

FABRICATION OF AUTOMATIC SOLAR GRASS CUTTING ROBOT

ABSTRACT

The present technology commonly used for trimming the grass is by using the manually handle device. In this project we have automated the machine for trimming the grass. The device consists of linear blade which is operated with the help of the motor the power supply for the motor is by using battery. The battery can be charge by using power supply and solar panel. In case of any obstacles in the path it is sensed by using an IR sensor. If there is any variation then the device using free direction sensor and find the new path to travel. The above feature is enabled so that the damage to the hardware of the device is avoided. In future the automation of the device will play a vital role in world wide.

This article presents a review of researches done on the subject of automated tractor. An autonomous tractor is a vehicle that can operate without or with minimal human control, self-propelled and guided automatically along a desired path. The benefits from such a system are useful for agriculture industry by reducing labor cost and time, as well as improving output efficiency by eliminating human errors. Many researches and inventions have been made, with the results ranging from successful, encouraging to some that are impractical for commercial implementation for certain reasons. These implements include sensor, global navigation satellite system, machine vision, laser triangulation, ultrasonic transmitter and geomagnetic controller, as well as actuator and servo motor.

INTRODUCTION

Now a days there are lots of development work has been pending but there are still some labor power which requires lots of income distribution for a small work. So this is required that some work should have some other alternative so that the labor power wastage can be avoided. So in our project we are trying to make a daily purpose robot which is able to cut the grasses in lawn. The project work will be done according to the proper application based fabrication. The system will have some automation work for guidance and other obstacle detection. The system will have a power source that is battery and a solar panel will be attached on the top of the robot. Moving the grass cutters with a standard motor powered grass cutters is an inconvenience, and no one takes pleasure in it. Cutting grass cannot be

easily accomplished by elderly, younger, grass cutter moving with engine create noise pollution due to the loud engine, and local air pollution due to the combustion in the engine. Also, a motor powered engine requires periodic maintenance such as changing the engine oil. Even though electric solar grass are environmentally friendly, they too can be an inconvenience. Along with motor powered grass cutter, electric grass cutters are also hazardous and cannot be easily used by all. Also, if the electric grass cutter is corded, mowing could prove to be problematic and dangerous. The prototype will also be will be charged from sun by using solar panels.

TECHNOFIST