



## **Automatic Pesticides Sprayer with Rotary Mechanism with Solar**

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### **ABSTRACT:**

Oneself prompted impact sprayer was made at Division of Mechanical planning at babaria groundwork of development by,Dhruv B.Joshi. The subtleties of self pushed impact sprayer are presented in Table This is a four-wheel-drive machine. This is a four-wheel-drive machine. Every one of the four wheels are independently determined by DC Engine. The edge is made up of gentle steel. This is significant piece of this venture it control Remote having range 200 m. It utilize full to convey our water tank. It very well may be use plan and ruff the two surfaces. DC motors were the essential kind of motors commonly used, as they could be controlled from existing direct-current lighting power scattering structures. We use a solar Plate having a area 12×12 it is use to charge the vehicle and pump DC motor.

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### **1. INTRODUCTION**

Oneself prompted impact sprayer was made at Division of Mechanical planning at babaria groundwork of development by,Dhruv B.Joshi. The subtleties of self pushed impact sprayer are presented in Table This is a four-wheel-drive machine. Every one of the four wheels are independently determined by DC Engine. The edge is made up of gentle steel. An upward arm is joined at the focal point of the posterior centralized server, conveying a level arm.

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### **2. Methodology :**

Fist off all go to toy shop to get this toy car RC(Remote control)on which over hol project on which we play in important hole project on which sprayer motor ,solar panel which be fitted (assembly) on it , then we go to over near by fabrication shop for making the structures on which the rotary motors solar panel we will be the fitted. Oneself prompted impact sprayer was made at Division of Mechanical planning at babaria groundwork of development by,Dhruv B.Joshi. The subtleties of self pushed impact sprayer are presented in Table This is a four-wheel-drive machine. The model selfimpelled blast sprayer is displayed in Plate .

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### **3. ASSEMBLY :**

For the making the structures we used the 2/2 metal square pipe & used L channel for adjust This how we mead the structures for over sprayer with rotary mechanism. Were we DC 12v gear motor which is used in rotary plate ,then help to chenge the direction in sprayer nozzle this a four-wheel-drive machine. Every one of the four wheels are independently determined by DC Engine. The edge is made up of gentle steel. An upward arm is joined at the focal point of the posterior centralized server, conveying a level arm. Thenozzles are fitted to the lines which in the focal point of the posterior centralized server. The battery is kept at the front sideand DC Siphon is kept at the posterior of the tank. this machine is controlled by DC Battery. DC Engines

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### **4. MODULE OF THE PROJECT**

[1] Remote control car :

This is significant piece of this venture it control Remote having range 200 m. It utilize full to convey our water tank. It very well may be use plan and ruff the two surfaces. The siphon set up mounted on this Controller vehicle. Its mean Capability convey the siphon during the activity. We use suspension framework in vehicle to lessen the shok and vibration when it is moving



[2] Gear motor :

DC motors were the essential kind of motors commonly used, as they could be controlled from existing direct-current lighting power scattering structures. A DC motor's speed can be controlled over an impressive range, using either a variable stock voltage or by changing the strength of current in its field windings



[3] Solar :

We use a solar Plate having a area  $12 \times 12$  it is use to charge the vehicle and pump DC motor. It mounted on structure having a angle 45 degree it convert sun light energy to electric energy.



[4] DC PUMP:

It is utilized for applying fluid substances, for example, composts and pesticides to plants during the harvest development cycle. It is utilized for applying endlessly water/synthetic arrangements containing acids or harsh materials for crop-execution.



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## 5. RESULT:



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## 6. CONCLUSION:

As the vehicle moves in forward siphon orders and as a result of it strain will be delivered in the tank and pesticide will be splashed out from the spout. This vehicle will be worked by engine in forward course; consequently no wickedness effect will happen to human prosperity. Moreover it covers greater area essentially faster so heaps of time will be saved with this and moreover work cost will diminish and cash saved.

## 7. REFERENCE:

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- [1] Mathew, V.J., Desh, S.K., Das, D.K. and Pradhan, S.C. (1992). Development and testing of a power tiller-operated boom sprayer. *AMA*, 23(4):25-27.
  - [2] Muhammad Iqbal, Hussain Altaf and Munir Anjum (2006).
  - [3] Evaluation of spray uniformity distribution by environment friendly University boom sprayer test bench. *Pak. J. Agri. Sci.*, 43 (2) : 93-96.
  - [4] Padmanathan, P.K. and Kathirvel, K. (2007). Performance evaluation of power tiller-operated rear mounted boom sprayer for cotton crop. *Res. J. Agric. & Biol. Sci.*, 3(4):224-227.