

Project-7: Smart public Restroom

Phase -2: Innovation

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1. Smart Toilets:

According to real estate experts, smart toilets are the most desired devices when it comes to restroom renovations. Top features include:

- Automatic lid
- Seat warmers
- Dual-flush, touchless flush actuators
- Night lights
- Speakers for music
- And more

Smart toilets tend to be more compact, with improved design elements that make them space-saving while remaining comfortable. This feature makes the toilets easier to clean and keep clean. Although, self-cleaning is another feature of a smart toilet.



2. Occupancy Monitoring :

These smart monitors let people know what stalls are available by using lights as indicators, activated when the user locks the stall. Patrons also receive alerts outside of the restroom on a touchscreen to let them know their place in line. That way, no one is waiting in a germ-filled or crowded bathroom.

These devices can also track supplies to ensure stalls remain stocked with essential restroom products. It also digitizes cleaning schedules and sanitation documentation.



3. Touchless Fixtures and Digital Faucets:

Touchless fixtures allow users to go to the restroom without touching these contaminated surfaces. Public restroom surfaces contain pathogens that cause illnesses and diseases, such as (but not limited to):

- E. coli
- Legionella
- Shigella
- Norovirus
- Salmonella

Automatic toilets, touchless faucets, and hands-free soap and paper towel dispensers, among others, reduce these risks and promote public health.

Sensor technology isn't the only advance in faucets that make them Fixtures of the Future. You can find faucets that are fully programmable, allowing you to control water temperature, usage, flow rates, and even meter function.

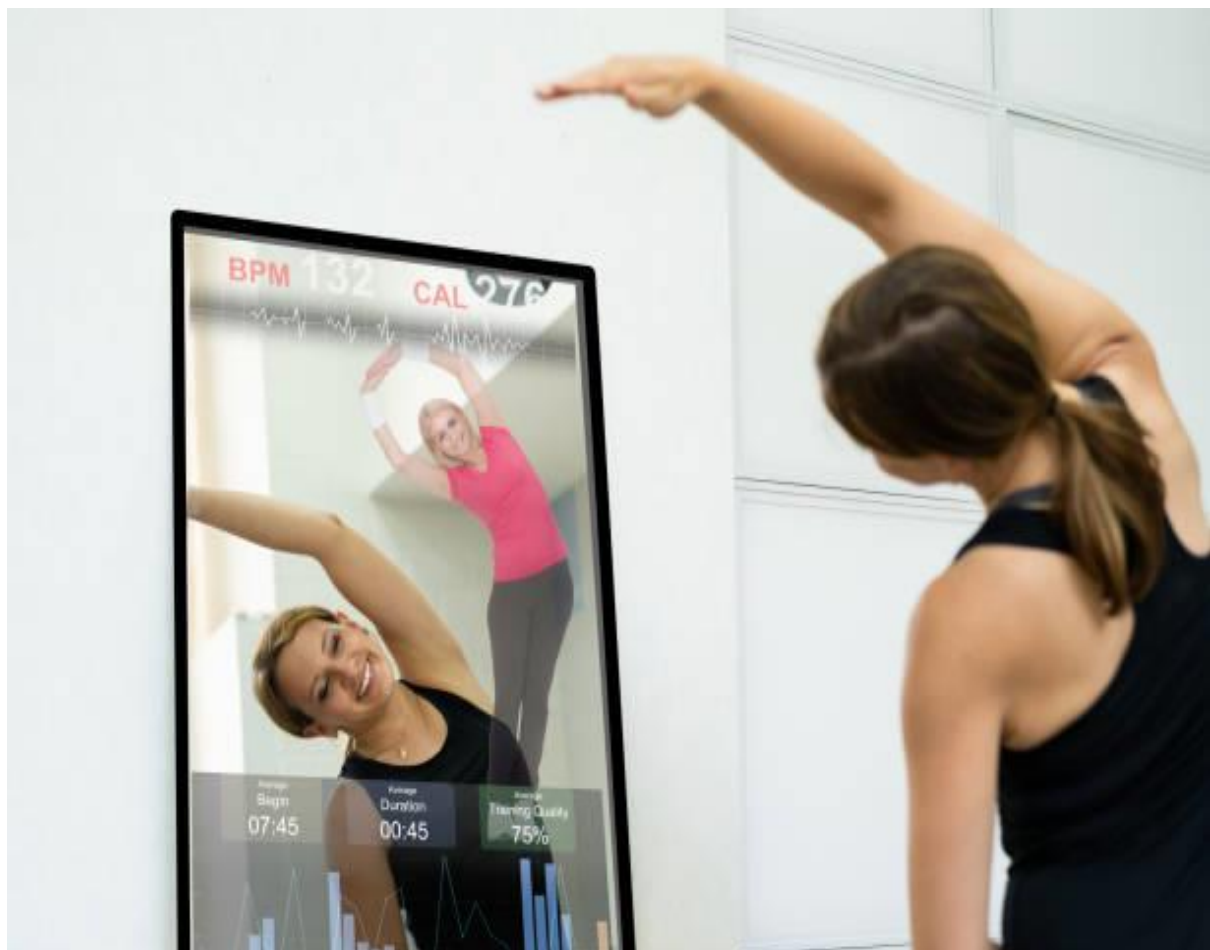


4. Smart Mirrors:

The restroom of the future includes mirrors that can broadcast the weather, daily news, and traffic updates.

While most smart technologies for commercial restrooms inspire residential applications (think hands-free faucets), some began as residential fixtures and made their way to commercial building installations.

Brands began by manufacturing smart mirrors for residential applications. However, it is one of the advances in restroom technologies that originated for home use and has evolved into a commercial restroom tech device



5. Water Reclamation Devices:

Water recyclers can save potable water that would typically go down the drain and enter the public water system. Instead, these recyclers collect the water and reuse it for non-potable purposes, like irrigation or cooling systems.

These systems are better known as Fit-For-Purpose Treatment when used in public water systems. The image below shows how water reuse works.

These devices are good for the environment because they reduce overall water usage. They are also a cost-effective investment. While these systems are not cheap, they generally pay for themselves in just a few short years, thanks to the water (and money) it saves.



6. Smart Water Monitors:

These water monitors help save water (and money), and you can have the controls integrated with a voice assistant, like Siri or Alexa. These devices detect leaks, provide usage data, and determine when the restroom gets the most traffic.

These insights allow you to program temperature and water flow and even provide data on utility bill estimates based on usage. You will receive these notifications through either SMS text messages, emails, or push notifications to your smart device.

Smart water monitors can also identify hidden flaws in your water management system, like poor sealants, pressure fluctuations, line backups, frozen pipes, etc. These systems can even send alerts and recommendations for maintaining your building's plumbing, pipes, and fixtures.



MORAL:

A smart restroom cleaner will automatically flush when the user moves away. Some model have a night light and can play music .other models have a heated seat ,automatic dryer ,automatic restroom tank cleaners and deodorizer. Some even have a water saving feature.



