Smart water fountain

"Our smart water fountain incorporates advanced sensors to conserve water by automatically turning off when no one is present."

"With personalized design options, our innovative fountain creates a unique experience for users while promoting water conservation."

"Using presence detection technology, the fountain intelligently turns on when someone approaches, providing water only when needed."

"By integrating touch-sensitive controls, users can easily activate and deactivate the fountain, ensuring water is not wasted."

"Our smart water fountain combines technology and sustainability, making it an eco-friendly solution for public spaces, offices, and homes."

Code:

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PIR sensor tester

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int ledPin = 12; // choose the pin for the LED

int inputPin = 23; // choose the input pin (for PIR sensor)

int pirState = LOW; // we start, assuming no motion detected

int val = 0; // variable for reading the pin status

void setup() {

pinMode(ledPin, OUTPUT); // declare LED as output

pinMode(inputPin, INPUT); // declare sensor as input

**Serial**.begin(9600);

}

void loop() {

val = digitalRead(inputPin); // read input value

if (val == HIGH) { // check if the input is HIGH

digitalWrite(ledPin, HIGH); // turn LED ON

if (pirState == LOW) {

// we have just turned on

**Serial**.println("Motion detected!");

// We only want to print on the output change, not state

pirState = HIGH;

}

} else {

digitalWrite(ledPin, LOW); // turn LED OFF

if (pirState == HIGH) {

// we have just turned of

**Serial**.println("Motion ended!");

// We only want to print on the output change, not state

pirState = LOW;

}

}

}

Stimulation:



Used component:

>ESP32

>pir sensor

>bulb represent the water fountain

Pin Assignments:

The pin assignments are defined using const int variables to specify the pin numbers for the presence sensor, touch sensor, and fountain relay. Adjust these values to match your specific hardware

connections.

Variables:

Two boolean variables are used: is Person Present and is Fountain On. These flags track the presence of a person and the state of the fountain, respectively.

Setup:

In the setup() function, the pin modes are set for the presence sensor (input), touch sensor (input with pull-up resistor), and fountain relay (output).

LINK:

https://wokwi.com/projects/378939235795927041