

# Automated Lawn Mower using IoT

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**Abstract**— The importance of lawn care simply cannot be ignore Mumbai, India, as your lawn is a contributing factor to the beauty of your house. It needs care on regular basis. This paper is about lawn maintenance and care. The proposed method is to design a robot that can be used for lawn care which will be operated by mobile phone to minimize human efforts. The goal of the project using a easy-to-device to reduce end-user's work.

**Keywords**— Lawn mower, Mobile App, arduino, lawn care, android, IOT, grass cutter, automation.

## I. INTRODUCTION

Internet of Things (IOT) –A technology which is being used in many of the today's applications and use of which is increasing rapidly on daily basis. In this technology many embedded systems, different sensors work together other and interact with each other using internet and information exchange is done through a wireless network.

Many problem are solved using IOT technology such as home automation which minimize the wastage of resources as well as minimizes the risk of many accidents , sometimes car doors are open while driving, seat belt is locked in an plane which could result in accident are also being avoided.

Major advantage of IOT technology is ,it provides real time solutions for the given problems.

One of the problem we are dealing in todays world is lawn care. We have to put a lot of efforts in maintaining our lawn. Available tool for lawn care is a mower.

In 1827 first mower was invented and patented by Edwin Beard Budding, an engineer from England.

He got this idea after seeing a machine in a textile industry, a cutting cylinder mounted on a bench to trim cloth to make a smooth finish after weaving. He reused this method by mouting the mechanism in a wheeled frame to make the blades rotate close to tha lawn's surface.

Earlier, lawn mower used to have a gas combustion engine. By 2000, electronic mowers were developed which overcame

the limitations set by traditional mowers, but raised new problems.

Today, newer technology is being used for better versions of mowers. Low emission gasoline engines are being manufactured for reducing air pollution. Improved muffling devices are also used to reduce noise pollution.[4]

Currently, there are no remote control platforms being produced. Evatech , is the only company that produces remote controlled mowers.

## II. PROBLEM STATEMENT

The current situation we face about lawn maintenance is that we have to put lots of efforts to it. We need to keep track of days on which grass is to be mowed. We must go there and cut the grass on our own.

Also the available lawn mowers are not user friendly as well as environment friendly as it emits CO2 and carbon monoxide ,also create noise pollution.

While using electric mowers we have to look out for water so that its parts doesn't get damaged. This project provides the solution for many problems. The project is based on arduino UNO and a mobile application to control the robot.

## III. CURRENT SYSTEM

In current scenario, people need to go on the ground, take out their lawn mowers and mow the grass by themselves , also have to take care of many problems along with it such as tracking days for mowing, take care of environmental issues, have to put extra efforts if grass is thicker, look out for water on the grass etc.

There is no way they can do it much conveniently and seating at one place. Although electric lawn mower has overcame the limitations of traditional mowers, it has different problems to face. In addition , if mower is wired it makes the work more irritating.

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