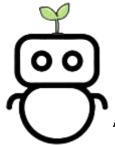
LITTLE FARMER



Automated car impeded systems with information

technology using Arduino and Thingspeak

Afraa AL-Lehyani, Duaa AL-Lehyani, Moroj Zamil, Zahrah Zain, Yara Sembilan.

Supervised by: Dr. Atif AL-Hejali.

Department of Computer Science - Umm AL-Qura University - Makkah - KSA



Introduction: In this project, we focus on the obstacle that encounter the farmers in Saudi Arabia. The solution we are providing is by integrating an already existing technology. We have designed a robot car that will collects the information from the farmland and reflect them on a spreadsheet, the collected data will be temperature, and soil humidity. Those parameters will be measured and logged by an Arduino microcontroller mounted on the robot. Also, it will be equipped with an ultrasonic sensor to stop the robot in case if there was an unexpected object on the rout.

The Objective of This Project: The general objective of this project is to help improve the environment of plants and help them grow in a good environment and the importance of this project lies in:

- Reduce human work.
- Enhance their farmers to reduce crops losses.
- We are going to build a system that uses two sensors to get each parameters, which reduce the costs and make it affordable to all farmers.
- The robot going to move all over the farm which is need only one device to cover all area.
- Utilizing information technology and impeded system to improve farming.

ARDUINO ThingSpeak™

Tools:

Feedback:



Methodology:

Programming Temperature and Humidity Sensor.

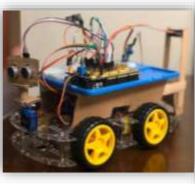
Programming
Ultrasonic Sensor
And Control The
Car Movement.

Build Robot Structure.

Programming Soil Moisture Sensor.

Send Data From
Arduino To
Thingspeak Platform
Over ESP8266 Wi-Fi.

Conclusion:





Future Work: We are looking forward to improving our work by adding Irrigation system to automatically watering the plants when they need. We are also planning to add pesticide system controlled by the farmer to spring it automatically. Also, we are thinking to provide a map at the application to tracking the car with update location points and we plan to make the models using the 3D printer.

Contact Info:

LittileFarmarTeam@gmail.com