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SOLAR POWERED REMOTE CONTROLLED MULTIPURPOSE GRASS/PADDY CUTTING MACHINE

Amey A. Shenai [1], Saurabh S. Dubal [2], Ganesh M. Morkane [3].

[1] *Students of B.V.C.O.E.K Mechanical (India)*

[2] *Students of B.V.C.O.E.K Mechanical (India)*

[3] *Students of B.V.C.O.E.K Mechanical (India)*

ABSTRACT:

India is land of agricultural. The grass cutter are required to maintenance of the garden and farm. Currently available grass cutters in market are electrically operated. So we try to introduce solar operated grass cutter. Which is multipurpose glasscutter, paddy cutter as well as able to spray the fertilizers.

Keyword: grass cutter, solar operated, multipurpose, paddy cutter, spray fertilizers.

I.INTRODUCTION:

India is nation of agriculture, in which more than 50% of peoples are working under agriculture field. In addition to that gardening also important role in urban areas. So maintenance of that garden is necessary.

In market different types of grass cutter machines are available. Which manually type, semi-automatic or fully automatic. So we are going to develop machine operated on solar energy which is fertilizer sprinkler operated on remote control.

A mower is machine that cuts grass or other plants that grow on the ground. There are so many traditional term for harvesting grain crops, e.g. with reapers and combines. The literature review is given by some researchers are given below.

A.p. magar, M.d. abuj, t.b. bastewad and p.v. adagale carried out a performance an evaluation of grass cutting machine. The speed of machine was 2km/hr. The capacity of the machine was .07 ha/hr.

Bharaneedharan Muralidharan and Ranjeet Pokharel manufactured cheap grass cutter which is operated manually. This was the most economical one but required more time to cut the grass because of its design drawbacks.

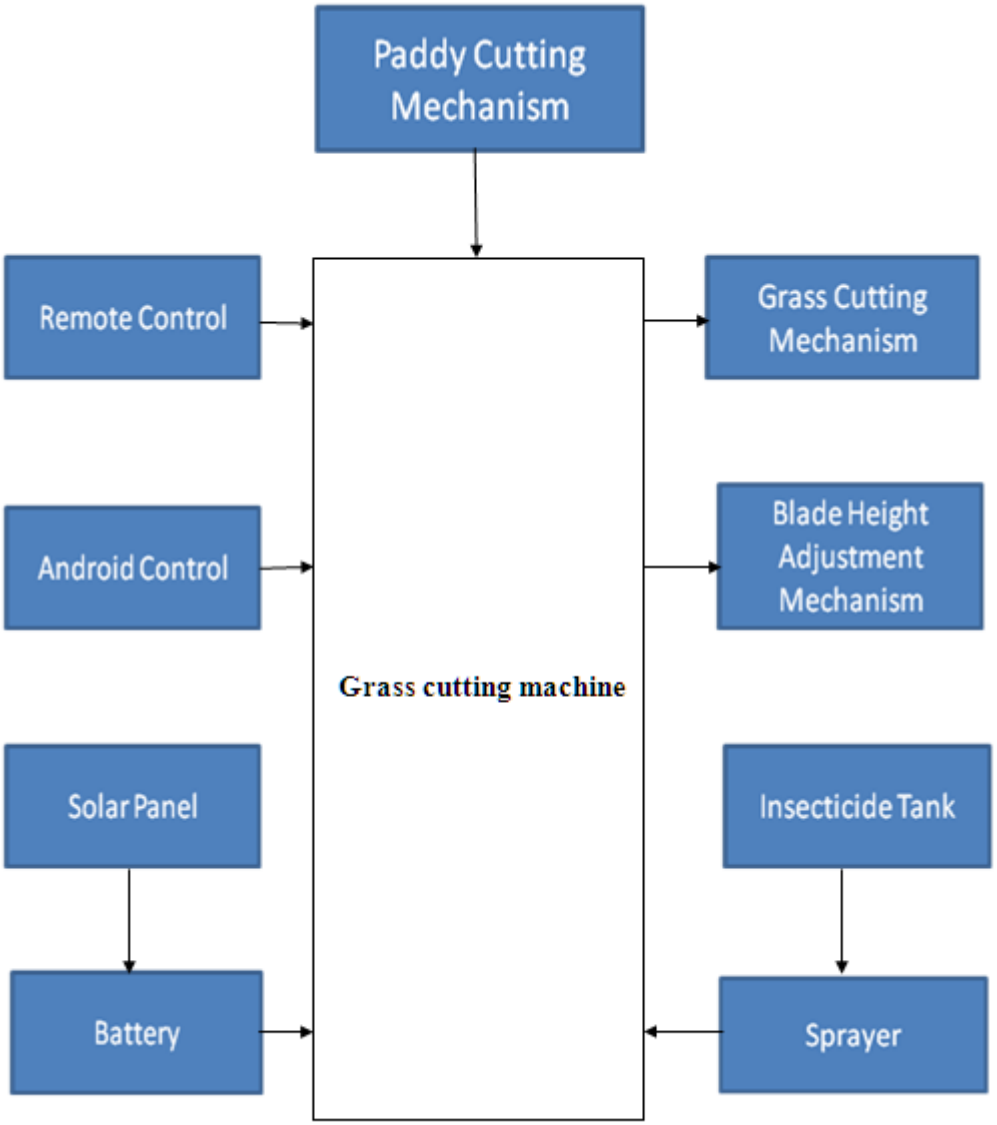
P.Amrutesh, B.Sagar, B.Venu introduce a grass cutter with linear blades by using scotch yoke mechanism. Its efficiency is improved. Their main aim in pollution control is attained through this. This machine can be operated by unskilled person. In this project, — Yoke mechanism is used.

Sujendran .S, Vanitha .P developed automated machine for trimming the grass. The machine is use up of linear blade. The battery can be charge by using power supply and solar panel. IR sensor is used for detecting obstacle. In future the automation of the device will play a vital role in world wide.

II.SOLAR OPERATED GRASS/PADDY CUTTING MACHINE:

Solar panel receives solar energy in which Photovoltaic cell convert solar energy into electrical energy. The battery is used to store and supply the energy on which motors are run.

III.CONSTRUCTION:



Paddy cutting machine is use at front of machine for cutting extra grass.

Grass cutting mechanism is use at lower side of machine with blade height adjustment.

Blade height adjustment in this the lead screw is used in this mechanism to cut the grass.

Insecticide tank it stores the fertilizer to spray.

Sprayer use of this tank to spread an insecticide.

Remote control is use to control the machine.

Any android device is also use to control machine.

Solar panel it receives solar energy photovoltaic cell are used in this panel.

Two batteries are use here to store and supply.

IV.ADVANTAGES:

Pollution free machine

Remote operated

Environmental friendly

Compact in size

V.DIS ADVANTAGES:

Initial cost is high.

VI.CONCLUSION:

Solar operated grass cutting machine is convenient to use in rural areas. It is environmental friendly that it is solar operated, it is controlled by using remote control as well as android control. It have insecticide spry attachment.

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