

Pesticide Spraying Robot with Electrostatic Sprayer

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Abstract: *In India, the agriculture sector holds the most important place in country's economy. Farmers are continuously searching for new technology to reduce efforts and increase crop yield. As a major player in the agriculture sector, pesticide spraying is the process of utmost importance. But as it has its list of advantages, there are many disadvantages too. With our prototype model we have tried to automate this process and make it more effective. While the robot makes the process semi-automated and convenient, the electrostatic sprayer is designed as it reduces the quantity of pesticide being used. The purpose of electrostatic sprayer is to make the pesticide spraying process more efficient. We have used Arduino for mapping the movements and actions of the robot. The Bluetooth module used is an important part of the robot and mobile interface. The model is designed to be used on a small scale but with components of higher rating the capacity and performance can be improved. The future scope being that we can install GPS and ultrasonic system to make it fully automatic. As with the existing the model the human efforts, time, expenses, and risk of organophosphate poisoning are highly reduced.*

Keywords: Agriculture, Robot, Electrostatic sprayer, Bluetooth module, Arduino, Organophosphate poisoning

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