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RAIN DETECTOR ALARM

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Abstract*:*

Farmers are pillars of our nation. They have experienced losses due to intense rainfall which damage crops, root growth to overcome this, we have created this project. When the rain detector senses rain, it sounds an alarm. As a result, various aspect has been achieved using Rain detectors to stop irrigation, home automation, electronics.

Keywords : Rain Sensor,5V relay, Alarm

1. INTRODUCTION

Water Management and proper water usage has to be maintained in the recent years. So maintain proper usage of water we need to save the water in every aspect. In agriculture field rain is a basic need but intense rain can affect the crops root growth. Irrigation is enough cover the water need of crop but if intense rainfall occurs it may damage the crops, growth of the crops. when Rain detector detects rain it trigger the alarm. Rain detector alarm efficient way to stop irrigation whenever rain occurs. It is also used in home automation by users to reclaim their belongings, cover windows. In some situations, we can Collect some rain water. When rain falls, it will cause a setback to all the reasons for sun-drying enumerated above, especially when the materials being sun dried are not retrieved quickly. Thus, designing and constructing a device which gives one a heads-up the instant it starts to rain hopefully giving you time to retrieve the materials being sun dried, close your windows, and bring in possession is not only apropos but also absolutely imperative. Also, since it can rain at any time without any warning, clothes in a clothes line outside the house that are almost dry may get wet if we do not realize it is raining on time. Thus, this project will also help house wives and other users to be quickly alerted to avoid rain from wetting shirts/ dresses being sun dried at the clothes line outside the house. Collect some rain water.

2. LITERATURE REVIEW

For a number year up till date, some works on Rain water detection have been done by electronic designers/hobbyist. These works range from the application of rain detector circuit/device in irrigation, collecting rain water for domestic and industrial use a process known as rain water harvesting to using rain detector/Sensor in automobiles to control the power windows and roof whenever it senses moisture a design known as automatic rain sensing windows.

P. Campbell, et al, [1] in their work, Automatic Rain sensing windows worked to create a device that will allow car windows to roll up automatically when it rains thereby preventing the interior from getting destroyed. The design was essentially used with automobiles. In [2] Campbell scientific built a rain detector which functions to detect whether it is raining or snowing, and the output used to control another circuit. In [3] Mohammed Hadi Ismail incorporated a rain detector in his work designed to harvest rain water

automatically and store same in reservoir for domestic use. Other electronic hobbyists have designed one form of rain detector/sensor in the past but the main objective of this work which is detecting rain and alerting the user was never considered.

Work :

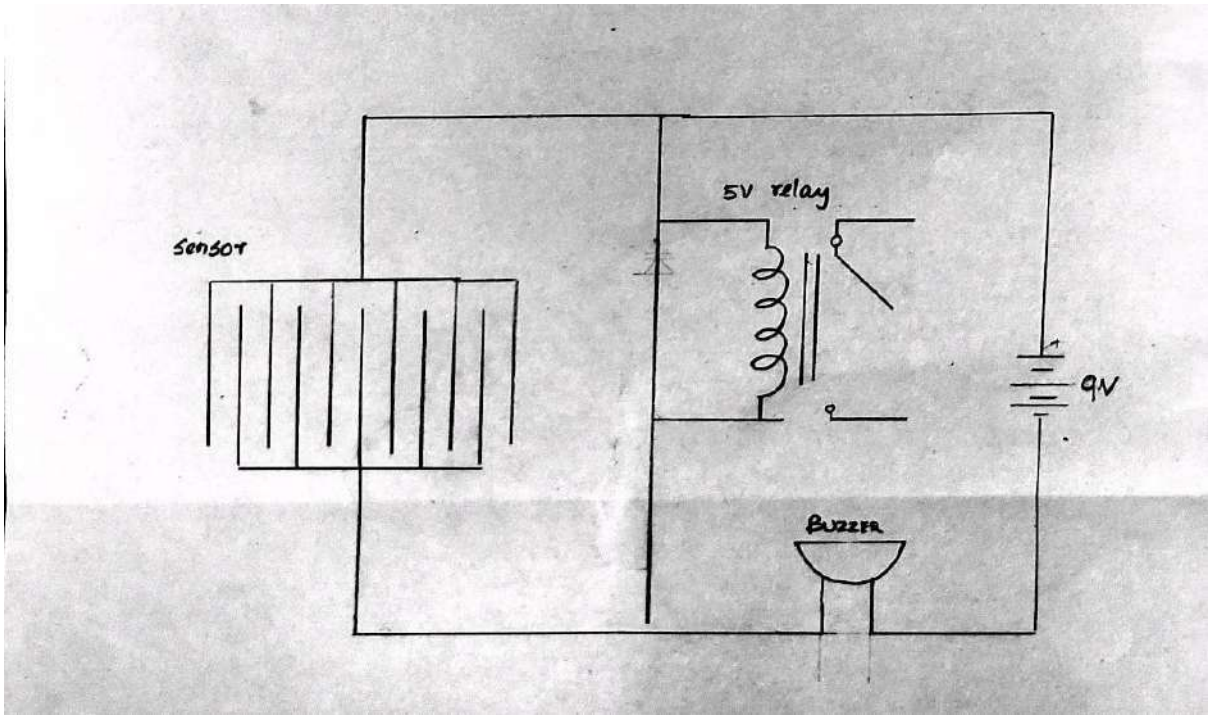
At First, we have connected Resistive rain sensor kit with 5V Relay Module Using Jumper Wires by Soldering. Then We connected Buzzer with Rain sensor and 5V Relay Module Since buzzer used to alert. At last we connected 9V battery using wires.

Design :

The design is quite simple. It consists of 5V relay module, Resistive rain sensor kit, Buzzer, 9V battery.

Circuit Diagram:

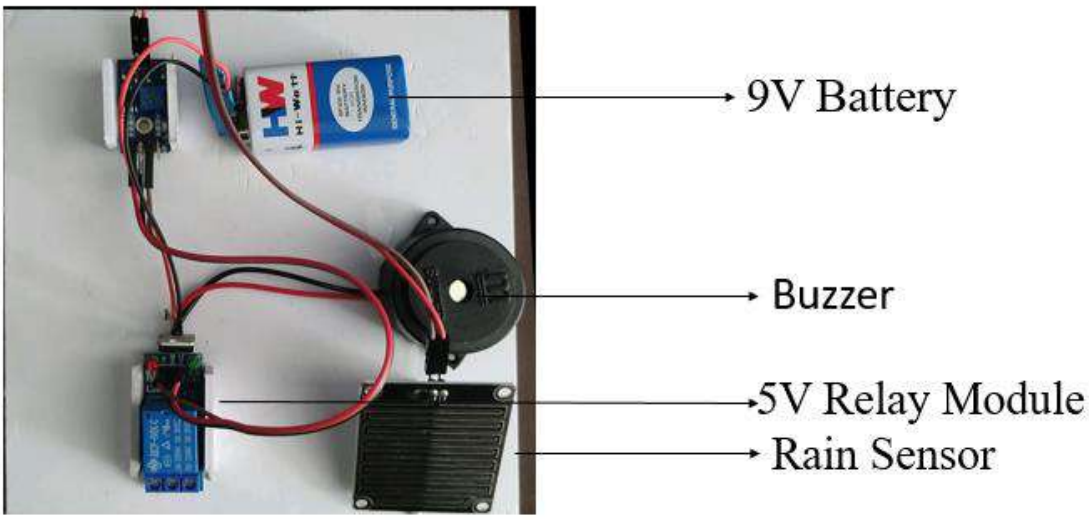
It consists of Rain Sensor, 9V Buzzer,5V relay Module, 9V battery.



Block Diagram :

Block Diagram Explains the working of Rain detector alarm

Photography: Photography of Rain Detector Alarm



CONCLUSION:

Concluding that rain sensor detect and trigger the alarm so that an action taken at a moment. It is activated even at thinnest water drop. Since it is used to stops irrigation, home automation

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