

Smart water fountain

Sub title : IoT based water fountain

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INTRODUCTION

- **Technological Advancement:** In the era of rapid technological advancement, IoT-based fountains stand at the forefront, showcasing how traditional artistry can seamlessly merge with cutting-edge automation.
- **Art Meets Innovation:** These fountains embody the fusion of art and innovation, offering not just visual delight but also a glimpse into the limitless possibilities of smart, interactive installations.
- **Exploring IoT Potential:** This discussion delves into the transformative capabilities of IoT-based fountains, shedding light on how they can elevate aesthetics, efficiency, and sustainability in diverse settings.

COMPONENTS

- ❑ Water Pump
- ❑ Water Level Sensor
- ❑ Microcontroller (e.g., Raspberry Pi, Arduino, ESP8266, ESP32)
- ❑ IoT Connectivity Module (e.g., Wi-Fi module)
- ❑ Power Supply
- ❑ Relay (for controlling the pump)
- ❑ Water Tubing (for water circulation)
- ❑ Solenoid Valve (for controlling water flow)
- ❑ Capacitive Touch Sensor (for user interaction)
- ❑ LED (for status indication)

WIDELY USED AREAS

- ☐ Residential Gardens
- ☐ Commercial Spaces
- ☐ Public Parks
- ☐ Corporate Offices
- ☐ Event Venues
- ☐ Educational Facilities
- ☐ Malls and Shopping Centers
- ☐ Healthcare Facilities
- ☐ Tourist Attractions
- ☐ City Squares and Plazas
- ☐ City Beautification Projects
- ☐ Nature Centers and Museums

ADVANTAGES

- **Convenience:** IoT-enabled smart water fountains offer remote control via smartphones or computers, enhancing user convenience and eliminating the need for physical management.
- **Efficiency:** These fountains optimize water and energy usage through programmable operation, conserving resources and reducing operational costs.
- **Data Insights:** IoT technology provides real-time data on water usage and performance, enabling proactive maintenance and efficient, data-driven decision-making.

CONCLUSION



Smart water fountains empowered by IoT technology offer a blend of convenience, efficiency, and aesthetic appeal. They find applications in diverse settings, from residential gardens to commercial spaces and public areas. These fountains not only enhance user experiences but also promote water conservation and sustainable resource management. As technology continues to evolve, smart water fountains stand as an innovative and versatile addition to modern landscapes and environments.