



Vidyavardhini College of Engineering
and Technology



AGROBOT

by Using Aurdino

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INTRODUCTION

- As the world's population is tremendously growing every day by day
- But still, there is no autonomous process where the farmer need not spend a lot of energy in his farm
- Smart farming is the application of modern tech... IOT
- Increase the product efficiency, quality of agricultural products



HARDWARE & SOFTWARE REQUIREMENT

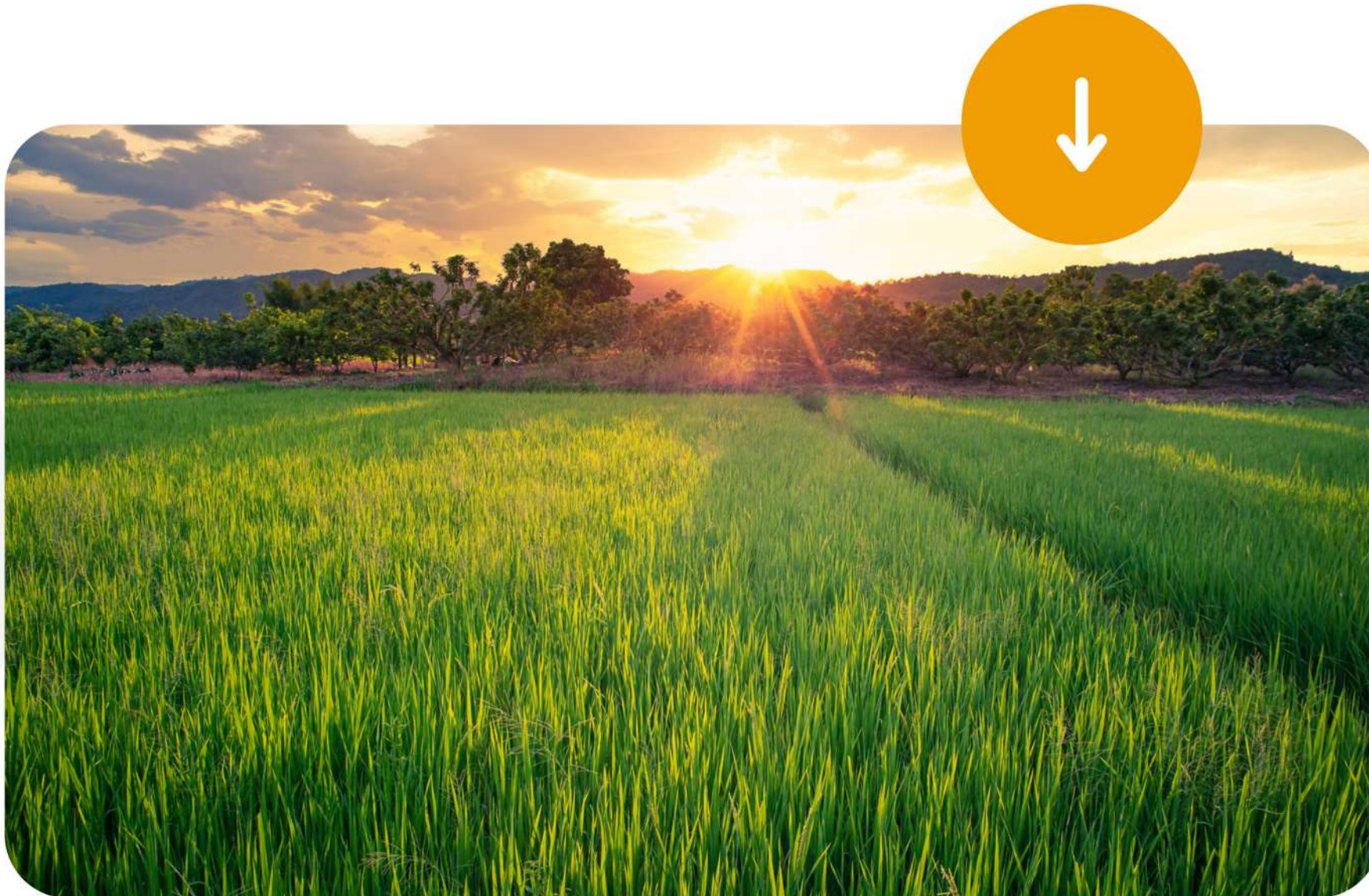
software

- **Arduino IDE 1.8.19**
- **Android APP IDE**

Hardware

- Bluetooth module
- Soil sensor
- Servo motor
- 4-wheel robot chassis
- Pump motor
- Dc motor
- Relay Board
- L293d motor driver batteries
- Arduino Uno

PROBLEM DEFINITION



01

Most of the equipment needed cannot be purchased locally and import is unavoidable so cost increases.

02

Due to improper nourishment of plants productivity decreases.

03

Insufficient availability of fuel, spare parts, fertilizer, and chemicals/reagents.

04

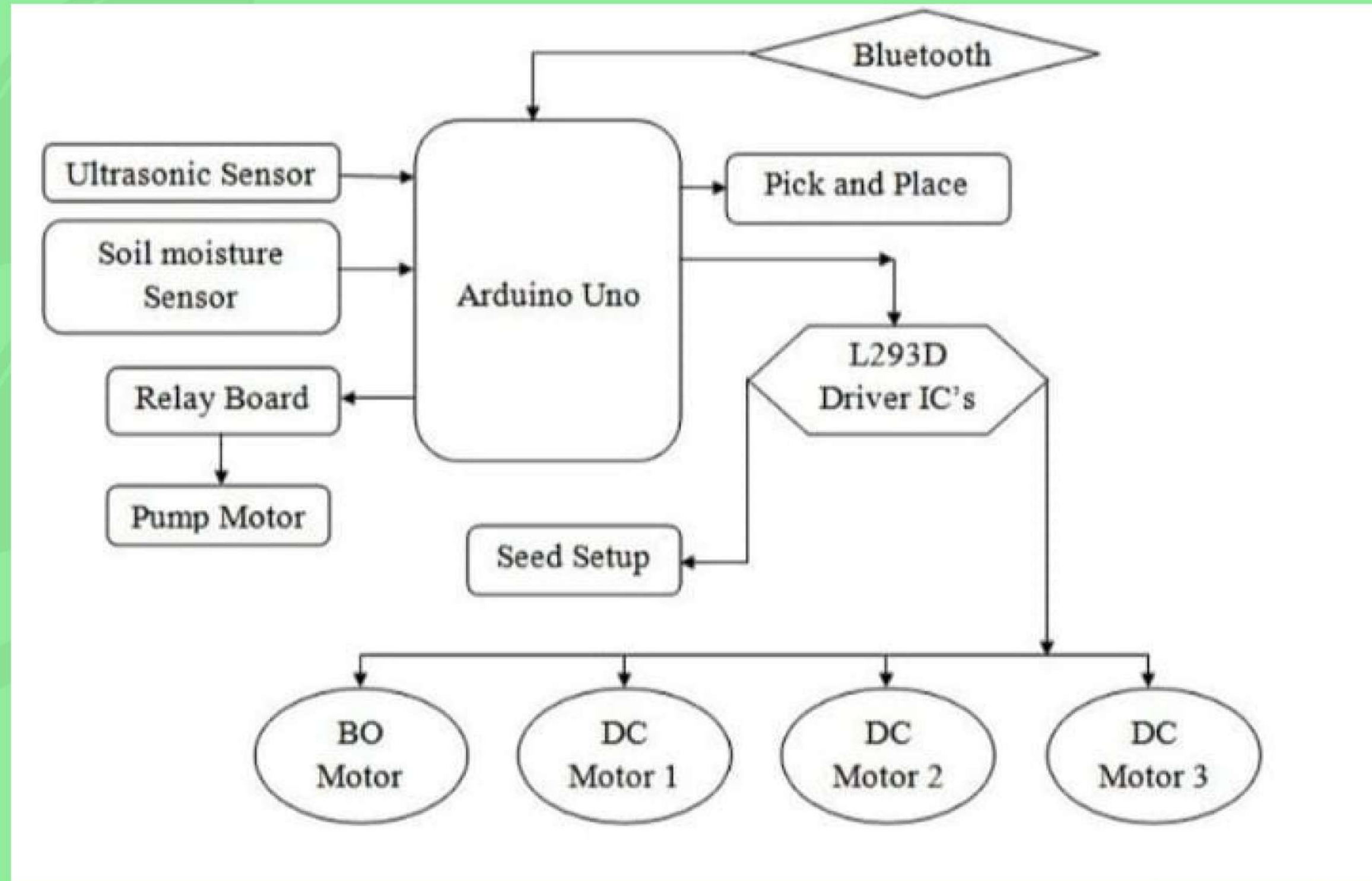
Besides that, there are various kinds of interesting features of our application

Proposed Approach

- We have developed a portable automated irrigation robot system that performs the tasks of the farmers such as sowing the seeds, flattening the land, and spraying water.
- DHT-11 a temperature and humidity sensor collects the temperature and humidity of soil.
- An Aurdino ATMEGA module transmits the collected data from sensors to the mobile application.
- A Bluetooth module controls the direction of the bot. The Servo motor controls the motion of the bot and with the help of the shield efficient power management is achieved. Bot Identify applicable funding agency here. If none, delete this text box. simultaneously plough the land and distributes the seeds.

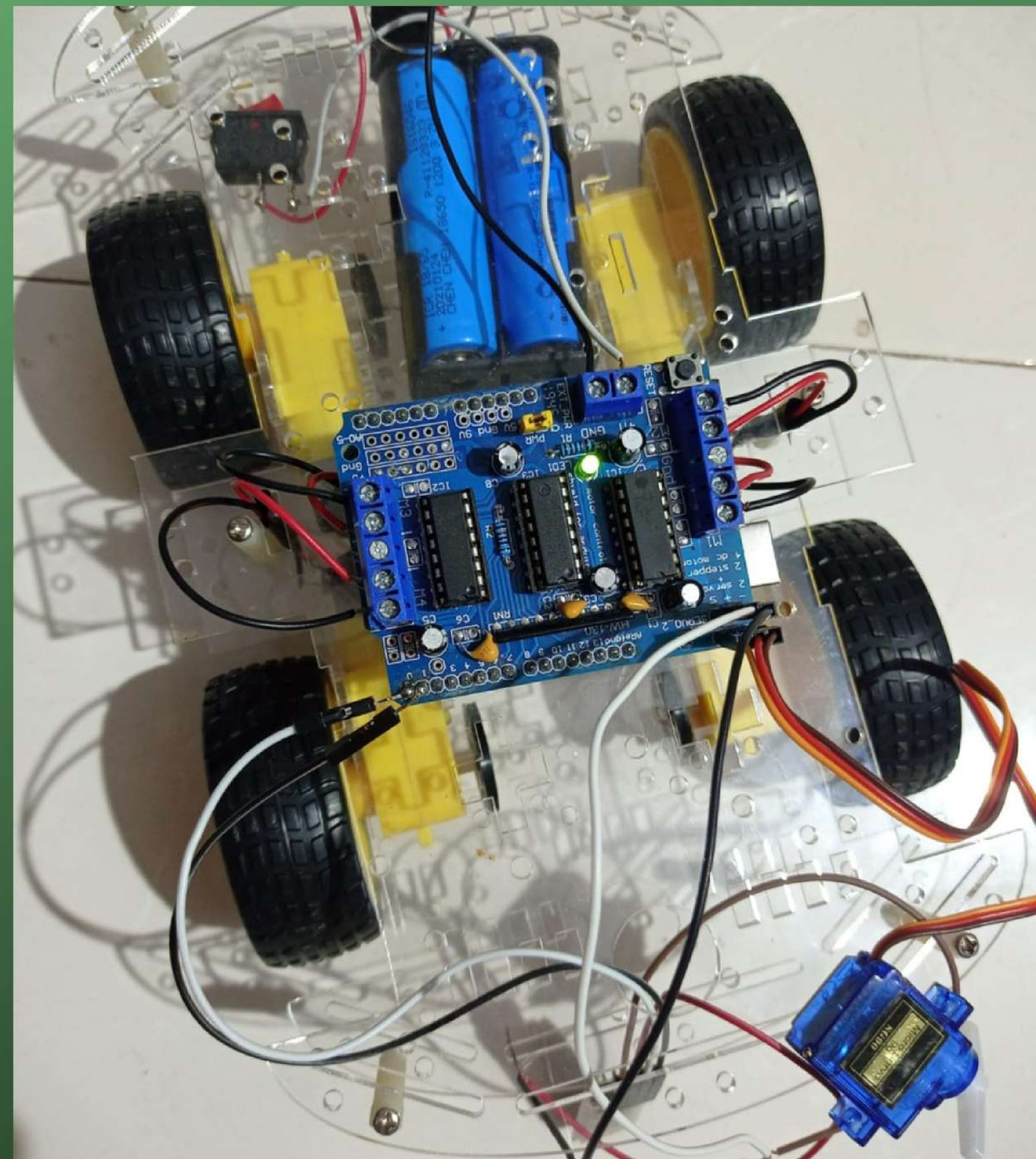
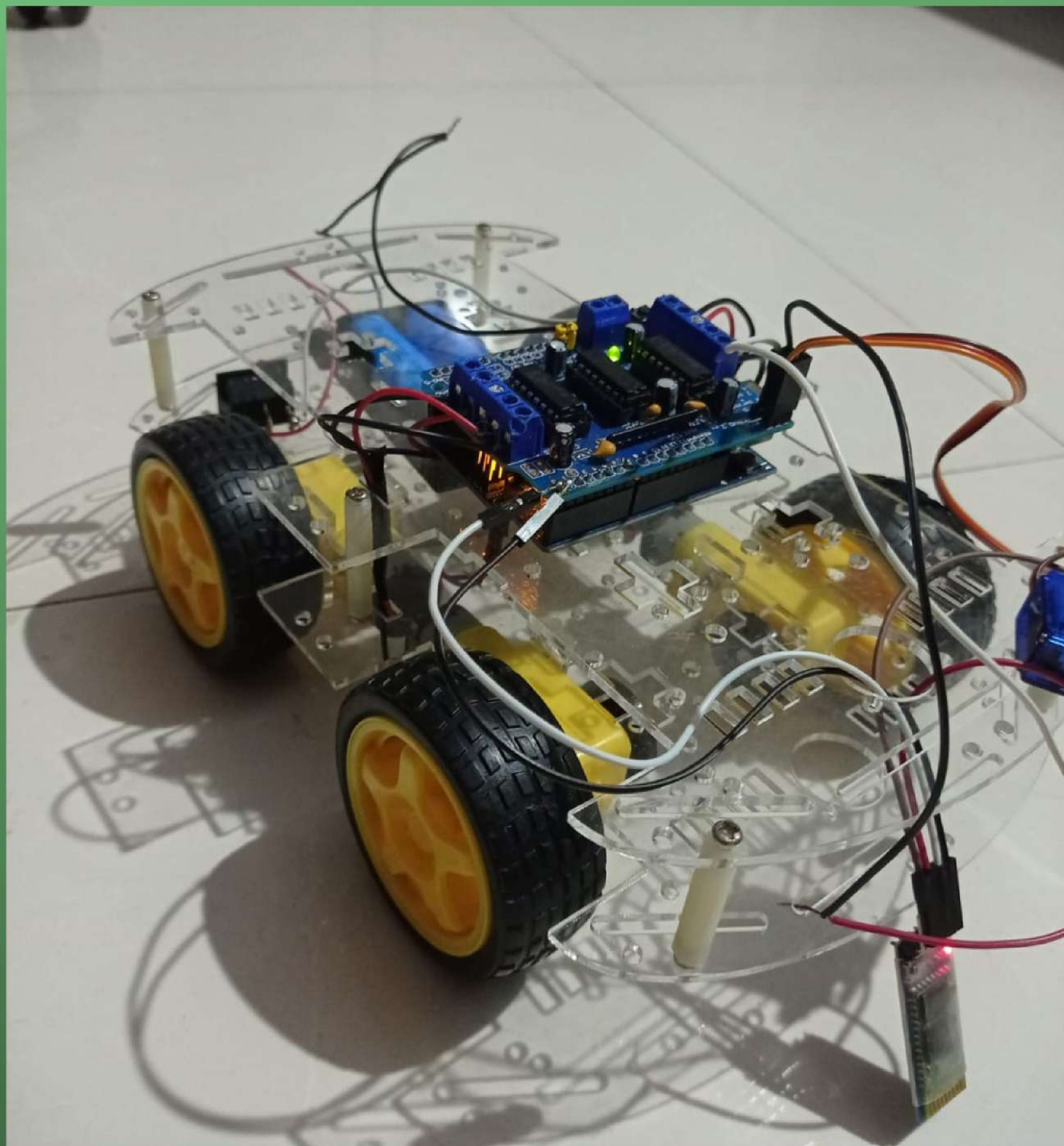


BLOCK DIAGRAM



Result & Conclusion





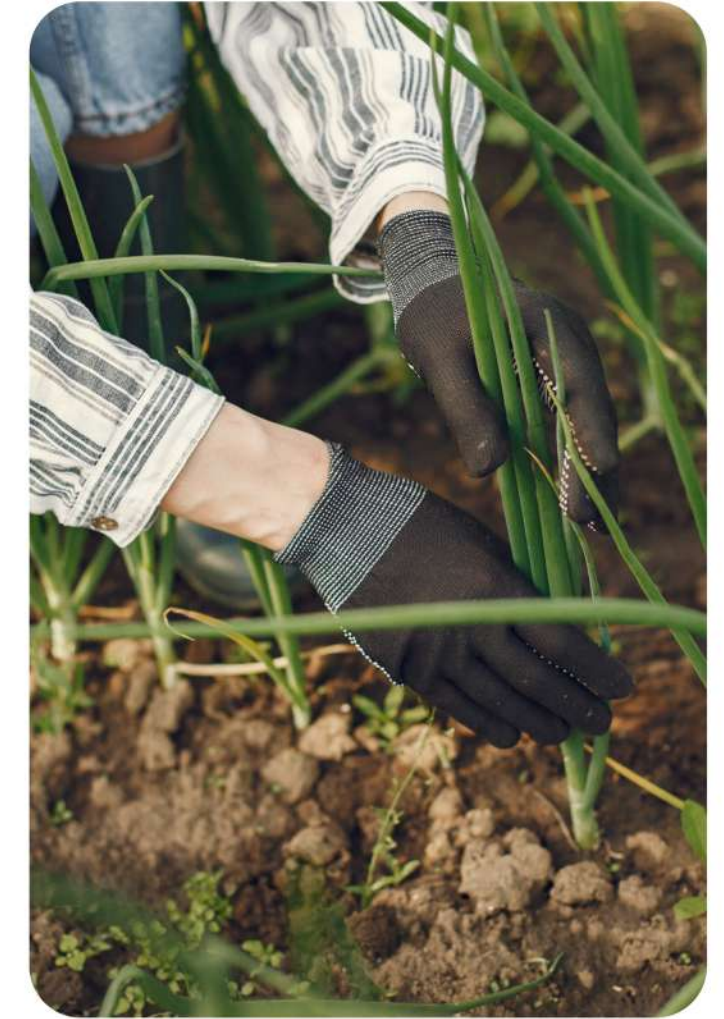
conclusion



The farming system monitors temperature and soil moisture using sensors.

The system has high efficiency and accuracy.

The System has high efficiency and accuracy in fetching the live data of temperature and soil moisture.



With the help of robots, we are able to plow the farm, and simultaneously seed distribution can be done. And it's very eco-friendly for the farm as we think about the price and many more parameters.

Reference

[1] MD. DIDARUL ISLAM SUJON, RUMMAN NASIR, MAHBUBE MOZAMMEL IBNE HABIB, MAJEDUL ISLAM NOMAAN, JAYASREE BAIDYA, MD. REZAUL ISLAM DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING INTERNATIONAL CONFERENCE ON INTELLIGENT AUTONOMOUS SYSTEMS VOLUME: 06 ISSUE: 03 | MAR 2019

2] PAYAL SRIVASTAVA, NEDA, MS.KRITI STUDENT, STUDENT, ASSISTANT PROFESSOR ELECTRONICS AND INSTRUMENTATION ENGINEERING GALGOTIAS COLLEGE OF ENGINEERING AND TECHNOLOGY, GR. NOIDA, INDIA IJEDR | VOLUME 5, ISSUE 2 | ISSN: 2321-9939, 2018 INTERNATIONAL CONFERENCE ON INTELLIGENT AUTONOMOUS SYSTEMS

[3] SAMI SALAMA HUSSEN HAJJAJ KHAIRUL SALLEH MOHAMED SAHARI CENTRE FOR ADVANCED MECHATRONICS AND ROBOTICS UNIVERSITI TENAGA NASIONAL 43000 KAJANG, SELANGOR, MALAYSIA

S. M. Wange, Sanket Garudkar, Akshay Pendurkar, Prashant Roopdas, Pranav Bhandari “Automatic Water Sprinkler System,” International Research Journal of Engineering and Technology, Volume 5, no. 6, June-2018.



THANKS