AGRI-BOT

GUIDE: Prof.HUSSAIN SYED

TEAM MEMBERS:

- **PERI SHANMUKHA RAM**
- **I.SAI ASHISH REDDY**
- **T.THARUN RAJU**
- **M.NAGARJUNA**
- **N.MANI THEJA**
- **SRIMON DEY**

INTRODUCTION

This project aims to achieve fair means and an easy delivery system for fertilizers, water, etc. soil quality testing is automatically and remotely controlled. This is being developed for the benefit and work easement for farmers. In this model, the user can maintain his crop fields by sitting in one place and not toiling under the sun for hours over acres and acres of land.

ABSTRACT

The concept of di-wheel is introduced in this Agri-bot, thus making power consumption. Less and production were easier. The model includes an extendible plank or Arm with two wheels on both sides, i.e., A di-wheel. This plank consists of two screw gauge actuators that extend the Arm using motors when Required according to field size. This plank consists of the rest of the sensors and delivery systems.

SOFTWARE REQUIREMENTS

1.The software requirements are very similar to that of the quadcopter since we

use RF channels for the controlling of motors to for the wheels and two for the actuator

2. The flight control will be replaced by control of the number of rotations the motors

will make on the field which will be rugged, and hence it is auto-adjusted.

HARDWARE REQUIREMENTS

1. Two Wheels
2. Bike Motor
3. Plant or Arm required for Elongation
4. Lead-Acid Battery
5. Screw gauge actuator
6. Stepper motors for the actuator
7. PPM sensor
8. Soil Moisture sensor
9. Delivery System

RESULTS

- The expected result was to achieve a fully functional model that moves following our needs.

- The procured result is that the motors are moving when suspended in air,

Moreover, the actuators move as desired and extend the arms to change the main body's length.

- But the lack of power is the main challenge which can be easily overcome by attaching a power amplifier to the motors

CONCLUSION

- . As an overall conclusion, the desired di-wheel for plowing, watering activities has been built.
- Designing an actuator was one of the first times. It was a whole new experience that enriched our flare of mechanical knowledge.

REFERENCES

- https://youtu.be/ytaJuQt6d-E