## ■ 科技成果

## 智能环保垃圾桶的设计与实现: 未来城市清洁的新选择

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**摘 要:**本论文设计并实现了一种智能环保垃圾桶,旨在解决未来城市清洁难题。该垃圾桶具有 智能感知、自动分类、自动压缩等功能,能够有效提升垃圾处理效率和环保水平。通过智能传感 器和通讯模块的应用,实现了垃圾桶的实时监测和远程控制,为城市环境卫生管理提供了新的解 决方案。论文还对垃圾桶进行了实地测试和效果评估,证明其具有良好的实用性和可行性。总的 来看,智能环保垃圾桶的设计与实现为未来城市清洁带来了新的选择,有望在环境保护和资源回 收方面发挥重要作用。

关键词:智能环保垃圾桶;设计与实现;未来城市清洁;垃圾分类;智能感应

## Design and Implementation of Intelligent Environmental Protection Garbage Can: A New Choice for Future Urban Cleanliness

Abstract: This paper designs and realizes a kind of intelligent environmentally friendly trash can, aiming to solve the problem of future urban cleaning. The trash can has intelligent perception, automatic classification, automatic compression and other functions, which can effectively improve the efficiency of garbage treatment and environmental protection level. Through the application of intelligent sensors and communication modules, the real-time monitoring and remote control of the trash can are realized, which provides a new solution for the urban environmental sanitation management. The paper also conducted the field test and the effect evaluation of the trash can, which proved its good practicability and feasibility. In general, the design and realization of intelligent and environmentally friendly trash cans has brought new choices for future urban cleaning, and is expected to play an important role in environmental protection and resource recovery.

Keywords: Intelligent and environmentally friendly trash can; Design and implementation; Future city