Solar Powered Autonomous Multipurpose Agricultural Robot

**Abstract**

Agriculture has always been an important occupation in India. Almost 70% of the population depends on agriculture as their occupation. The present methods of seed sowing, pesticide spraying and grass cutting are expensive and inconvenient to handle. So the agricultural system in India should be encouraged by developing a system which will reduce the man power and time.

Main aim of our project is to reduce man power by developing a robot which does the activities like seeding, ploughing and watering. In addition to this we are using soil sensor to check the moisture in soil. Solar panels are used for power backup. We are developing an android application using embedded C and connect to ESP32 by which we can give the commands to the robot.

It is mainly used in agriculture sectors and local farming. The benefits of robot are reduced human intervention and efficient resources utilization. Instructions are passed to the system which ensures no direct contact with human and thus safety of operator is ensured. The robot is solar powered hence it is renewable energy source. By using this advanced work, farmer can save more time and also reduce lot of labour cost.

**Reference:**

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