

IoT Based Solar Powered Agribot for Irrigation and Farm Monitoring

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Abstract: In India, nearly 70% of people rely on agriculture. Therefore, India's agricultural system should be advanced to reduce farmers' efforts. Various operations are carried out in the agricultural sector. A very basic and anally healthy operation is to sew, but why there are like lees with current seeding. The equipment used for seeding is difficult to use. Thoth is sotta developing equipment to reduce the effort of farmers. The system introduces a control mechanism designed to drop the seed to a specific location at a specified distance between the two seeds and the line when sowing. There are many reasons for this development, such as the average decline in business, the infeasible agriculture, the increase in agricultural wages, rampant sales of agricultural land and the shift in employment from agriculture to agriculture. Non-agricultural sector. The teeth of the wry of the existing system will be remotely successful in this automatic machine. IOT ling solar powered agribot that automates the stiletos and enables remote farm monitoring.

Keywords: IoT, Agribot.

1. Introduction

In the past, technology did not develop as much. Therefore, they deplore and plant by hand. But know that the technology is developed. So now he's not doing it in the sun. Using robotics, people can sit in a cool place and can make seeds by monitoring the robot's movements. Three farmland sets to find new ways of operating, improve efficiency. In agriculture, lies are weather instestate sates in operations such as seeds, plows, and planetary cutting dings, weeds. In addition, the equipment that performs the operation is very heavy. Labour problems due to population migration in cities. Today, robotics plays a role in the medical field, industry and resorts. Among the other monkeys, the robot operates on the farm. We use existing and robotic technologies in agricultural systems to reduce armour performance while reducing time, effort and cost.

One motor each is used to control harvesting, sowing and watering the crops. The heart of our robot is Intel's most powerful home of microcontroller 8051, we are using AT89C2051 microcontrollers IC2 is first micro-where-where acts as master controller decodes all the commands received from the land is responsible for executing all the commands received from the remote and also will-generated pulses for the

speed control. LD293 motor ICs who drives two motors two motors are motor is vehicle motor motors and it also runs the motors for all other attachments of agriculture in the car. The microcontroller is brain of this system, which dedicates the order of the logos received to all the networks, and sensitive factors processed by their sys. We can use module GSM information send to robot machine using solar energy. A GSM module will be given to communicate with the robot. User can select options. Here the robot keeps move in one direction. The seed sowing is done by using DC Motor. The complete project will be displayed on LCD screen and solar energy produces the power to robot unit over sun light. In GSM application we need to set the number of columns and number of the steps for the movement for the robot. Complete agriculture land will be divided into columns and number of steps. Here Thingspeak cloud service is creating for users, when user feeds in the information, the message will send to serve r. The Booster will be the battery and solar voltage. Through the input from the mobile device the controller operations will be decided.

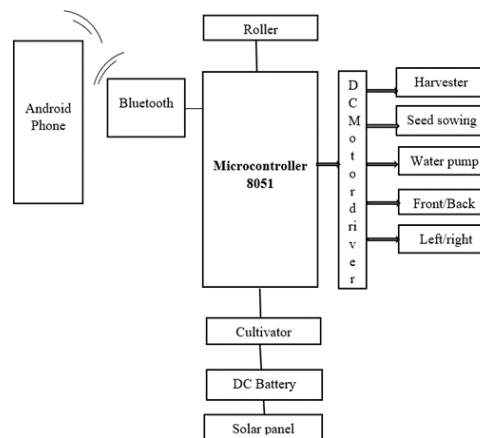


Fig. 1. Block diagram of agribot

2. System Analysis and Design

The below fig. 2 shows overview of system interaction, central to which is the android smart phone which has the application installed. Depending upon the option selected by the

user in the application, the corresponding id of the selected option is sent via radio frequency signals to the Bluetooth receiver on the agricultural robot. Based upon the id received the corresponding activity is performed.

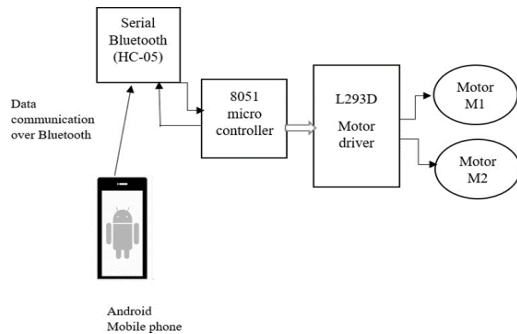


Fig. 2. System interaction

Working of Agribot: Many embedded systems have cross systems with their features and utilities.

In this project design, the structured vortex design is adopted, and the system is mainly composed of single microcontroller CD, GSM and robot.

A prototype module will be developed for the project. It includes a single PCB card for all y interfaces for the block diagram. Each PCB will be connected to the rider. For presentation questions, the LCD screen is used to display all information outside the office. GSM is used to send information to the robot machine; solar energy is used to power the robot unit, singing the robot forward, left, right in a concise manner, dropping the seed in place. Four wheels are attached to the base for the robot's flexible movement. The water pump is controlled by a microcontroller and makes user decisions via relays. Each

piece of information is stored in the database for further processing.

3. Conclusion

This document adopts the design of the seedlings to provide the expected effect. It can be dried as a real-time system and has made some modifications. Science is discovered or created primarily in all fields, so that technology keeps changing songs from time to time. Go yes, most units can be marked in one with a micro story production system. Here, do more of the existing system. The real-time goal is to make the system designed to achieve a larger river rhino component. Agricultural robots can change in any type, as well as can work non-stop unlike humans. The time it takes to complete the five functions is much greater than manually performing the same activity. This is a one-time investment that significantly reduces overall agricultural costs. This agricultural robot acts as a gateway to automated intelligent agriculture.

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