Technology atron

HW Design

Embodying AI and Robots operate in real world

HW design and production for each component

Deriving solutions for actual field installation

AI

Deep learning-based waste location detection and classification

Plastic composition analysis

Object tracking on conveyor

Statistical waste data analysis

Robot Control

Adaptive robot control customized to waste shape and situation

Development of robot motion to maximize waste processing volume

Conveyor and facility control

3nity™

Technology for seamless integration of HW design, AI and Robot Control

More on Website

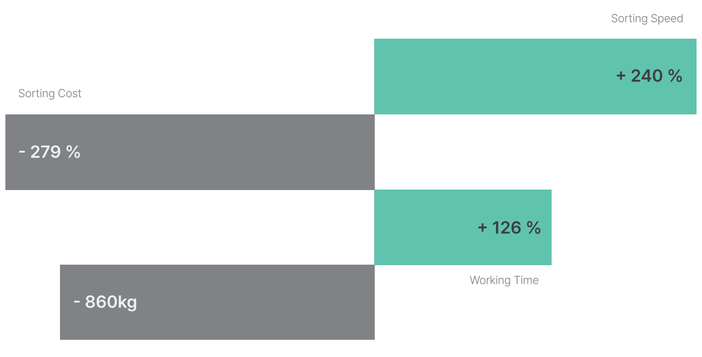
wai-kor™

AI algorithm reflecting the characteristics of local area

More on Website

Expectation atron

Compared to hand-based sortation



About aetech

Aetech has provided smart solutions for waste management since 2020. Our ultimate goal is to come up with a sustainable society. To this end, we aim to smarten the domestic and international resource circulation value chains across all waste areas, including household, construction, marine and industrial sites.

Our Smart Solutions for Waste Management

atron

airo-mrf

Awards & Certifications

47	WIPO*	Edison
Total	Global Award 2024 * World Intellectual Property Organization	Awards Winner 2025 Innovation in Production Process

Patents

15	16	19
Registration (ROK)	Application (ROK)	Application (Overseas)

Business Partners

Ministry of SMEs and Startups, ROK
Ministry of Science and ICT, ROK
Incheon Metropolitan City
Daegu Metropolitan City
Incheon Environmental Corporation
Korea Environmental Industry & Technology Institute
Korea Transport Institute
Shinhan Financial Holding Company
Korea SMEs Startups Agency
Incheon Techno Park
Incheon University
Sejong University
Korea Institute of Startup (KIS)
Daegu Techno Park
Korea Transport Institute
Korea Technology Finance Corporation
Korea Institute of Startup & Entrepreneurship Development
KDB Industrial Bank
ELPS Patent Law Office
Korea Transport Institute
Korea Agricultural Technology Promotion Agency
Korea Data Agency
Korea Institute for Robot Industry Advancement
Korea Social Investment Foundation
Korea Intellectual Property Strategy Agency
Korea Environment Corporation
Korea Environmental Industry Technology Institute
Korea Environment Industry Association, etc.

aetech

Leading the Future of Circularity

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atron

More on Website

The New Era of Sortation

Over the Limits of Hand-based Sortation atron

Atron is an AI-based resource sorting robot. It rises above the weaknesses of human resources, such as low sorting accuracy, speed and short available working time.

Overwhelming Performance atron

99.3%
Accuracy

4.3 Mil ↑
Collected Data

24 Locations
Collection Sites, The Largest Scale in ROK

up to 96 ea
Capacity / per Min

Target Waste(9 Types)
PET, PP, PE, PS, Other, Glass, Can, Paper, Plastic Film

Introduction Status atron

Installation Site: Cheongdo County

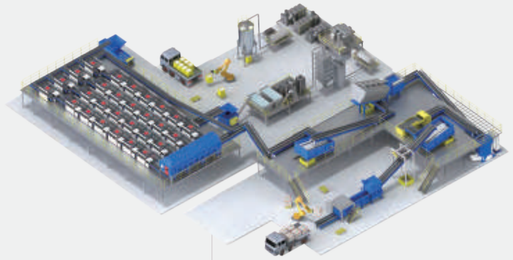
Completed

Seoul (Public, 2 units)
Gyeonggi-do (Private, 3 units)
Gyeonggi-do (Public, 2 units)
Incheon City (Private, 3 units)
Incheon City (Public, 2 units)
Ulsan City (Private, 4 units)
Cheongdo County (Public, 3 units)
Namwon City (Public, 1 unit)

airo-mrf

The World's First AI-based Unmanned RMRF

More on Website



Flagship Center, slated to open in 2025
(Specialized complex for resource circulation in Seo-gu, Incheon)

Everything Is Unmanned airo-mrf

Airo-MRF is an AI robot-based unmanned resource sorting center operated by robots including over 30 atrons, and aims to overcome the limitations of existing MRFs with AI technology and achieve a 2x increase in resource circulation rate.

① Uncompressing the waste moved by the up-and-down robot and carrying out work by magnetic, ballistic and wind separator.

② Using AI screening robot Atron and circular conveyor belt, only objects are classified.

③ Transparent PET classified through grinding, washing and drying is produced into high-purity flakes.

Expectation airo-mrf

Compared to hand-based sortation with 30 atrons

Waste Disposal Capacity

40 t / day

- 25t / day

Carbon Footprint Reduction

70% of the Recycling Rate

2X of Resource Circulation