AUTOMATIC RAIN WATER SAVER

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Abstract

Automatic Rain Water Saver is an inexpensive technology, can be implemented for several application such as for saving water in the container during rain and all many more home appliance. Automatic rain water saver technology nowadays which is a matured technology that has been widely deployed by various organization as part of their automation system for example rain sensor and water sensor that programing to the arduino include with servo motor. The main objective of this project is to design and implement a automatic rain water saver that appliance can be controlled automatically by rain sensor and water sensor. In this project, we use servo motor to open the opener of the container. This project consists of two main parts which include: the hardware and the software. The hardware consists of the ATmega328 microcontroller (arduino UNO), water sensor, rain sensor, LCD displays 16X2, servo motor and also include with 3.3V-5V converter. The serial communication will communicate to the host computer where it was interfaced with the arduino main board. The advantage of using this technology is it can save rain water. We can use the water when our house cannot get the water supply. So this technology is inexpensive and very important to our daily life.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Water has been important for people for thousands of years. Without water there would be no life on earth. We use water in our houses for cooking, bathing and washing the dishes. Water is used to grow food. In many dry areas farmers must bring water to the fields through canals and expensive irrigation systems. Sometimes water supply is undeliverable because pipe of the water supply have a problem, make the service can be disrupted or compromised.

To make sure these problems will be overcome, this circuit was designed. This automatic rain water saver system can be applied to our house by using rain as a second source , so that we can use the water even the water supply is undeliverable.

Why we choose rain as second source of water in human daily usage. The geography of Malaysia deals with the tropical climate of Malaysia, a country located in Southeast Asia. There are two distinct parts to this country being Peninsular Malaysia to the west and East Malaysia to the east.

Peninsular Malaysia is located south of Thailand, north of Singapore and east of the Indonesian island of Sumatra. East Malaysia comprises most of the northern part of Borneo and shares borders with Brunei and Indonesia.

Located near the equator, Malaysia's climate is categorized as equatorial, being hot and humid throughout the year. The average rainfall is 250 centimetres (98 in) a year[1] and the average temperature is 27 °C (80.6 °F).[2] The climates of