not populated.

The advantages of UVGI include directed application and the ability for immediate habitation following a disinfection cycle. UV light only consumes electricity to operate. Other than scheduled bulb replacement, there are no consumables.

The cost to deploy a UV light disinfection solution pivots on a few pieces of facility data.



You'll need to understand:

1. How many rooms need to be disinfected
2. How many operational hours per day
3. How many operational hours per week
4. Disinfection time per room (average)

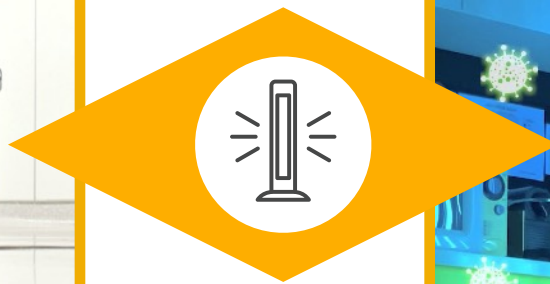
Your Frontline Heroes in the Battle Against COVID-19

Techmetics Robotics has engineered a complete line of touchless pandemic fighting solutions.

Each solution is designed to enable your facility to effectively and conveniently assist in operations with minimal contact and risk of human error.



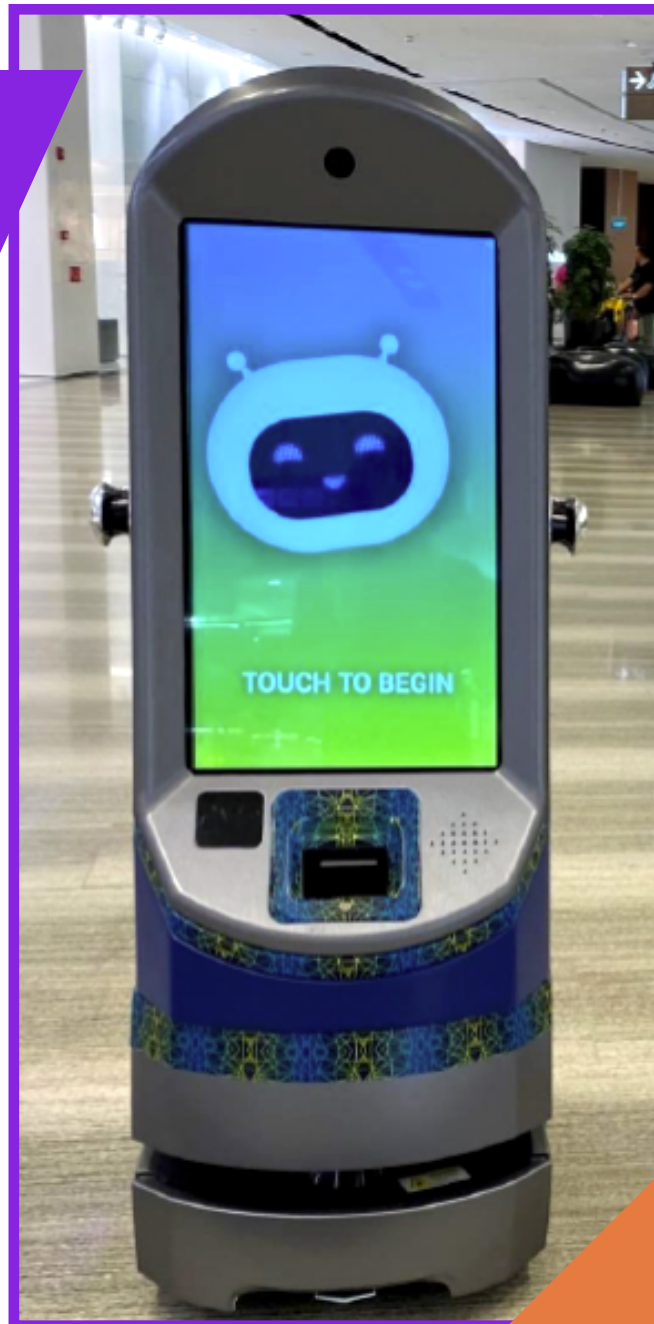
Techi UV is ready to work tirelessly to disinfect your facility and keep it safe for your employees and patients/residents by leveraging the advantages of UVGI. Techi UV autonomously navigates to all of the high touch points in your facility and then safely disinfects them using UV light.



Techi UV calculates the proper disinfection exposure and then scans the immediate area for any humans while the process is occurring. Autonomous disinfection helps ensure that the process is tracked and recorded, and will alert you if any step in the process fails.

Techi Concierge

Techi Concierge is ready to greet patients or visitors at the door, answer their initial questions and guide them to specific areas of your facility. Techi Concierge implements social distancing and helps to keep your staff safe.



Equipped with a thermal camera, **Techi Concierge** can automatically look for visitors or staff who may have a fever. This frees up your human staff members from this task while also enforcing social distancing, mask wearing and identifying “at-risk” residents. It’s a healthy option for everyone moving through your facility.

Techi Butler

Techi Butler is equipped with secure delivery bays. Its role is to deliver items such as meals, lab specimens and medications throughout your facility.

Techi Butler can access the elevator to move between floors, making multi-floor deliveries a possibility. Techi Butler is also equipped with UV lights within each of its delivery bays. This enables disinfection of contained items as they are delivered. Disinfection is an optional process and can be turned off for movement of lab samples (for example).



Techi Butler features touchless operations as it interacts with staff and patients. Through audible prompts and proximity sensors, Techi Butler can open its delivery bay, prompt the recipient to remove an item, and then finish the interaction without the person needing to touch anything other than their item.

Techi Cart

Techi Cart is the workhorse solution to autonomous movement of linens, laundry and trash throughout your facility. Techi Cart can queue both full or empty carts around the facility as part of the workflow.

Techi Cart will pick up a cart in one part of the facility and autonomously move it to another part of the facility. This means that your staff can remain where needed and not have to make the frequent trips to move large carts throughout the facility. This serves as an important isolation element to reducing transmissions for your staff.



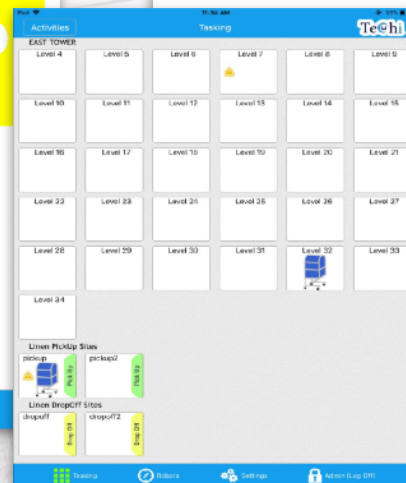
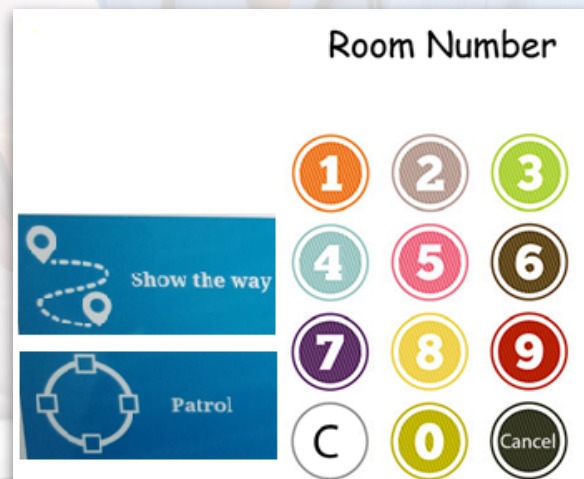
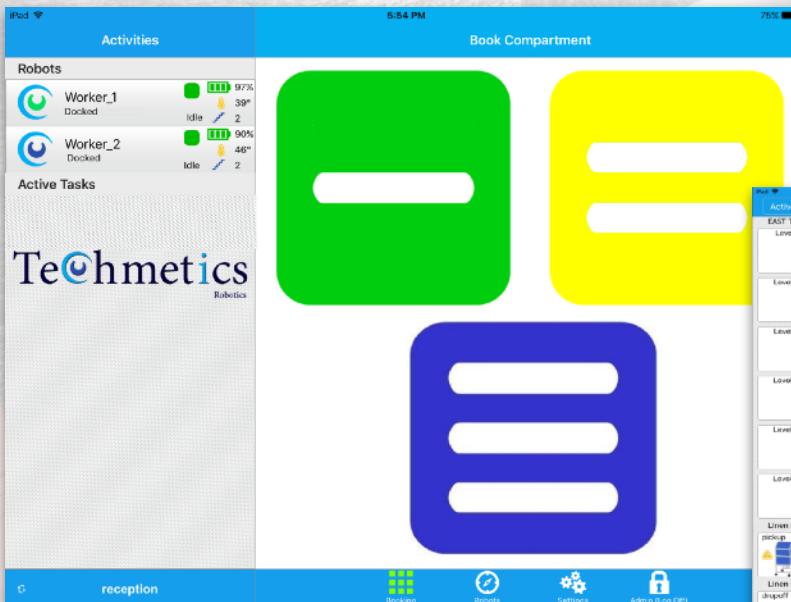
Easy to Learn & Simple to Use

Techmetics solutions track their operations and are easily controlled via smartphone or tablet based applications. Your frontline staff or management team can remotely monitor and control each robot as it moves through its daily tasks.

All of the Techi robots can leverage the elevator controls in your facility to call the elevator and move between floors, during the course of their operations.

Operations include:

- ✓ Requesting a pick up or delivery
- ✓ Tracking delivery
- ✓ Scheduling a disinfection cycle
- ✓ Tracking disinfection completion

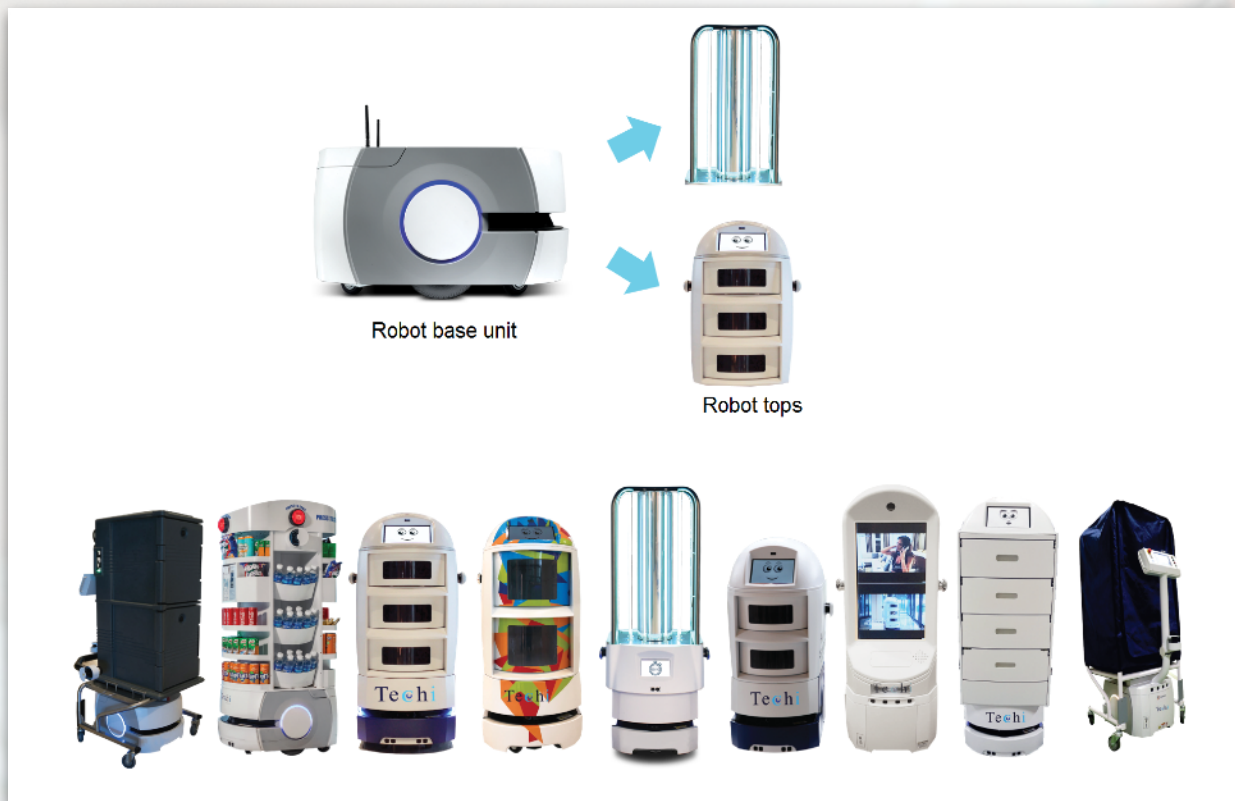


The Techmetrics Robotics Advantage

Techmetrics Robotics has been around since 2012, and has focused on innovations for autonomous mobile robots. Techmetrics Robotics has deployed 100+ systems worldwide. Techmetrics is focused 100% on automating business processes with autonomous mobile robots.

Techmetrics' Robots are modular. This key differentiator means that you can swap out one of the top modules for another if your business needs change in the future.

Need disinfection now, to deal with the pandemic? Start with Techi UV, then swap out the UV solution module for a Butler or Concierge module later when business needs change. Your investment in Techmetrics Robotics keeps working for you.





Ready to See What Techmetics Robotics Can Do For You?

Schedule a demo and see the Techmetics difference.



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