



**DESIGN AND DEVELOPMENT OF SINGLE WASTE SEGREGATION
USING ARDIUNO**

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ABSTRACT

This thesis presents an Single Waste Segregation system that integrates hardware and software components to improve waste sorting efficiency. The study begins with a review of current waste segregation practices and identifies common problems such as improper sorting and manual handling. An automated solution is proposed to address these issues. The design phase focuses on optimizing the hardware structure, component layout, circuit schematic, and system operation to ensure proper functionality and reliability. After development, the system undergoes thorough testing and evaluation to assess its accuracy, consistency, efficiency, and overall effectiveness.

Keywords: *Waste, Arduino, waste segregation*

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