The Solarpunk Oracle

A Multimodal Installation for Reflective Futures

Project Title

The Solarpunk Oracle: A Multimodal Installation for Reflective Futures

Overview

The Solarpunk Oracle is an interactive installation that invites participants to reflect on a hopeful future through physical interaction and poetic dialogue. It blends nature-inspired design with embedded sensor technology, drawing from Solarpunk aesthetics and ethics to create a moment of collective pause and reflection.

Visitors awaken the oracle by stepping on a pressure-sensitive floor (piezoelectric sensor), choose a thematic question by touching petals (capacitive sensors), and receive poetic insight by waving over the oracle (IR sensor), triggering a response generated by ChatGPT. Each gesture corresponds to a natural force-step as energy, touch as intention, wave as transformation-creating a multisensory, symbolic experience.

Aims & Goals

- To explore how physical interaction and AI-generated responses can be combined in a Solarpunk context to support ethical reflection, emotional engagement, and design storytelling.

- To challenge dystopian narratives about AI by presenting it as a companion for human curiosity, not a replacement.

- To create an installation that reflects the values of sustainability, interdependence, and hope through aesthetic interaction, inspired by the framework described in The Future of AI.

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Interaction Design

Interaction | Sensor | Symbolic Meaning | Output

Step | Piezo | Awakening/Energy | Brief LED pulse, soft chime sound

Touch | Capacitive pad | Intention/Theme | Theme selected (e.g., Rest, Change)

Wave | IR proximity sensor | Activation/Wind | GPT-generated poetic insight displayed or spoken

Materials & Components

Input Sensors:

- Piezoelectric pressure sensor (floor mat)

- Capacitive touch pads (leaf/petal-shaped interface)

- IR proximity sensor (for wave detection)

Output:

- Addressable LEDs (WS2812B)

- Speaker (for ambient sound & oracle's voice)

- Small screen or projector (for text display)

Controller & Logic:

- Arduino Uno or ESP32 for sensor data

- Python script running on connected laptop (OpenAI API integration)

- Optional: text-to-speech library

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Technical Approach

1. Physical sensors collect multimodal input from the user.

2. A microcontroller interprets the input and sends it via serial or Wi-Fi to a laptop.

3. A Python script sends a crafted prompt to the OpenAI API based on the selected theme.

4. The Oracle's response is returned and displayed as glowing text or played as audio.

5. Ambient lighting and sound react to the chosen theme, creating a multi-sensory atmosphere.

Thematic Framing

The Oracle reflects a pluralistic, humane approach to AI. It reframes GPT not as a tool of domination or automation, but as a poetic companion-a voice that sparks imagination and ethical thought.

User Experience

A participant walks into the Oracle's space, stepping on a mossy or stone-textured mat. A flicker of light travels up a glowing vine. They press a glowing petal, choosing a theme-perhaps "Rewilding." With a gentle wave, the Oracle stirs. In a soft voice, it whispers:

"The soil remembers you. Grow wild, and you will not be forgotten."

Timeline

Week | Task

1 | Finalize concept, material list, order components

2 | Build and test sensor circuit (step, touch, wave)

3 | Set up GPT communication pipeline

4 | Design lighting and sound responses per theme

5 | Build physical installation (petals, base, etc.)

6 | User testing, refinement, documentation

Outcome & Contribution

This project offers an example of poetic, intentional AI integration in physical interaction design. It demonstrates how AI and physical computing can co-create emotionally resonant experiences when guided by values like care, sustainability, and beauty.