**Frontend**

* **Dashboard**
* **Water Dispense Control**
* **Live Status Display**
* **Manual Update Capability**

HTTP

**Backend**

* **Web Server/API Layer**
* **Water Pump Logic**
* **State Management**

Serial over USB/UART

**Physical Sensors**

* **Soil Moisture Sensor**
* **Temperature Sensor (DHT11)**
* **Light Sensor (LDR)**

**Arduino**

* **Sensor Logic**
* **Water Pump Control (Relay)**
* **Display Control**