

# Multi-Purpose Agriculture Robot for Autonomous Seeding and Pesticide Spraying

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**Abstract:** *By increasing productivity and sustainability, an autonomous agricultural robot for sowing and pesticide application transforms farming methods. Making use of advanced The robot uses robotics and intelligent sensors to carry out two essential farming activities on its own. Its precision seeding system maximizes crop yields and minimizes waste by guaranteeing precise planting depths and spacing In the meantime, smart sensors reduce chemical use and environmental effect by enabling targeted pesticide spraying and monitoring the presence of pests and plant health. This robot promotes sustainable agriculture practices while streamlining farming procedures and saving time and resources through automated operations. These developments open the door to more intelligent, environmentally responsible and technologically advanced faming solutions*

**Keywords:** Robotic seeding, precision farming, pesticide spraying, autonomous agriculture, and smart farming

