**Automated Tank water level indicator and control**

**Components used:**

* Arduino Nano
* 16x2 LCD display
* MOSFET
* 12V Brushless DC Pump
* ¼” Tube and Two containers
* 12V and 5V adapters
* Jumper wires, single strand wires, Header pins
* 10K Ohm resistors (5), 10K Ohm Potentiometer
* Breadboard and Prototype PCB breadboard

**Working:**

* 5V is supplied at the bottom of the tank. Probes are attached at 5 levels of the tank i.e, 20, 40, 60, 80, 100 percent capacity levels.
* These probes are connected to analog pins of Arduino Nano. When the water level is at a certain probe level, the analog pin senses the voltage and displays the corresponding water level to the user on the LCD display.
* When the water level goes below 20%, the pump is switched on by sending a signal to the MOSFET via the digital pin of Arduino Nano.
* When the water level reaches 100%, the pump is switched Off.
* Hence the user always has the information about water level in the tank and the manual effort of switching ON/OFF of the pump is eliminated.

**Future work:**

* Jumper wires and breadboard can be eliminated by designing and fabricating Printed Circuit Board(PCB)
* The components can be enclosed in a Fiber casing to make it easy to use and install for the end user.

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