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Review on Smart Water Tank Pump Switcher

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ABSTRACT: In this paper we present the idea of a smart water tank pump switcher operated with Arduino Nano. In this way manual involvement is not required for continuous water supply. Water tank switcher can also be used for any other fluids in chemical industries. The aim of this project is to Preservation each drop of water each drop of water and provide A1 water distribution and more over reduce manpower involved in it.

KEYWORDS: Preservation, distribution, reduce manpower etc

I. INTRODUCTION

The entire earth is surrounded with plenty of water bodies. The earth's surface is covered with water by almost 70%. But maximum of this water accessible is in the form of oceans and seas. The water cannot be bringing to bear by humans. Fresh water resource on the earth's surface is restricted. It is nearly 2% only. This conserving water becomes necessary. Preservation each drop of water becomes essential for the survival of all the species.

We find that due to absence of proper acknowledgement and control of various water systems, most of the fresh water being exhaust. If we go on wasting the water, it might be

Difficult for the future generations for fulfil their basic demands. We are trying to create an improved system for water tank management.

By apply this concept in several residential colonies and in other places where there is a utilization of overhead tanks. Implementation of this concept will also reduce physical *work* or human involvement which will be easy for everyone. It will be both time and eco-friendly.

II. LITERATURE REVIEW

YEAR	TITLE	TECHNIQUE	REMARKS
2010	Microcontroller Based Automated Water Level Sensing and Controlling	Microcontroller chip technology	Furthermore, it can indicate the amount of water in the tank that can support Global Water types including cellular data loggers, satellite data transmission Systems for remote water monitoring system.
2013	Microcontroller based automatic water level control system	Microcontrollers and GSM	An improvement on existing water level controllers by its use of calibrated circuit to indicate the water level and use of DC instead of AC power thereby Eliminating risk of electrocution.
2014	Smart Water Tank Management System for Residential Colonies Using Atmega128A Microcontroller	At mega 128A microcontroller	This system can be implemented using Level sensors which would render an accurate water level and it can be operated using Smart Phones
2015	Smart Water Monitoring System Using Wireless Sensor Network at Home/Office	Wireless Sensor Technology and microcontroller (PID)	to monitoring the water such as water level monitoring, water pollution monitoring and water pipeline leakage monitoring



III. SYSTEM DEVELOPMENT

Our project system will have a water tank and a basement water tank. The water tank will have 2 sensors on for low level and the other for high level. When the low sensor triggers its micro controller input the water pump is activated. When high level is reached the water, pump is deactivated and the. Water pump is activated again only when the water level reaches low. A dry run sensor is fitted in the basement water tank to indicate that there is no water in the basement water tank. With the dry run sensor, the electric motor is out of danger as it immediately deactivates the water pump.

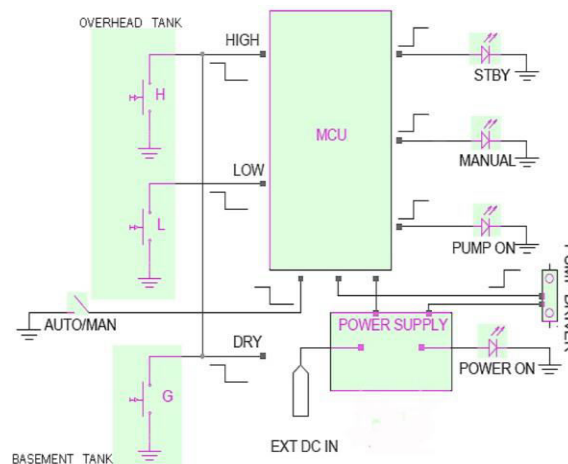


Fig.1 Diagram

IV.RESULT

Thus, if there is no water available in the basement water tank the sensor will turn on and the pump will be off. If water is available in the basement water tank, then it will pump into the overhead tank. If there is no water in the overhead tank indicated by the low-level sensor and when the water in the overhead tank reaches the high level the sensor will turn off

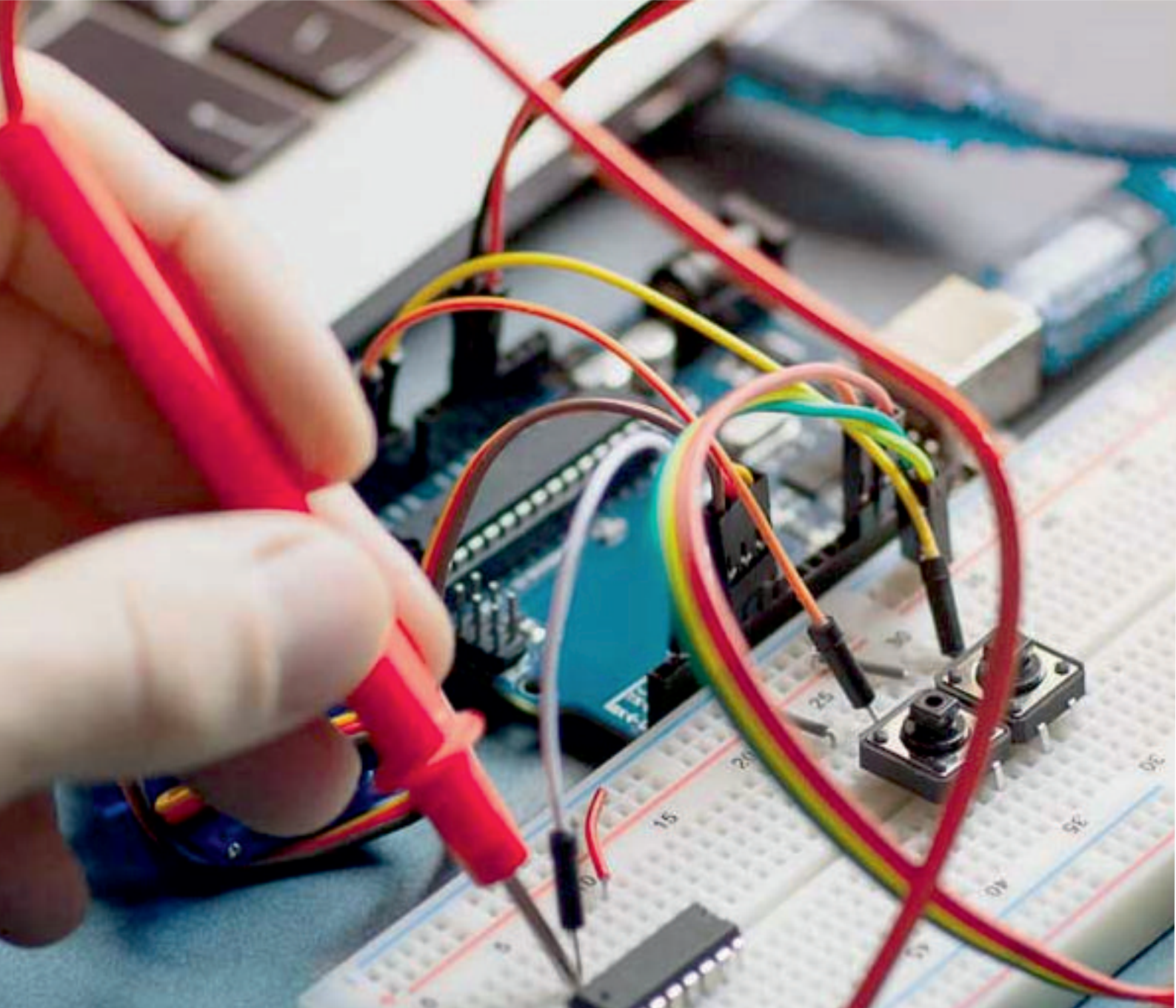
V.CONCLUSION

Water is a very important resource, and it is very important that we save it for our future generation can also enjoy its presence. Water conservation becomes an important aspect. Our intension of this project is to establish a system by which we can implement and reduce wastage of water. On execution of this system, it will certainly help to reduce water wastage.

This system can be further improvised by using advanced microcontroller. It can also be improvised by connecting the system to your mobile phone and operating the sensors from a remote place by using the mobile phone.

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