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."

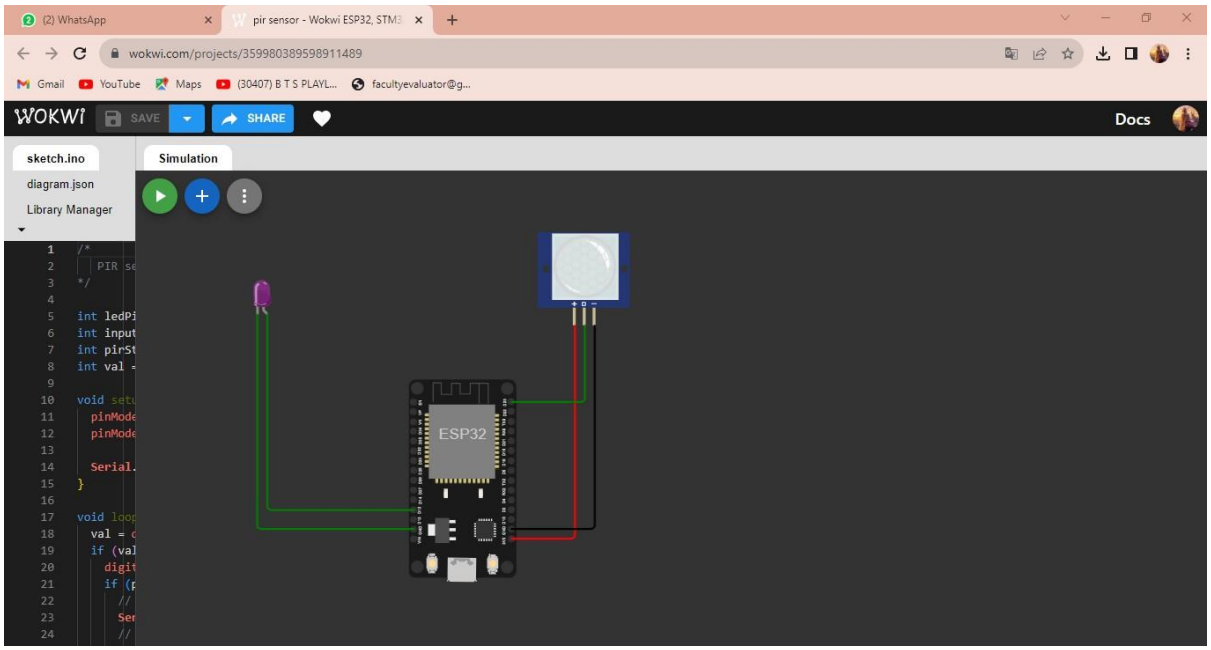
"Our smart water fountain combines technology and sustainability, making it an eco-friendly solution for public spaces, offices, and homes."

Code:

```
/*
   PIR sensor tester
*/

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 presencesensor, 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/359980389598911489