



## Title of the project (Calibri 30 Pt)

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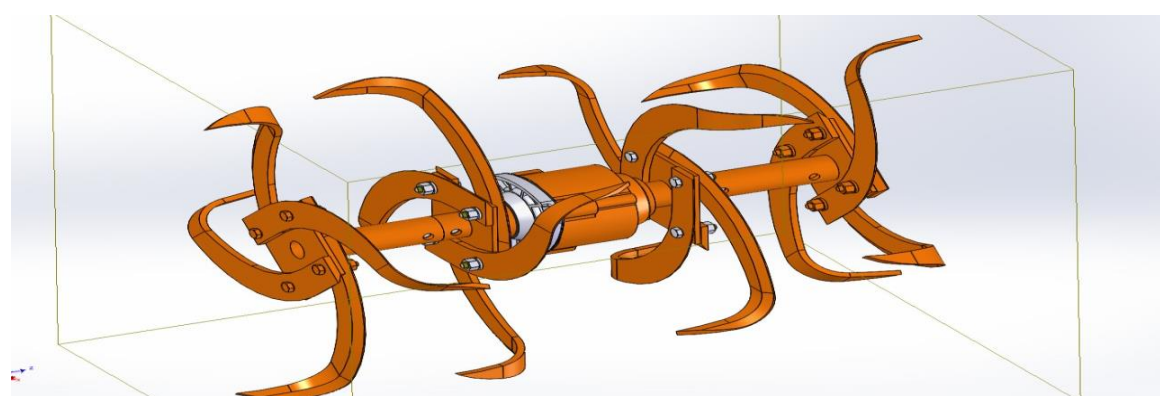
### Abstract

The aim here is to increase efficiency, reducing time and effort require in a weed removing process by introducing a new manual tool with simple blade - rotor assembly operated via shaft (handle). The cutting mechanism inspired by simple lawn grass cutter and a flap for sweep mechanism.

### Problem Definition and Objectives

Proposing an alternative of conventional method of weed removal.  
Improving Manual Tilling, Removing weeds in scientific manner, Reducing Labor Force, Environment Friendly Tool, Affordable Tool

### State of Art



### Methodology

Blades are here for cutting the weeds and break the topsoil simultaneously and the flap mechanism attached with it will sweep the weeds and grass along with it which can be collected at end. All this activity will be operated by push by hands .

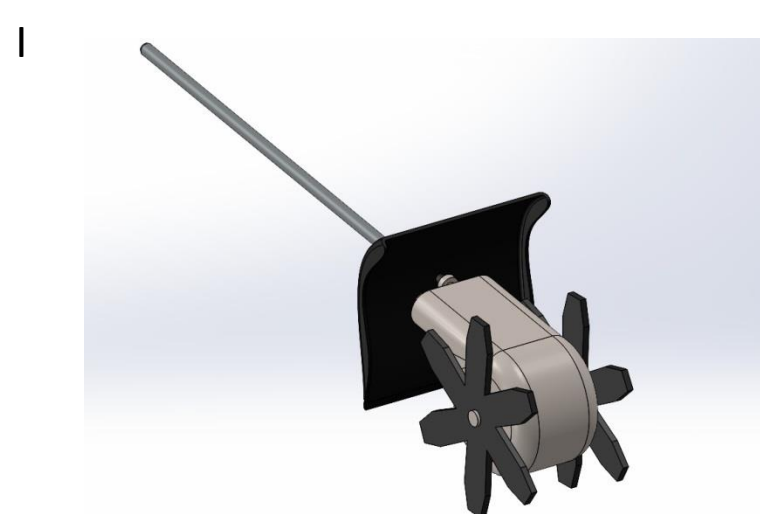
### Solution

Mounting Twisted L-shaped blades  
on the roller.

Portable with space between plants.

Twisted L-shaped blades can  
cut the weed and invert the  
topsoil simultaneously.

### Results/ Hardware Implementation



### Project Outcome

It requires only 0.00233HP which very low and can easily achieved by average man with minimum effort.  
Weed removing efficiency close to 81.6%

### Novelty

The inspiration derived from normal lawn grass cutter , and hand operated mono wheel based cultivator.



### References

- Acharya Narendra Deva University Of Agriculture And Technology, Kumarganj, Ayodhya.
- CSIR durgapur(journal on applied Mechanical Engineering for SWM analysis).
- Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh.