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## **Conveyor Belt Based Product Counting System**

Prof. K. M. Pimple, Vaibhavi Samatkar, Jayshri Raut, Sanchit Vinchurkar Vrushabh Khandare, Sarthak Mahore

Dr. Rajendra Gode Institute of Technology and Research, Amravati

Abstract: This paper outlines the design and development of an innovative conveyor belt- based product counting machine capable of accurately detecting and sorting products in real- time, leveraging advanced sensors techniques to ensure precise counting and categorization as products move along the conveyor belt. By streamlining product counting and sorting processes, this machine is poised to significantly enhance efficiency and productivity in a range of industries, including manufacturing, packaging, and logistics, with experimental results confirming the system's accuracy and reliability, thereby underscoring its potential as a valuable solution for industrial applications where precision and speed are paramount.

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