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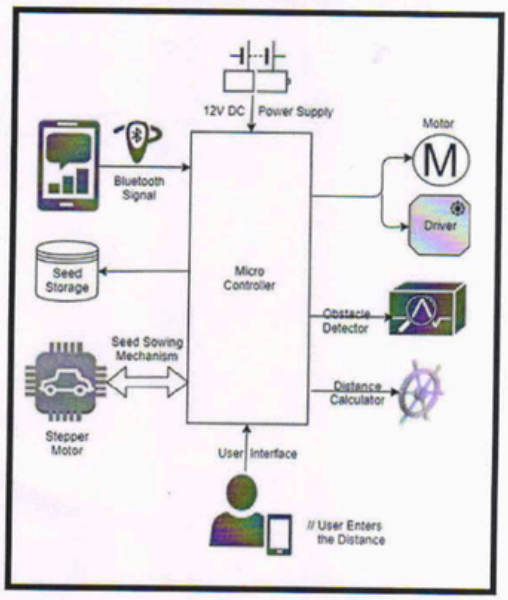
AN AUTOMATED LOW-COST SEED SOWING MACHINE – AN AGRICULTURAL PRODUCT

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

This technology discloses an automatic, low-cost seed-sowing robot designed to automate agricultural seeding processes while optimizing operational efficiency. Built on a closed structural frame mounted on motorized wheels, the robot integrates a seed storage tank, a microcontroller with a Bluetooth communication module, a camera module, and stepper and DC motors for precise motion and dispensing. By employing a distance sensor interfaced with a registered control device, the machine accurately regulates the required distance between sown seeds based on specific crop parameters, eliminating manual labor dependence and resolving uneven spacing issues inherent in traditional farming methods.

Block Diagram



Technical Applications

This automated seed-sowing machine is designed for small-to-medium agricultural farms, commercial nurseries, and precision agriculture operations cultivating row crops such as grains, pulses, and vegetables. It serves as an affordable alternative to heavy machinery, enabling smallholder farmers to streamline land preparation and planting cycles with minimal labor costs and reduced field operation time.

Salient Features

- Sensor-Guided Precision Seeding
- Integrated Wireless Control & Vision
- Compact, All-in-One Mechanical Frame

Glimpse of the Technology

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TECHNOLOGY SECTOR
Clean Energy & Sustainability

IP STATUS
Patent Granted

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TECHNOLOGY READINESS LEVEL
TRL 3

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