
Mobile Robot Recycler: A Partnership Model for Recycling Awareness and Sustainable Development in Schools

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Abstract

Sustainability in education has become a pressing necessity, prompting innovative approaches to integrate environmental awareness into learning. This paper highlights the "Mobile Robot Recycler" competition, focused on collecting and recycling soft drink cans. The event aimed to promote Sustainable Development Goal 12: Responsible Consumption and Production. Through collaborative efforts between PSIS roboteam and Sekolah SK Pt 6, this event fostered environmental consciousness and problem-solving skills among students. The competition involved utilizing recycled cans as materials for robotics challenges, emphasizing the practical application of recycling concepts. This study evaluates the outcomes of this initiative, highlighting its impact on student learning, engagement, and awareness of sustainability practices. The findings underscore the importance of such initiatives in driving youth engagement towards environmental stewardship, contributing to a more sustainable future.

Keywords : *Sustainability in Education, Recycling Awareness, Robotics in Learning, Hands-on STEM Activities, Environmental Responsibility*
