AUTOMATIC WATER TAP SYSTEM

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ABSTRACT

Automatic Water Tap System is a system that will control the flow out of water.The problem to find a new water source, need to pay a high water bill and the difficulty that been facing by disabled people to used water tap becomes the reason why this system is built. The system can reduce the water wasting in our daily life and save water bill so it can reduce life cost. It's also can help disabled people to used water tap in easy way. This system can be used at residence, school, mall and mosque.In this system, Arduino Uno is used as microcontroller and LDR sensor also been used to detected a user. When the sensor detects the user the system will let the water flow out. The microcontroller receives the signal from sensor and will send the signal to L239B (motor driver) to control the motor rotation. It will control the motor to rotate clock wise or anti-clock wise for open and close the water tap. The LED also been used in this system. When the greenled light up, it means that the system is being used and the water is flow out. When the red led light up, it means the system is not being used so the water stop from flow out from tap. The water flows out accurately because it only flows when the sensor senses the user hand and it automatically stop the water flow when there is nobodyuses the water tap. If the surrounding is dark, the yellow led will light up to illuminate the water tap area.

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CHAPTER 1

INTRODUCTION

1.1. Background study

Water is an important resource for living being. From day to day, the world population increase and it will affect the water source. This project is to build and test the automatic water tap system. It is designed to improve people lift by having more convenient water tap system. It is different with normal water tap and it can save uses of water and water bill. The system will control the flow out of water. If there are someone used the water tap, the system will control the water tap and let water flow out. When there is nobody used the water tap, the system will close the water tap so there is no water flow out.

The advantage of this system is it work very accurate because the system will let the water flow out only when the sensor sense the present of human and it automatically stop the water flow when the sensor do not detect any motion of human. It will minimise the water waste because water only flow out when someone used the water tap. Furthermore, by using this system the user does not need to turn on the