MANUALLY OPERETED ENERGY SAVING FLOOR CLEANER

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ABSTRACT

In India most recently floor cleaning machine is convention type, like as; Electronics. At operating time this electronic floor cleaning machine parts is damaged than suddenly stopped the work. In an electronic floor cleaning machine maintenance cost is higher. So the cost of manufacturing of this machine and source of energy required is higher amount. Then solve this problem, we are made to a mankind comfortable energy saving floor cleaner machine. This project is represents design, development and fabrication of manually operated energy saving floor cleaner.

Keyword : - *Brush, Dust Collecting Tank, Water Storage Tank, Shaft, Chain Sprocket.*

1. INTRODUCTION

In recent years, energy saving research is major attention for mankind comfortable. In recently most type of the floor cleaner is conventional type. Which is totally based on the electrically, so consuming of energy is high amount. Also this type of machine has a major problem like coding problem (robotic type cleaner), sensors problems, etc. So recently try to resolve the problem at a working time. So we try to make a mankind comfortable energy saving floor cleaner by manually control so any unskilled workers can be easily operated the machine.

In conventional type machines at a rainy season, the problem of electrical current so stoppage of machine. This difficulty also improve the energy saving floor cleaner by manually operated. The floor cleaner is used at Hospitals, College, Workshops, Warehouses, Restaurants, Office, Universities, etc.

In an energy saving floor cleaner has a cleaning and the sweeping facilities is also taken. This type of floor cleaner is also can operate at a rough surface, because the smooth brush is cleaned out the dust of the floor.

1.1 Problem Summary

In recently years, the peace of time all the technology is increasing, then increasing the problems. Cleaning is an important factor in everywhere. Government, Railway platforms, Airports, Industries, etc… are used to cleaning machines. These are very costly and can't affordable by small industries and some small platforms like small markets.

Due to this props there exist the requirement of the new technology of cleaning machines. Some of such points are as follows:

- Early different machines are used for cleaning processing like as sweeping and mopping. Such problem created with them are;

- Its cost is higher.
- Electricity/Battery is needed.
- Hard effort is required.

Some sensor is needed. But sometimes it's damage when its repair cost is higher. And sometimes brought to its new.

Hence, it's difficult to buy, this different machines for cleaning purpose like as mopping and sweeping processes.

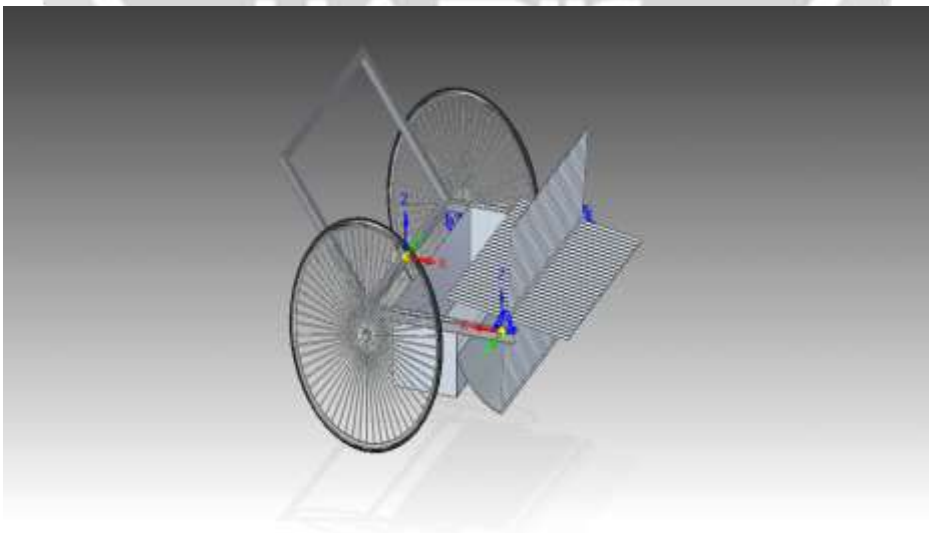
This remaining system grants creation to the new projects "MANUALLY OPERATED ENERGY SAVING FLOOR CLEANER".

2. STRUCTURE

Our whole project will be set on the structure only. This is the main part of the project A machine structure is a fixed constructed object which function as part of some mechanized process or which performs mechanized processes independently. The various types of machine structures may differ vastly from each other in appearance. These do not include structures built to shelter or enclose machinery; the machinery must be inextricably linked to the structure's form. The structure part is made up of mild steel.

3. DESIGN

Based on literature review recently floor cleaner machine are semi-automated, automated and robotics in every major platforms like industries, railway station, airport, municipal-corporation, etc. Hence sometimes wearing is damage the machine component. It's component very costly. In rainy season robotics floor cleaner sensor are damage and crash, then we have bought new this sensor. If sensor price is higher in market. In this we use electrical power and sometime cut the electrical power when stoppage the cleaning work. Based on this difficulties and literature review we create the new project is "MANUALLY OPERATED ENERGY SAVING FLOOR CLEANER". In Energy Saving Floor Cleaner design frame is developed based on literature review because of its low in weighted.



4. CONCLUSIONS

Manually Operated Energy Saving Floor Cleaner removing the problems of sensors and requirement of energy. This type of floor cleaning machine has higher amount of dust storage and water storage for cleaning purpose. This machine is clean the smooth and rough both surfaces. The unskilled worker also used this type of floor cleaner. The manufacturing time as well as manufacturing cost of the machine is low. Our project is based on very simple chain-sprocket drive mechanisum so any users can easily operated the machine.

5. ACKNOWLEDGEMENT

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6. REFERENCES

[1] Lius, Wang Chulun, a technical analysis of autonomous Floor cleaning robots based on us granted patents, European international journal of science and technology.

[2] M. Ranjit Kumar, M.Tech.student, mechanical engineering, Nagarjuna College of Engineering and Technology, Bangalore, India. (International Journal Of Engineering Research & Technology).

[3] GOOGLE SCHOLAR (http://scholar.google.co.in)