Enhancement in street sweeper machine

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Abstract: **In this project to achieve the aim of road cleaning and also cleaning below the vehicles that are parked roadside such as cars and trucks, we are doing some modifications. We are doing some modifications in the present sweeping machine. Attaching some mechanism on the sweeping machine which will be able to clean the wastes below the vehicles. We take the help of our guide and the senior faculty.**

I. INTRODUCTION

Keeping debris off the street and out of the gutters prevents the debris from entering and plugging the storm drainage system which can add to the cost the city faces for cleaning drainage lines. There are four budgeted full-time team members in the street sweeping plan. The team is responsible for the daily maintenance and seeing that service is done on the equipment. The sweeping team is responsible for sweeping over 284 miles, or 552 curb miles (a curb mile is from the centerline to the edge of roadway).

Street sweeping has seasonal demands. A maintenance schedule was developed for sweeping from a list of priorities. The analysis of street sweeping contained in this plan is based on the most cost effective and efficient delivery of service. There are other factors which the city considers in the street sweeping area. The city first considers the level of service which would be acceptable (seasonal only, year-round sweeping, whether to sweep or not sweep residential streets, etc.) There are also environmental issues which the city must consider.

II. Problem Statement

Parked car interference can have a significant negative effect on the ability of street sweepers to pick up accumulated particulate material. Since it is reasonable to assume that all street dirt accumulation essentially occurs within the width of a parked car, access to the curb is denied for the entire length of the parked cars along with the additional distance it takes for the sweeper to manoeuvre around parked cars.

III. Literature review

Parked car interference can have a significant negative effect on the ability of street sweepers to pick up accumulated particulate material. Since it is reasonable to assume that all street dirt accumulation essentially occurs within the width of a parked car, access to the curb is denied for the entire length of the parked cars along with the additional distance it takes for the sweeper to maneuver around parked cars. The most skilled sweeper operators can minimize this additional interference to a distance of approximately the length of a single car on both sides of one or more parked cars. So good program minimizes parked car interference by sweeping at night in commercial or industrial areas and during the day for residential areas. It also uses and enforces residential parking restrictions where they are warranted.

IV. COMPONENTS OF MACHINE

- Vertical arm
- Horizontal arm
- Two 12v DC motor

- Roller brush
- Power screw

ASSEMBLY OF COMPONENTS

V. WORKING OFMECHANISM

- Firstly, with the help of vertical mechanism i.e. rack and pinion setup coming down to the road surface.
- Then horizontal mechanism i.e. power screw and nut the roller brush pushes below the park vehicle.
- Roller brush is rotated with help of 12v dc motor.
- And hence we clean under the parked vehicle.

VI. Conclusion

- Clean the space that is below the car**.**
- Clean the street independent with parked vehicle.

VII. ACKNOWLEDGEMENT

I sincerely appreciate Dr. Manoj Duse for accepting our team for giving the opportunity to work on this topic. I am grateful for his support and guidance that have help us to expand our horizons of thought and expression. He was very helpful in finding solution to several problems we had during the dissertation work. This project report cannot be considered complete without mention of our Principle Sir Dr. PramodPatil and HOD Dr.K.K.Dhande. They have always been supportive and helpful throughout the degree course of our bachelor of Mechanical engineering.

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