SMART WATER FOUNTAIN

Project Definition and Design Thinking

Project Definition :

1. Introduction and Explain the problem.
2. The importance of the project is " enhance public water fountains by implementing IoT sensors to control water flow and detect malfunctions" .
3. This project defining objectives : design IoT sensor system, developing the water fountain status platform, integrate use of IoT technology and Python.

Specific Objectives :

1. Real-time Monitoring.
2. Water Quality Assessment.
3. Remote Control.
4. Create a sensor device to monitor water fountain status and quality.
5. Designing the IoT sensor system.
6. Developing the water fountain status platform.
7. Integrate using IoT technology and Python.

Components :

1. Sensors .
2. Power Supply .
3. Communication .
4. User Interface (UI) .
5. Security .

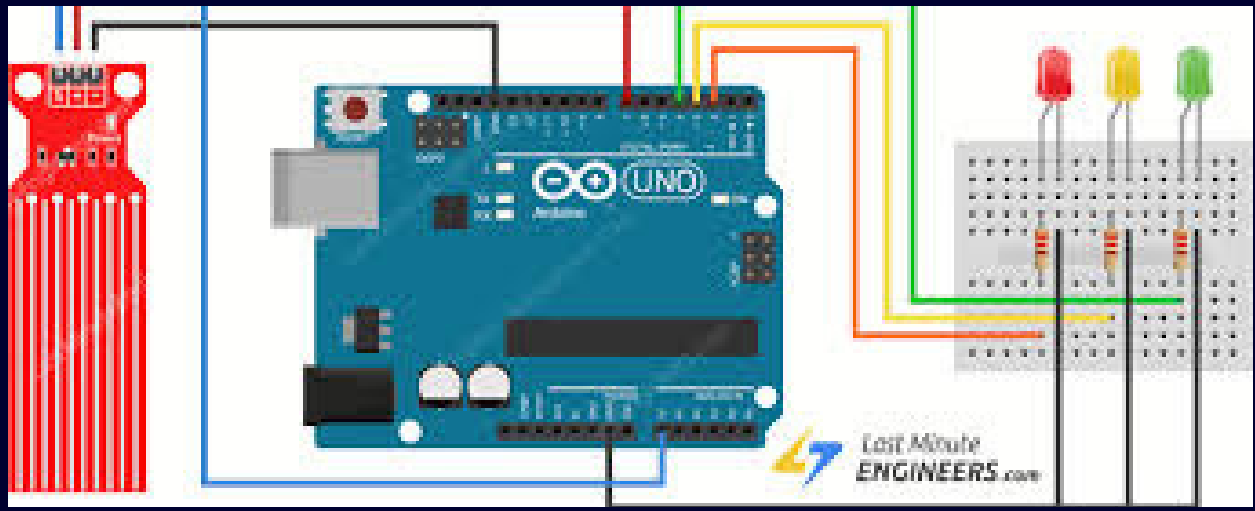
Introduction a IoT Sensor Device :

Water Fountain Sensor Components :

1. Water Level Sensor (Ultrasonic) .
2. Water Temperature Sensor (DS18B20).
3. pH Sensor.
4. Turbidity Sensor.
5. Microcontroller (Arduino or Raspberry Pi)

REAL-TIME TRANSIT INFORMATION

"Real-time water level, temperature, pH, and turbidity data for efficient water fountain monitoring via IoT sensor device."



Integration Approach :

Sensor Data Collection

Use Python to read data from water level, temperature, pH, and turbidity sensors connected to the IoT device.

IoT Connectivity

Utilize IoT protocols like MQTT or HTTP to transmit sensor data securely.

User Interface

Design a web-based or mobile app using Python frameworks like Flask or Django for user interaction and visualization.

Smart Water Fountain Documentation :

System Overview :

Smart Water Fountain system, emphasizing its IoT device and Python integration.

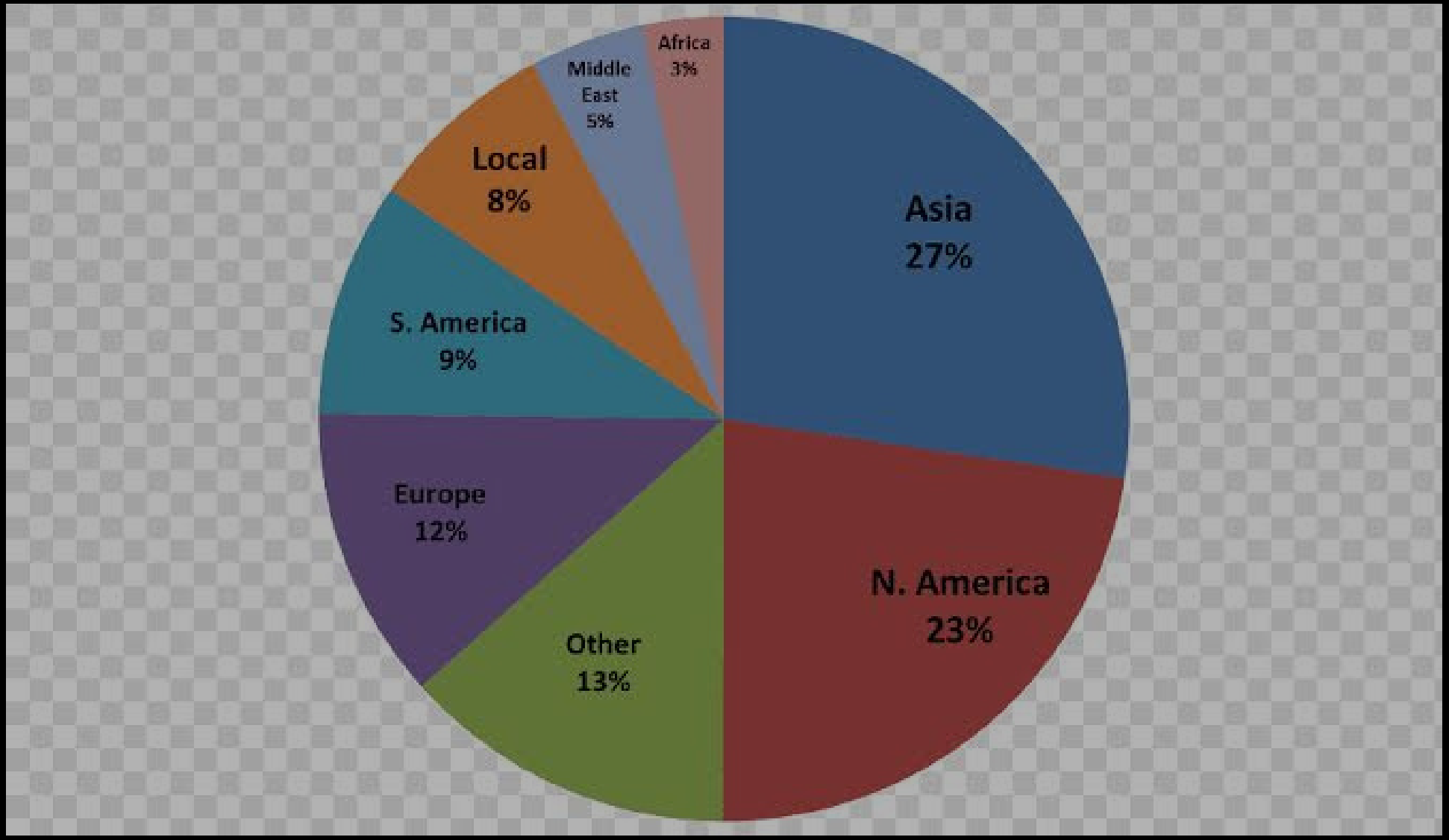
Installation and Setup :

Step-by-step instructions for setting up the Smart Water Fountain, including hardware assembly and sensor calibration.

Maintenance :

Guidelines for routine maintenance tasks such as sensor calibration, battery management (if applicable), and device cleaning.

Real Time Analysis for smart Water Fountain




THANK YOU!