

A "smart" public restroom refers to a public restroom facility equipped with various advanced technologies and features improve user experience, hygiene, and efficiency.

These smart restrooms incorporate innovative solutions to address common restroom challenges.

Here are some features and technologies often found in smart public restrooms:

### **1. Automatic Flush and Faucets:**

To reduce the need for physical contact, toilets and sinks can be equipped with sensors that automatically flush and dispense water when a user approaches or departs.

### **2. Touchless Hand Dryers:**

Hand dryers with infrared sensors can provide touchless hand drying, promoting hygiene by minimizing contact with surfaces.

### **3. Occupancy Sensors:**

These sensors can detect when the restroom is occupied and display the information outside the restroom, helping users know whether it's in use or available.

### **4. Real-Time Monitoring:**

: Restrooms can be equipped with sensors to monitor and alert maintenance staff when certain conditions are met, such as low toilet paper, soap, or high levels of traffic.

### **5. Anti-Graffiti and Vandalism Measures:**

Smart restrooms may incorporate materials and features that are resistant to graffiti, vandalism, and damage.

### **6. Energy Efficiency:**

Smart restrooms can be designed to conserve energy by using LED lighting, occupancy-based lighting controls, and efficient heating and cooling systems.

### **7. Water Conservation:**

Low-flow toilets and faucets, as well as waterless urinals, can help conserve water in public restrooms.

### **8. Cleaning and Maintenance Schedules:**

Automated systems can track restroom usage and trigger cleaning and maintenance schedules based on actual needs rather than fixed time intervals.

### **9. Wi-Fi and Charging Stations:**

Some smart restrooms offer Wi-Fi access and charging stations for users who want to stay connected while using the facilities.

### **10. Sustainability:**

Smart restrooms may incorporate sustainable features such as solar power, rainwater harvesting, and eco-friendly materials to reduce their environmental footprint.

### **11. Security Cameras:**

Surveillance cameras may be installed for security purposes, ensuring the safety of restroom.