SMART WATER FOUNTAIN

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PROBLEM STATEMENT :

- When the water flow does not have any restrict , there is lose of water in household as well as environment .
- The lack of fountains in a community can have a number of negative consequences for people, the environment, and the local economy.

PROJECT STATEMENT

HARDWARE

- First we start by using the Wio Node and a relay ,also going to a screen for feedback and text.Using the relay we can control the power supply.

- **SOFTWARE**
- The hardware is all connected ,its time to setup the software . We will use the Wio app by seeed.

DESIGN

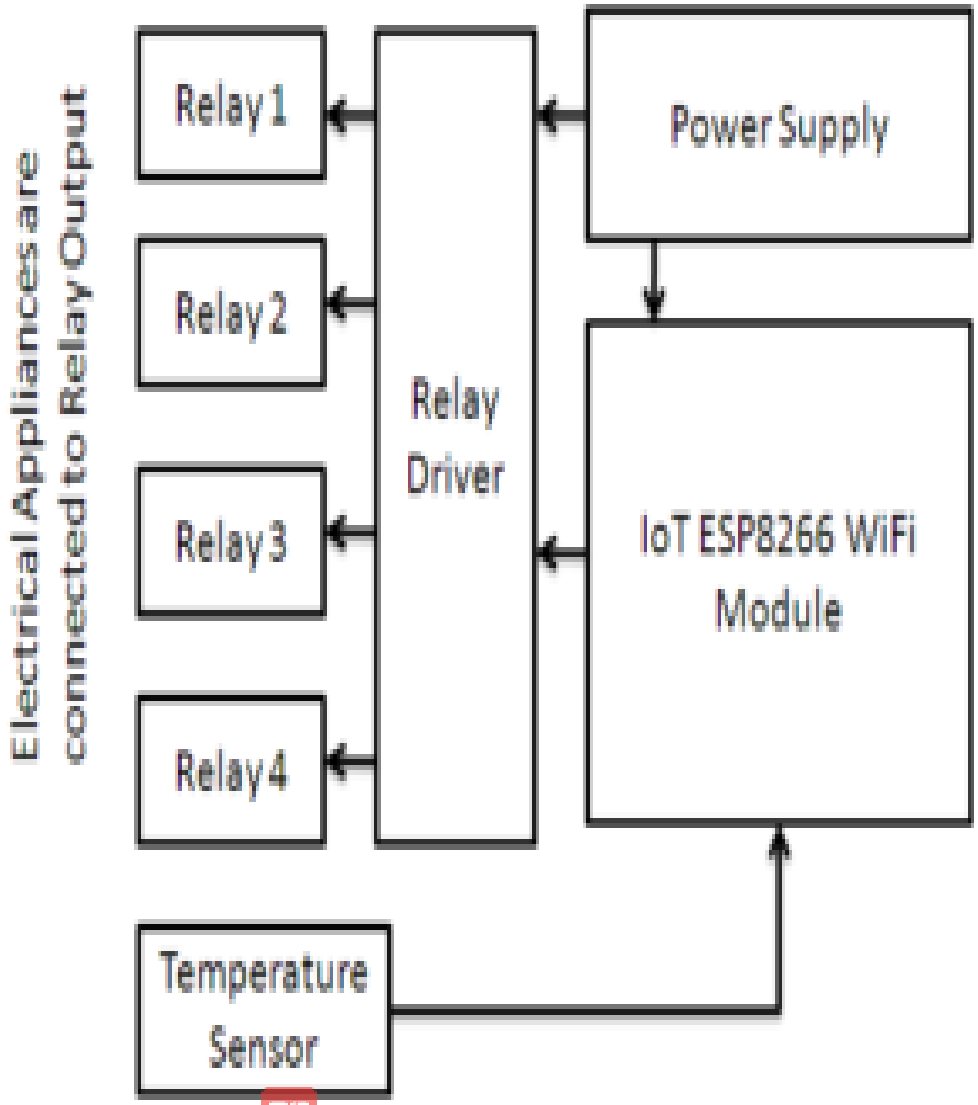
- **STEP 1:** Install Android/iOS App
- **STEP 2:** Create your Account
- **STEP 3:** Connect Wio Node to Internet
- **STEP 4:** Virtually interconnect modules with Wio Node and update firmware

Here is where we add the 2 components

Relay

OLED

BLOCK DIAGRAM



CODE FOR THE PROPOSED PROJET:

```
def activate_fountains(fountains):
n = len(fountains)
min_fountains = float('inf’)
for i in range(1, 2**n):
activated = []
for j in range(n):
if (i >> j) & 1:
activated.append(j)
if is_covered(activated, fountains):
min_fountains = min(min_fountains,len(activated))
return min_fountains
```

```
def is_covered(activated, fountains):
 n = len(fountains)
 coverage = [0] * n
 for i in activated:
left = max(0, i - fountains[i])
right = min(n - 1, i + fountains[i])
 for j in range(left, right + 1):
coverage[j] = 1
return all(coverage)
a1 = [1, 2, 1]
a2 = [2, 1, 1, 2, 1]
print(activate_fountains(a1))
print(activate_fountains(a2))
```

THANK YOU