Activity :1

STIMULATION OF ELEEEECTRIC SWITCH

DESCRIPTION :Design a programme to stimulate of an eclectic switch where the programme takes input values or either 0 representing the switch on or off on respect using a suitable statement the programme should interfere the input values and display the corresponding conditions on or off additional any programme should handle input vales prove appropriate aid or message.

## RESEARCH : Opening gates of dam

Refrence ;From self thoughts.

## ANALYSIS : iam using C programme to this project Dam gates open automatically by sensors that monitor water levels and send signals to a microcontroller, which then activates a DC servo motor to operate the gate. Different types of water level sensors, such as ultrasonic or simpler level sensors, can trigger the gate to open partially or fully depending on the water inflow, and then a sensor or the microcontroller controls the gate to close as the water level drops

IDEATE :Here's a breakdown of how it works:

* W**ater level sensors :** The process begins with sensors placed at different levels within the dam's reservoir to detect the water level. If dam is filled 80% or more then it .
* **Signal Transmission:** These sensors detect a rise in water level and send an electronic signal to a central microcontroller.
* **Microcontroller Processing:** The microcontroller receives the signal and processes the data to determine if the water level has reached a pre-set critical point.
* **Motor Activation:** If the water level is high enough, the microcontroller instructs the DC servo motor (or a similar mechanism) to operate the dam gate.
* **Gate Operation:** The servo motor opens the gate to a specific position, allowing excess water to flow out and controlling the rate of release.
* **Controlled Closing:** As the water level recedes below the preset level, the sensor sends a new signal, prompting the microcontroller to close the gate.
* **Water Level Sensors:** Detect water levels (e.g., ultrasonic sensors).
* **DC Servo Motor:** The actuator that physically opens and closes the dam gates.
* **Power Supply:** Provides power to the sensors, microcontroller, and motor.
* Once the dam gate is open the outflow of the water is calculated by employing flow and filled capacity of dam if it is more then 80% .
* excessive water pressure can build up, potentially leading to structural damage or complete dam failure, causing widespread downstream flooding and loss of life. So its better to use automatic sensors and switches .

# BUILD :

* #include<stdio.h>
* void main(){
* int a;
* printf("Enter value of water level (in %)\n");
* scanf("%d", &a);
* if(a>80){
* printf("Water level exceeded, dam will overflow\n");
* }
* else{
* printf("Water level is sufficient, gates are closed!\n");
* }
* }

## TESTING : Enter value of water level (in %)

## 90

## Water level exceeded, dam will overflow

## 

## 

## === Code Exited With Errors

Enter value of water level (in %)

60

Water level is sufficient, gates are closed!

=== Code Exited With Errors ===

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