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# IoT based Climate Reporting Automated Robotic Solar Lawn Mower

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# AUTOMATIC SOLAR LAWN MOWER

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# Introduction

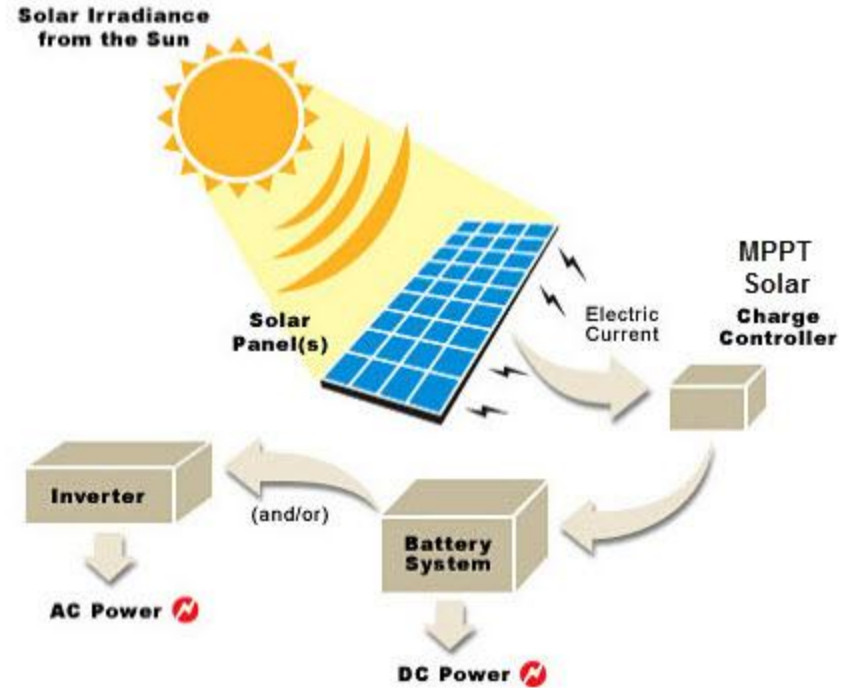
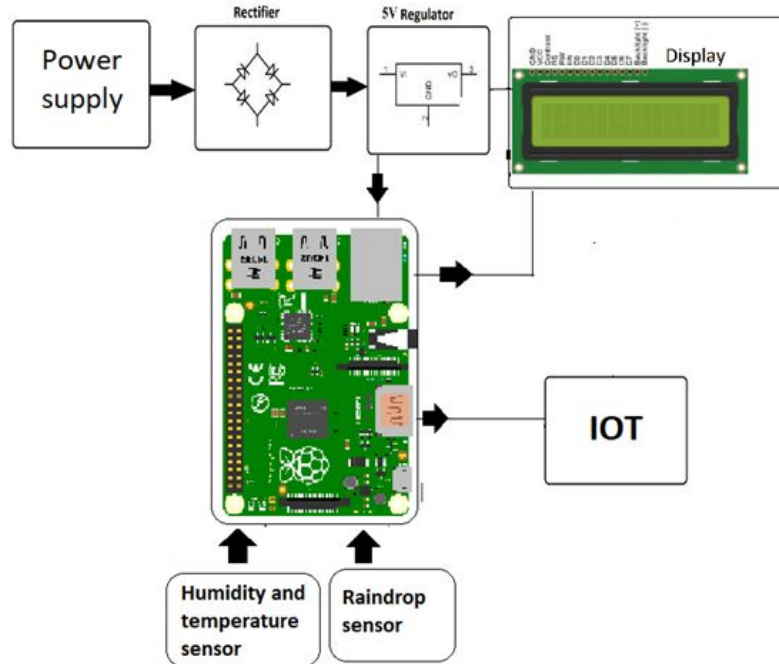


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# TRADITIONAL LAWN MOWER



# Methodology:



# Market Analysis



# Market Analysis


4G 0K/s 5:03 PM 51%

Husqvarna

FROM

**\$2,499.99**

MSRP



**AUTOMOWER® 430X**

967 85 28-05

- Working area capacity (±20) **0.8 acre**
- Cutting Height, min-max **0.8-2.4 in**
- Typical charging time **50 min**
- Typical mow time on one charge **145 min**

Ask an Automower® Pro

connect

Navigation - PATENTED

LED headlights

Superior interaction

Husqvarna

Typical mow time on one charge 70 min

Automower® Connect@HOME

Automatic passage handling - PATENTED


Guide wire - PATENTED

Manages slopes up to 40%

FROM

**\$1,599.95**

MSRP



**AUTOMOWER® 315**

Ask an Automower® Pro

area capacity (±20) **0.4 acre**

Cutting Height, min-max **0.8-2.4 in**

Typical charging time **60 min**

6.4K/s 5:03 PM 51%


Best-Selling Robo...

husqvarna.com

Husqvarna

**\$2,699.99**

MSRP



**AUTOMOWER® 430XH**

967 85 29-66

- Working area capacity (±20) **0.8 acre**
- Cutting Height, min-max **2-3.6 in**
- Typical charging time **50 min**
- Typical mow time on one charge **145 min**

Ask an Automower® Pro

Automower® Connect

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# Customer and Market Research

The market will be **ACCELERATING** growing at a **CAGR** of over

**4%**



## INCREMENTAL GROWTH

**\$1.7 bn**



**53%** of the market share originated from the **AMERICAS** in 2017



The **APAC REGION** has a **HIGHER** incremental growth than the **EMEA REGION**

One of the **KEY TRENDS** for this market will be the growing number of **SMART CITIES AND URBANIZATION**



## READ THE REPORT:

GLOBAL LAWN MOWER MARKET  
2018-2022

**10,000+** reports covering niche topics

NEW RESEARCH AREAS

Read them here:

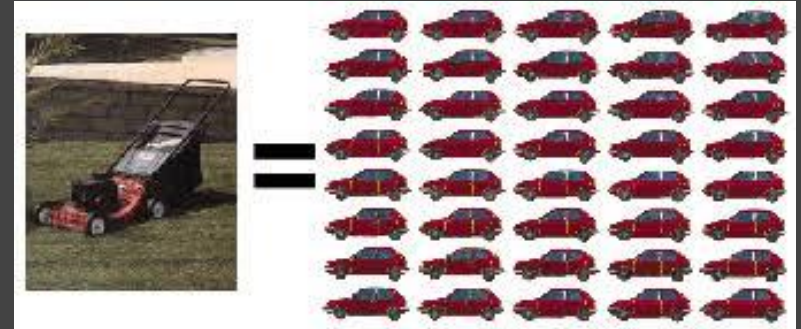
[www.technavio.com](http://www.technavio.com)



**technavio**



# Causes - Effects



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# Causes - Effects



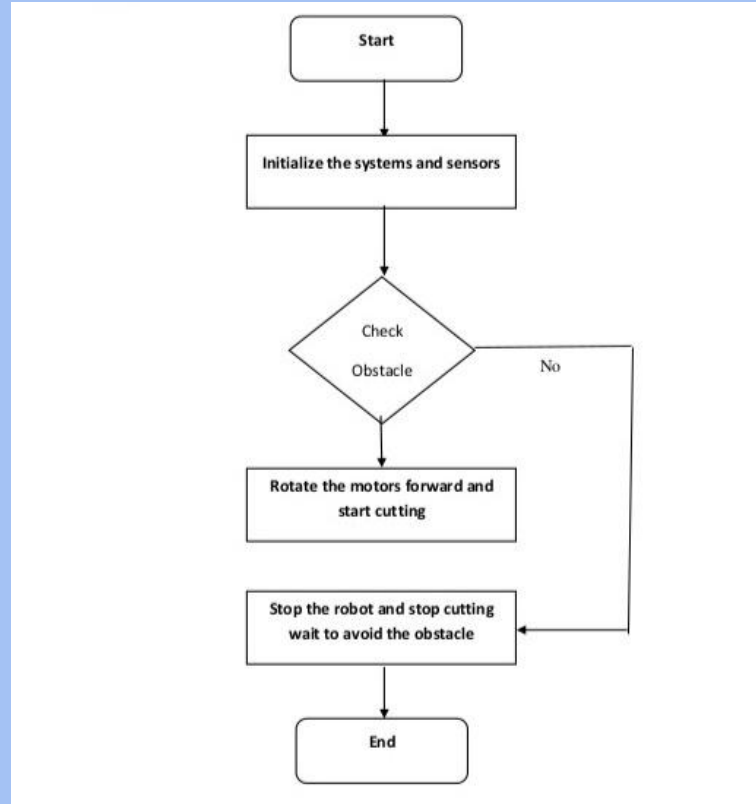
# Causes - Effects



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# Causes - Effects

# IMPLEMENTATION:



# BATTERY EFFICIENCY

## Old system:

Charging time of the battery is equal to the discharging time of the battery in present lawn mowers

## New proposed system:

Here we are decreasing the charging time and increasing the discharging time by stepping up the voltage.





# COORDINATE SYSTEM

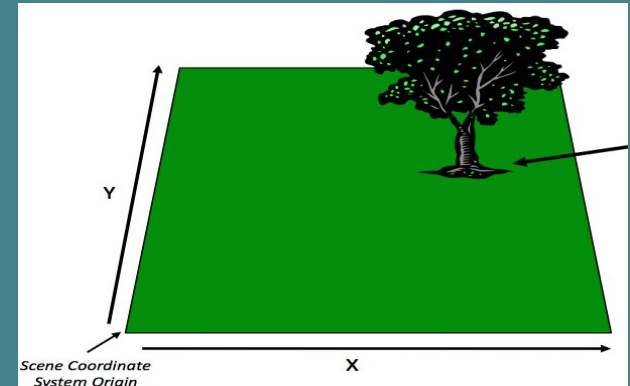
## Old system:

There are charging stations to every lawn mower and guide wires which means that the present environment is disturbed.



## New proposed system:

We are using coordinate system to find the borders of lawn so that the present environment is not disturbed.



# BLADES

## Old system:

Normal blades used in the lawn mower cuts the grass uneven.

Normal blades damages any object or wires in its way.

## New proposed system:

We are using laser cutting blades to reduce the damage to both grass on its cute edge and other objects when goes in contact with blades.



# LIFE OF GRASS

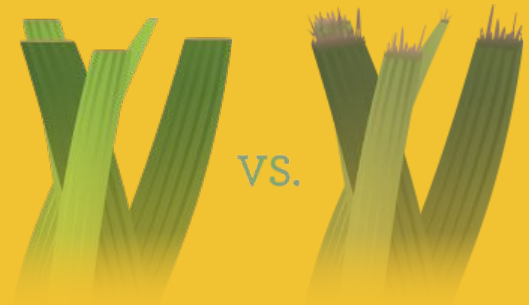
## Old system:

- Normal blades used in the lawn mower cuts the grass uneven and this damages the grass and reduces the growth.

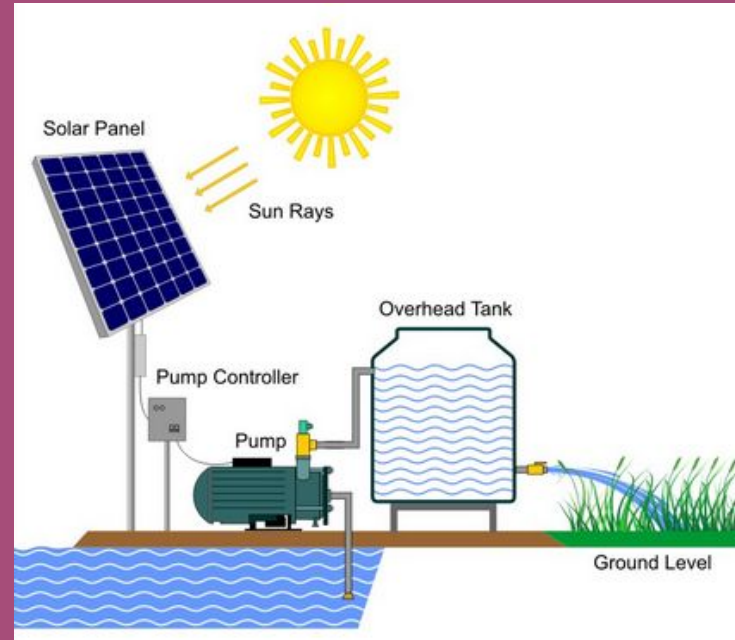
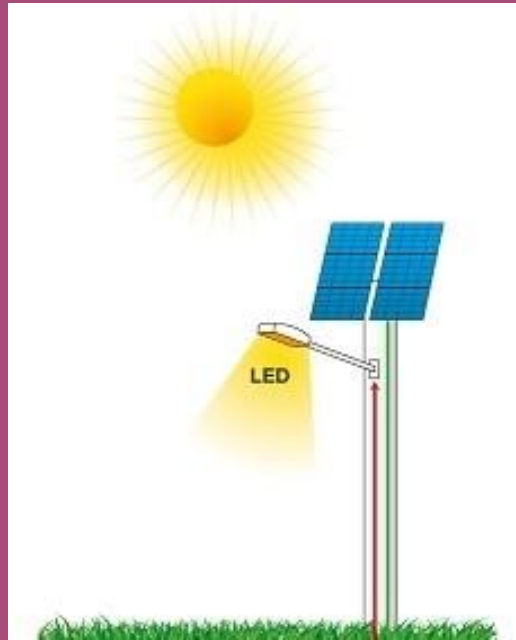
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## New proposed system:

- We are using laser cutting blades which reduces damage to grass on its cut edge this won't disturb grass growth.



# USES OF SOLAR PANEL SYSTEM



# BAGGING

## Old system:

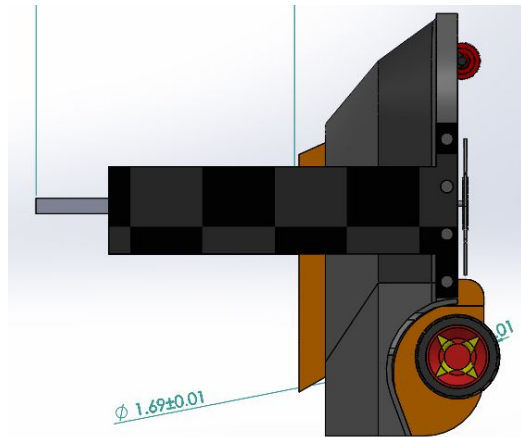
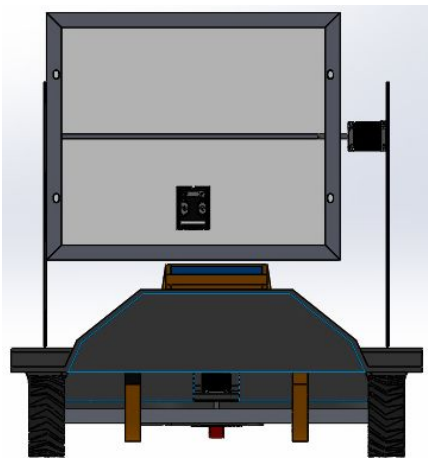
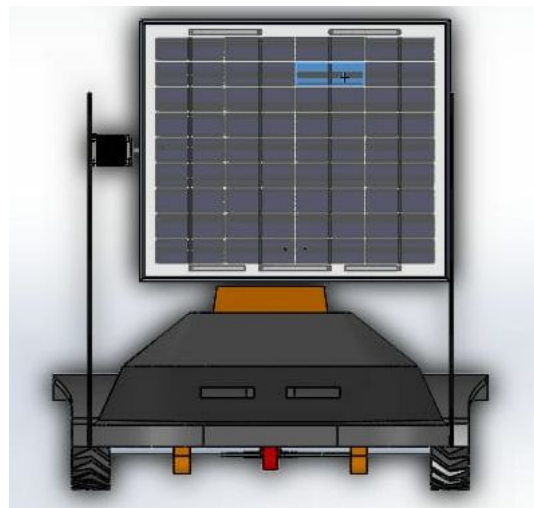
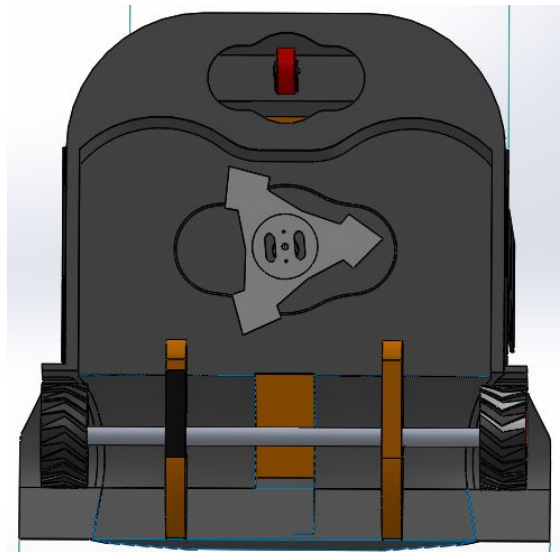
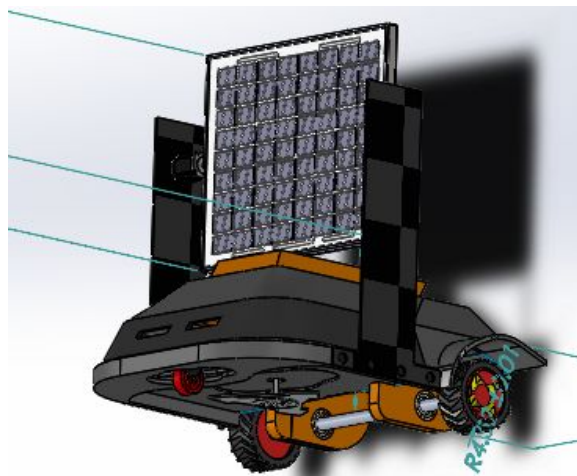
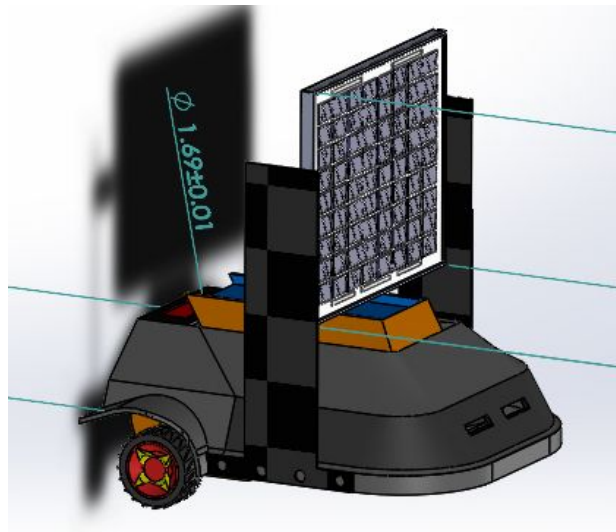
- Here there is a requirement of bag for storing the grass.



## New proposed system:

- The blades used will cut the grass into small chip which is used as fertiliser for the grass itself so no bagging required.









Thank you!