



VOICE CONTROLLED ROBOT VEHICLE FOR FARMING

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ABSTRACT

This report gives the utility of solar strength within the manipulate of robot automobiles using speech recognition. Arduino is used with Android apps for required capability. The Android app connects to the robot's Bluetooth module via Bluetooth. ship commands to the robot the usage of the Android app's voice. at the receiving stop, DC vehicles are connected to a microcontroller for vehicle motion. Bluetooth's RF transmitter gets voice commands that are converted into encoded records in order that the robotic is at a sufficient distance (as much as a hundred meters). The receiver determines the records before feeding any other microcontroller to force the DC motor through the motor motive force IC for the best motive. It also has the ability to paintings in agriculture and is a device to assist manipulate agriculture in agriculture. achievement says we will plant seeds with out shifting our bodies

Keywords:- Arduino, Bluetooth, Android, Automation, iot, RF Transmitter etc.

I. INTRODUCTION

From long time in the past mostly, the controlling is achieved manually which include seed sowing inside the farms and flora however as the time surpassed the appearance of automation gives the person alternative manner to control such home equipment without the want for the person to stroll. The advancement mention is that without transferring our frame we are able to sow the seeds and with the assist of net of factors (IoT) era. We use cell smartphone and an app to talk with the tool.

Voice recognition is the system of taking spoken phrase as an enter to this system. it's miles the capacity of the device to get hold of and interpret dictation, or to apprehend and perform spoken instructions. shifting records or commands via voice is a natural method and studies in Speech reputation or voice popularity are actively beneath process.

The intention of this tool is to listen and act on the commands received from the user. the 2 automobiles are related with microcontroller through motor driving force integrated circuit. Bluetooth managed robot worried building a robotic that may acquire commands via Bluetooth and then execute the ones commands the combination of manipulate unit with Bluetooth tool is achieved to seize and read the voice instructions. The robotic automobile then operates as consistent with the command acquired through android utility.

The receiver stop reads those instructions and translates them into controlling the robotic vehicle.

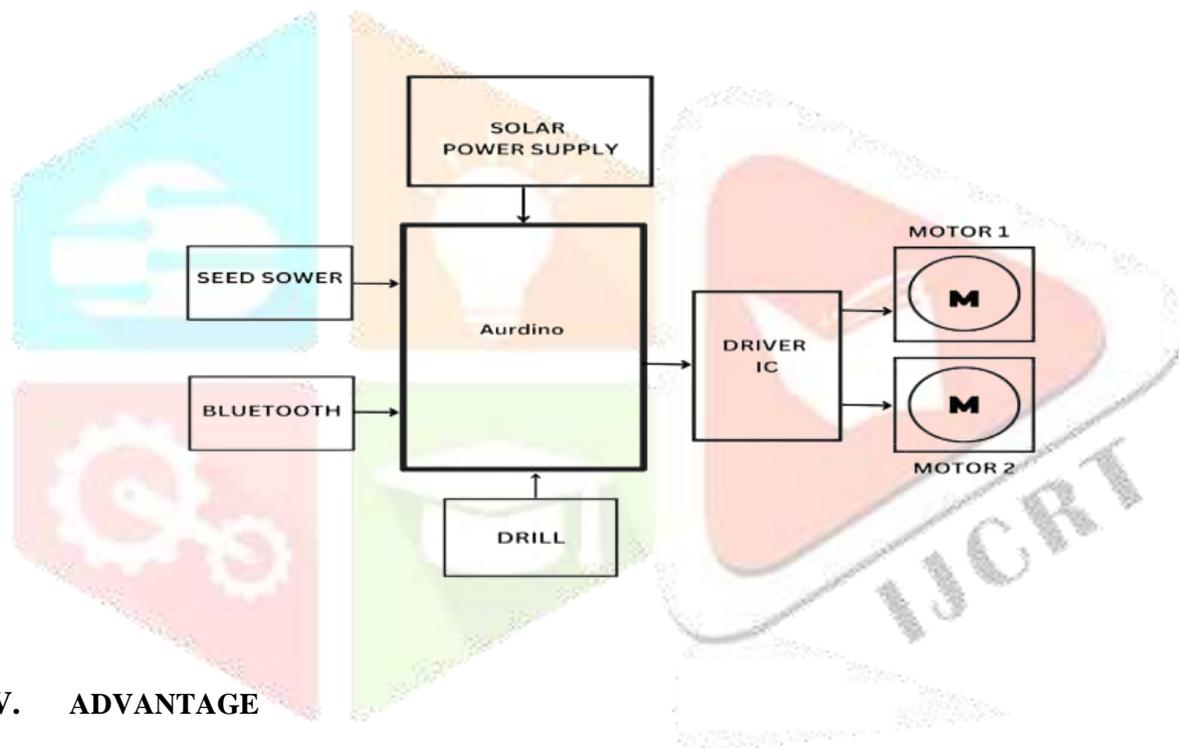
The android tool sends instructions to transport the car in ahead, backward, proper and left guidelines. After receiving the commands, the microcontroller then operates the cars I order to move the car in four directions. The communicate between android tool and receiver is sent as serial conversation information. The microcontroller application is designed to transport the motor through a motor driving force IC as in line with the commands despatched by means of android device.

II. OBJECTIVE

Primary goals of this paintings can be illustrated as:

In this paper the main goal of this task is to layout an agricultural robot which enables the farmers to automate their basic guide paintings in the farms like seed sowing etc. essentially, farmers bring the seeds on themselves or at the tractor which uses power or petrol or diesel however with the help of this robotic these kinds of deviations are long past. And it's going to assist the new farmers to educate themselves by means of expertise few technologies. besides that, this robotic gives farmers a better protection in opposition to any dangerous insects or pests due to the fact by means of the use of an automated robotic they don't need to walk within the farms. The goal of this project is to listen and act at the instructions of the person. a previous preparatory session is needed for the easy operation the robotic by means of the person. For the same a code is used for giving preparation to the controller. whilst we are saying voice control, the first term to be taken into consideration is Speech recognition i.e., making the machine to recognize human voice. Speech recognition is an era in which the system knows the words (no longer its which means) given thru speech. Speech is an ideal method for robot manipulate and verbal exchange. The speech popularity circuit we can define; features independently shape the robotics' main intelligence [central processing unit (CPU)]. This a good thing as it doesn't take any of the robotics' essential CPU processing power for word popularity. The CPU must simply poll the speech circuit's recognition traces sometimes to check if a command has been issued to the robotic. we will even enhance upon this via connecting the recognition line to one of the robotics' CPU interrupt lines. via doing this, a recognized phrase could cause an interrupt, letting the CPU understand a recognized phrase had been spoken.

III. SYSTEM BLOCK DIAGRAM



IV. ADVANTAGE

1. Using this project, we can sow the seeds with the help of a robot which supports the farmers in their farming works.
2. This project can be further expanded using some advancement by including some more sensors, other hardware and automatically adjust different parameters like number of seeds to sow and water to spray etc.
3. The same robot can be used in some other fields by alternating some functions like in construction if we remove the seed sowing the same robot can be used to dig the holes, planning the cement and watering the wall.
4. We can access the robot from the distance of meters as we are using Wi-Fi for the connection between robot and the server PC.
5. Voice reorganization is useful to control the vehicle.

V. DISADVANTAGES

1. Even the best speech recognition systems sometimes make errors. If there is noise or some other sound in the room the number of errors will increase.
2. Speech Recognition works best if the microphone is close to the user will tend to increase the number of errors.
3. In Speech recognition system, there is a possibility of unauthorized usage. Since this doesn't depend upon which person is speaking.

VI. APPLICATIONS

- 1.Home computerization.
- 2.Wheel seats.
- 3.Reconnaissance gadget.
- 4.Military applications.
- 5.Industrial Purpose.
- 6.Agriculture Purpose.

VII. SCOPE OF THE PROJECT

For the reason that designed robotic is used best for sowing of seeds, and voice controlled function in future we will try and work on pH meter can be which will determine the pH of the soil which helps to perceive the proper pesticide/fertilizer to be hired Moisture level sensor can be employed to realize about the moisture content gift in the soil of the farmland and with the help of Cloud Computing and solar era the robotic has excessive performance and accuracy in fetching the stay records of temperature and soil moisture within the future.

VIII. REFERANCES

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