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### **Review on Solar Grass Cutter**

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**Abstract:** This paper consist of overview of various researches on Automatic operated solar based grass cutter. We are go thought a lot of technology that can help the farmer or any of the person who want cut the grass of his garden or his farm. In this paper we have survey the various methodology or different technique that done previously. We have try to build a new type of robot that is more efficient or cost effective robot for farmers.

Keywords: ArduinoUNO, Solarpanels, automatic.

#### 1. INTRODUCTION

In the time of 1830, essential digging tool was liked by Sir. Lord Growing and European country, his point was to hack and grass the sports ground and gardens and compete a virtual job for the readiness of present day style brandishing ovals, and so on. This prologue was to plant tool diode to the occasion of the numerous games, just as for soccer, court game, and so on

Along these lines as of late, there have been many examination approaches made for the route and planning of vehicles. So it got important to present a powerful digging tool with the apparatus of sunlight-based ability to control an electrical engine that progressively turns an edge that will the cutting of a field. The significant alteration we've attempted to make in our framework is that the work of Arduino Uno that goes about as a heart of the grass and, furthermore, utilization of engine drives makes the grass shaper easy to move related to stop once it experiences a snag with the help of distance estimating sensors.

The grass shaper and further more the engines square measure interfaced to a microcontroller that controls the working of the multitude of engines. The identification of articles could be an imperative considering the issue of security of the gathering additionally as well as human, well being, that the little regulator is interfaced with a detecting component unit that completes object location. On the location of the item, a pre modified move is made by the regulator according to the conditions apparent by the detecting component [1].

### 2. LITERATURE SURVEY

## 2.1 A Review of Fully Automated Grass Cutter Using Solar Power (July-2020)

This review paper show about fully automatic grass cutter using solar panel The venture utilized Arduino Uno

microcontroller, electrical engines, batteries, driver engine, and Bluetooth module. The undertaking has 3 classes especially electrical, programming and mechanical. The electrical segments contain electrical components, batteries and engine. 12-volt three Ampere batteries square measure associated with a sequential circuit. The thought process of the power engine controls the speed and bearing of the grass shaper. The code areas manage improvement of the robot Application for remote transmission and building program for the Arduino Uno microcontroller. They utilized the application for creating a partner degree application to deal with the grass shaper. The venture is regularly constrained by the exploitation of the Bluetooth connection. Arduino IDE is utilized to move the code to the Arduino Uno microcontroller. Mechanical segment manages building the case and introducing the wheels, edge and caster wheels of the grass shaper [1].

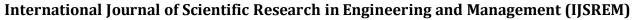
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# 2.2 Review on Fully Automated Solar Grass Cutter (Feb-2018)

This paper depicts the various highlights and advancements present in Robotized Sun oriented Grass Shaper by outlining different examination done over the long run. In the present world, Computerization is a vital piece of creation. As of now, physically took care of gadgets are usually utilized for cutting the grass over the yard. Along these lines, there is contamination and loss of energy. The old grass cutters should be supplanted via robotized one where framework will work for direction and snag identification utilizing battery as a force source. A sun based board will be appended on the highest point of the robot this will lessen the issue of more force utilization. In this paper we are attempting to audit diverse every day reason robot which are utilizing various advances and can cut the grass in yard utilizing IR sensors, ultrasonic sensors, and so on for hindrance identification[2].

### 2.3 Automatic Solar grass Cutter with Collector (May 2019).

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This research paper is called Automatic Solar grass Cutter with Collector, the robot Programmed grass shaper with collector. The robot plays out the activity of grass cutting and gathering consequently. This undertaking will assist with beating the trouble of the current inward ignition motor grass shaper. The primary concern of the model is to run the model utilizing environmentally friendly power to wipe out the contamination gases framed by the IC motor. Our thought is to improve the current model by adding authority to gather grass in the wake of cutting and for controlling different tasks like cutting the grass, collecting the grass, moving the robot we are utilizing Arduino uno, For identification of the hindrances an ultrasonic sensor is being utilized. The force supply is given from the battery and the battery is charged by a sunlight oriented board through a sunlight-based charger regulator. This can be worked naturally and furthermore, physically by utilizing Bluetooth where the Bluetooth module is with ArduinoUno.[3]

#### 3. CONCLUSION

We have studied various type of solar based grass cutters and those have different methodology and operation but those project need more efficiency and the robot dependency and it totally work automatically without any human involve.

### REFERENCES

- [1] Shubham R. Khillare, Deepak P. Morey2, Bhagyashri A. Ghoti, Shaileja S. Thorat, Swapnil D. Pimple, Manmohan O. Sharma," A Review of Fully Automated Grass Cutter Using Solar Power", International Journal of Research in Engineering, Science and Management ,Volume-3, Issue-7, July.2020
- [2] Prof.SaurabhWanjari , Swapnil Nikam, Sunil Gaudase , AkshayKuchekar , Sandip Radkar,"Design and Manufacturing Of Fully Automated Solar Grass Cutter", International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 6,Issue VI, June 2018.
- [3] Arun Kumar VB, Manjunath S,1Najeebulla Shariff, Sagar V,Dr.Rashmi S," Automatic Solar grass Cutter With Collector", Journal of Emerging Technologies and Innovative Research (JETIR), Volume 6, Issue 5, May 2019.
- [4] Tushar Baingane1, Sweta Nagrale2, Suraksha Gumgaonkar3, Girish Langade4, Shaila Ramteke5 Prof.V.M.Dhumal6," Review on Fully Automated Solar Grass Cutter", International Research Journal of Engineering and Technology (IRJET), ,Volume05 Issue2, Feb2018.
- [5] Ms. Rutuja A. Yadav, Ms. Nayana V. Chavan, Ms. Monika B. Patil, Prof. V .A. Mane. Automated Solar Grass Cutter in International Journal of Scientific

Development and Research(IJSDR). Vol.2, February 2017.

ISSN: 2582-3930

- [6] Bidgar Pravin Dilip, Nikhil BapuPagar, Vickey S. Ugale, Sandip Wani, Prof. Sharmila M. Design and Implementation of Automatic Solar Grass Cutter in International Journal of Advanced Research in Electrical(IJARE), Vol.6, April 2017.
- [7] Ms. Bhagyashri R. Patil, Mr. Sagar S. Patil. Solar Based Grass Cutting in International Journal of Electrical and Electronics Engineers (IJEEE). January-June 2017.
- [8] Srishti Jain, Amar Khalore, Shashikant Patil. Self-Efficient and Sustainable Solar Powered Robotic Lawn Mower in International Journal of Trend in Research and Development (IJTRD). Vol.2 issue6, December 2015.

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