

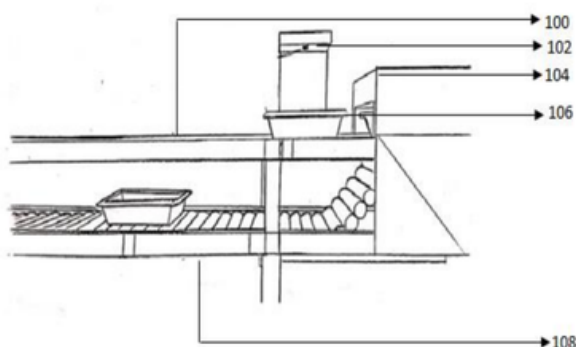
SYSTEM AND METHOD FOR AUTOMATIC EMPTY TRAY RECOGNITION

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

An Automatic Tray Recognition System (ATRS) that uses a Dense Neural Network (DenseNet) to accurately identify empty security trays in airport baggage screening systems. The technology overcomes challenges caused by non-uniform illumination and specular reflections, enabling reliable detection of empty trays for automated recirculation. By eliminating manual tray handling, the system improves operational efficiency, reduces security personnel workload, minimizes delays, and enhances the overall passenger screening process.

Block Diagram



Technical Applications

Multi-domain Applicability: Suitable not only for airports, but also for railway stations, metro stations, ports, shopping malls, supermarkets, industrial manufacturing lines, food processing plants, warehouses, and logistics conveyor systems.

Salient Features

- ✓ DenseNet Deep Learning Architecture
- ✓ Environment-Independent Robustness
- ✓ Seamless system integration & cost-reduction

Glimpse of the Technology



REFERENCE NUMBER

iTNT-TECH-0175



TECHNOLOGY SECTOR

Enterprise Applications



IP STATUS

Patent Granted



APPLICATION NUMBER

202241070058



TECHNOLOGY READINESS LEVEL

TRL - 3

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