

Design and manufacturing of Automobile testing track sweeping machine

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Abstract

The paper is all about designing and manufacturing of environmental friendly road sweeping tricycle machine for the purpose of cleaning the roads and automobile testing tracks of all the automotive industries. I have designed a tricycle having two cylindrical brushes mounted on the hollow shaft through the rear axle with the help of two linkages fabricated on the casing of bearings of the rear axle and connected to the brush shaft. As the driver drive the tricycle the brushes will start rotating due to the centrifugal force and provide five times greater speed to the brush than the pedal, the dust will automatically get collected into the container. There will be no harmful effects on environment due to pollution free sweeping operation. By using this mechanism, it will lead to reduction in human efforts, workforce and time required for the cleaning of different types of roads.

Keywords- Tricycle, Centrifugal brushes, Container, Multiple sprockets, Design and Manufacturing, Modelling and Simulation.