

# Manually Operated Eco-Friendly Road Cleaning Machine

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**Abstract:** *A manually operated eco-friendly road cleaning machine designed to address the challenge of urban road cleanliness while minimizing environmental impact. The machine incorporates innovative features such as a human-powered propulsion system and sustainable materials, making it an environmentally conscious alternative to traditional road cleaning equipment. Through a combination of mechanical and manual processes, the machine efficiently collects debris and waste from road surfaces, contributing to cleaner and safer urban environments. This abstract highlights the key design principles, operational features, and environmental benefits of the proposed road cleaning machine, showcasing its potential for enhancing sustainability in urban maintenance practices.*

**Keywords:** Enhancing safety and convenience

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