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IOT Based Agriculture Robot with WIFI Connection

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Abstract - In india, agriculture provides a living for 70% of the population. however, as the population grows, we see that farms are shared among families; hence, indian farmers usually owned just two acres of land. Farmers continue to use traditional agricultural practices because they are economically disadvantaged and cannot afford to buy tractirs or other costly equipment Generally, many Indian farmers use he-buffalo, horses, and bullocks for agriculture work. This will not be sufficent to meet the energy demand of the agricultural industry in compared to other countries. The machine is capable of doing four farming opration on a small scale: excavation, and spraying. it will perform thet operation using the android app.

***Key Words*:** Agriculture, Farm, Excavation, Spraying, Android App.

1.INTRODUCTION

New ideas in agriculture are crucial for India's most significant vocation, notwithstanding previous efforts. In 1951, just a few tractors were in service, and they were all imported. The farmer's lack of understanding of modern farming methods affected their outlook on crop productivity. The world's biggest manufacturer of tractors is India. However, a tractor alone is insufficient for farm labor. A variety of operations are still carried out by individuals. A system that will carry out the identical activities in place of humans is required in order to increase the work and the agricultural process's capabilities. The tasks w like covering, planting, and excavating seeds. There is a lot of field labor involved in this area of agriculture, including weeding, reaping, seeding, etc. In addition to these tasks, farmers must also spray their crops to protect them against insects, pests, fungi, and diseases. Numerous insecticides, pesticides, fungicides, and fertilizers are sprayed on crops to provide protection.

Since farming was the primary source of income for the populace, farmers needed hand tools to complete tasks and increase labor productivity and quality; as a result, low yield and low productivity led to the development of MAE (Multipurpose Agriculture Equipment).

Since agriculture has evolved, it must discover new methods to increase productivity. One strategy is to use the information technologies that are currently accessible, such as smarter machines, to target and reduce energy inputs more efficiently than previously. A whole new line of agricultural equipment based on tiny, intelligent machines that can act appropriately in the correct way at the right time is made possible by the introduction of new concepts.

2. Objectives

The objectives of our project are:

- First aim of the system to make more accurate and reliable system that will be operated using mobile app having camera interface.
- Develop advanced machine used for crop related works
- Improve farming experience
- Reduce Efforts.

- Increase Accuracy

3. System Design

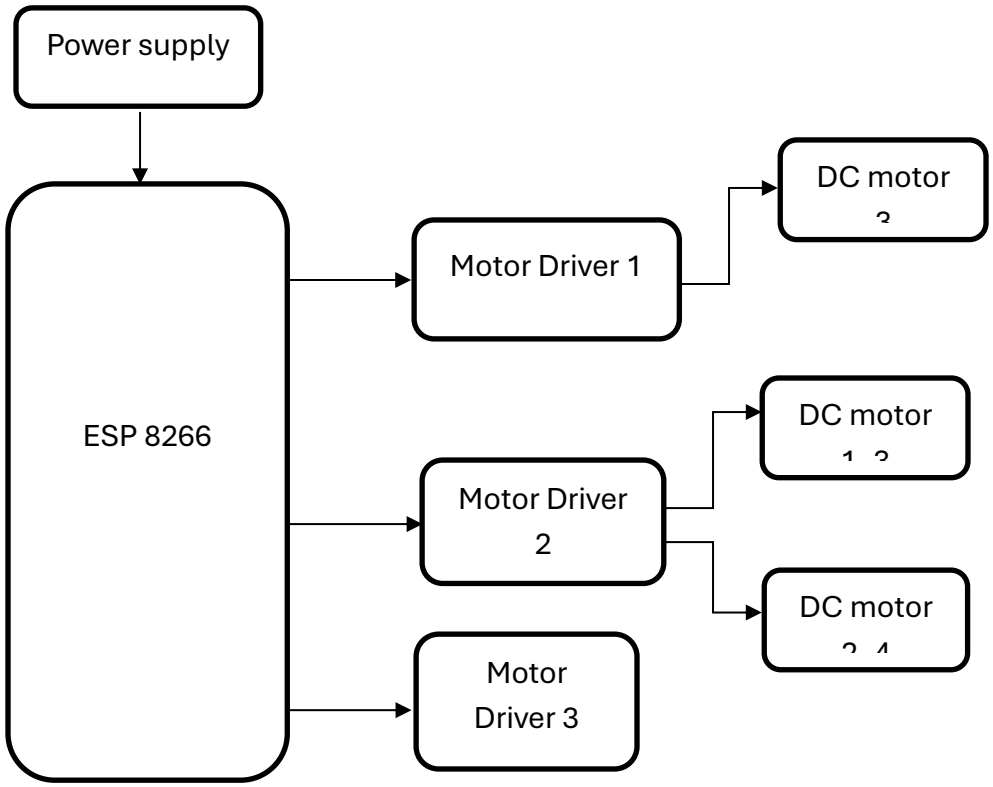

Fig -1: Block Diagram

3. CONCLUSIONS

Agriculture is very important in India and has changed a lot over time. Earlier, farming was done mainly by hand tools and required a lot of labor, which resulted in low productivity. Although tractors helped, they are not enough to complete all farming tasks.

Farmers need modern and smart agricultural equipment to improve productivity, save time, reduce labor work, and increase crop quality. The development of Multipurpose Agriculture Equipment (MAE) and intelligent machines can perform many farming activities like planting, weeding, spraying fertilizers and pesticides.

Therefore, introducing new technology and smart machines in agriculture is necessary to increase efficiency, reduce energy use, and improve overall farming output.

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