Battery Powered Weeder

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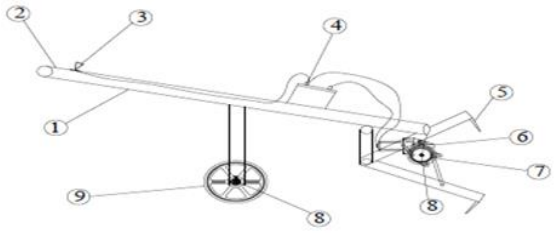
***Abstract* - To prepare a portable weed removing machine for agricultural land and to reduce the human effort of weed elimination and to create a machine for low cost. It would be save the time of farmers and increase the productivity of food varieties. Our aim is to make an effective design of weed removing machine is to minimize the time taken for removing weed present between the growing plants. It is mainly focused to increase the growth rate of plants. This is clear that now a day's most of the farmer are use hand weeder from field and garden. It is very difficult for the farmer to buy expensive machine. So, our team is make battery operated weeder.**

INTRODUCTION

Weed control is one of the most troublesome undertakings in horticulture that represents a significant portion of the cost associated with farming creation. Farmers generally expressed their concern for the effective weed control measures to arrest the growth and propagation of weeds. In Indian agriculture, it is a very difficult task to weed out unwanted plants manually as well as using bullock operated equipment's which may further lead to damage of main crops. In excess of 33 percent of the expense brought about in development is occupied to weeding tasks there by diminishing the benefit portion of ranchers. A weed is essentially any plant which grows where it is unwanted. A weed can be thought of as any plant growing in the wrong place at the wrong time and doing more harm than good (Parish, 1990). It is a plant that competes with crops for water, nutrients, and light. This can reduce crop production. A few weeds have helpful uses yet not for the most part when they are developing among crops. Weeds decline the estimation of land, especially lasting weeds which will in general amass on long fallows, increment cost of cleaning and drying crops. Weeds burn through over the top extents of ranchers' time, in this manner going about as a brake on advancement. Weeding is an important but equally labor-intensive agricultural unit operation. Today the agricultural sector requires non-chemical weed control that ensures food safety. Buyers request excellent food items and give extraordinary consideration to sanitation. Through the technical development of mechanisms for physical weed control, it might be possible to control weeds in a way that meets consumer and environmental demands. In Chhattisgarh, rice occupies average of 3.6 million ha with the productivity of the state ranging between 1.2 to 1.6 t/ha depending upon the rainfall.

1.FRAME
2.HANDLE
3.TOGGLE SWITCH
4.BATTERY
5.CUTTER BLADE
6.DC MOTOR
7.SPUR GEAR
8.BALL BEARING
9.WHEELS



WORKING PRINCIPLE

- The project is consisting of frame, DC motor, battery, handle, toggle switch, cutting blade, spur gear, wheels, ball bearing.
- The frame is made up of mild steel which all the parts are mounted on it.
- The DC motor is attached to the cam plate which links, and joints are connected to the cutter which the actuation of the cam plate do the cutting process.
- The toggle switch helps for the on and off of propose.

- The spur gear attached to the cam plate which the DC motor is powered by the 12V battery.
- During the process, the switch is turned on and battery gives supply to the motor which the rotation of the cam plate tends to actuate the blades and movement is done by the manual pushing process.

PROS

- To maximize the availability.
- To incorporate the maximum level of automatic control.
- To minimize mechanical and thermal stresses in start-up and shut down.
- To maximize SOx capturing efficiency at minimum consume of water, NaOH and power.
- To allow safe start up, synchronizing, running operation, and shut down.

APPLICATION

- It can be used in the industries, factories etc.
- It is also used in the small-scale industries.

CONCLUSION

A strong multidiscipline team with an honest engineering base is critical for the event and refinement of advanced creating by mental acts, editing techniques, diagnostic Software, algorithms for the dynamic exchange informational different levels of hierarchy.

This project work has provided us a wonderful opportunity and knowledge, to use our limited knowledge. We gained plenty of practical knowledge regarding, planning, purchasing, assembling, and machining while doing this project work. We are proud that we have got completed the work with the limited time successfully. The "BATTERY POWERED WEEDER" is functioning with satisfactory conditions. We are able to understand the difficulties in maintaining the tolerances and also quality. We have done to our ability and skill making maximum use of accessible facilities. last remarks of our project work. Thus, we have got developed a "BATTERY POWERED WEEDER". By using techniques, they will be modified and developed per the appliance.

REFRENCE

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