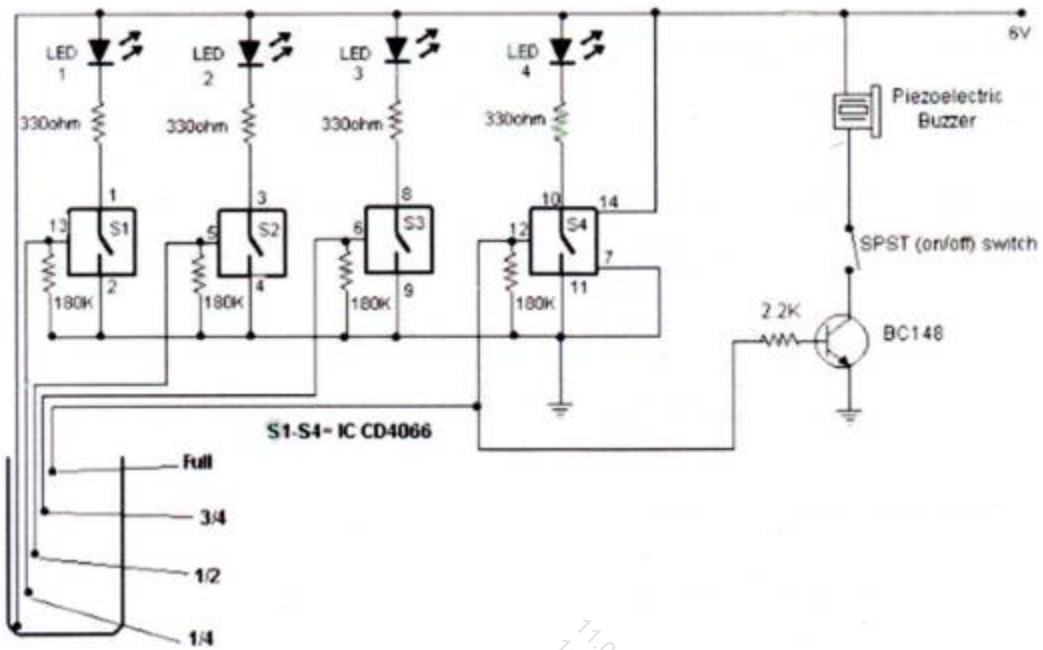
Project Name: Water Level Measure

Introduction

Today we are going to talk about a very useful project that we had taken up. It is called the Water Level Indicator. Nowadays everybody has overhead tank at their homes. But everyone who has a water tank above knows the kind of problems that they face. Firstly there is no system to track the water in the tank. Then there comes a secondary problem that is when their water pump is started they have no idea when it gets filled up and sometimes there are situation where the pump keeps on *pumping water to the tank* and the water starts *spilling out from the tank*. There is ***wastage of energy*** as well as ***wastage of water***.

Circuit Diagram :



Details :

A very simple low cost water level indicator circuit is presented in this schematic circuit. This water level indicator is based on a simple CMOS IC CD4066 and indicates the amount of water present in the overhead tank and also gives an alarm when the tank is full.
As you can see in the circuit diagram the circuit uses the widely available CD4066, bilateral switch CMOS IC to indicate the water level through LEDs.
When the water is empty the wires in the tank are open circuited and the 180K resistors pulls the switch low hence opening the switch and LEDs are OFF. As the water starts filling up, first the wire in the tank connected to S1 and the + supply are shorted by water. This closes the switch S1 and turns the LED1 ON. As the water continues to fill the tank, the LEDs2, 3 and 4 lights up gradually.

The no. of levels of indication can be increased to 8 if 2 CD4066 ICs are used in a similar fashion.
When the water is full, the base of the transistor BC148 is pulled high by the water and this saturates the transistor, turning the buzzer ON. The SPST switch has to be opened to turn the buzzer OFF.
As you can see this electronic liquid sensor circuit requires very few external components and need to be powered from a 6 volts DC power supply.

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