**Abstract:**
The pollution in Newport Harbor is located at the mouth of the Shaw Brook Creek where impurities and debris collects throughout the creek and travels down into the harbor. To solve the problem we designed a triple-sided screen. Moreover, two Etape sensors were placed inside and outside the screen to feed a Microcontroller (PIC16F877) with water levels. An algorithm was developed and implemented in the PIC16F877 to realize screen clogging and update maintenance via text messages using the SIM 300 GSM modem and control a bypass if needed.

**Objectives:**
- Intercept the pollutants before they reach the harbor
- Remove pollutants after interception
- Monitor the system and Control Bypass

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**System Diagram**

**Triple-Sided Screen**

**Etape Sensor**

**Microcontroller Circuit**

- **A:** Water Level in Column A
- **B:** Water Level in Column B
- **K:** Max Water Level in Column A
- **Operate Pump:** Bypass