ABSTRACT

Waste is one of the issues that negatively impacts the environment and society. Recycling waste management has become an increasingly urgent global challenge. In the waste processing process, the detection and sorting system is still carried out manually, requiring significant time and high costs. The problem addressed in this Final Project is an intelligent system for sorting recyclable waste based on object classification and utilizing a robotic arm. The method used in this research involves object classification and the use of a robotic arm as a waste-picking tool. The hardware and software used in this study include three servos, an Arduino Uno, a smartphone, a robotic arm, and a conveyor, while the software utilized includes Visual Studio Code and Arduino IDE. This research produces an intelligent system for sorting recyclable waste based on object classification and employing a robotic arm.

Keyword : Intelligent Systems, Recycling garbage, Conveyors.