

ZENROBOTICS

STANDALONE ROBOT SORTING STATION

– POWERED BY HEAVY PICKER

KEY BENEFITS OF SMART AUTOMATION

Multiple high-quality recyclables on the spot

Minimal pre-processing of waste

Trainable and adjustable sorting results

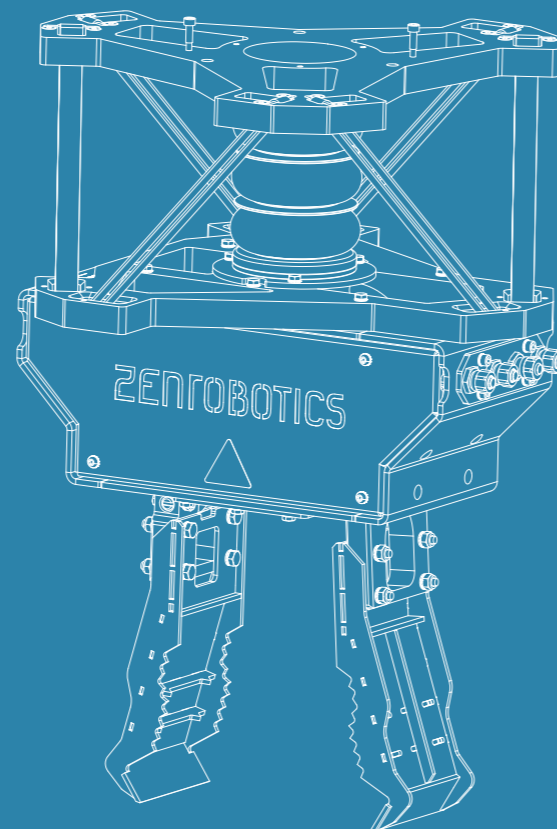
Online waste composition analysis

Unmanned operating hours up to 24/7

Independent from other operations

Low operation cost

Fast and easy installation



SORTING TASKS

CONSTRUCTION & DEMOLITION

- Wood by grade (A/B/C/D-wood)
- Inert mixed and by type: bricks, concrete, stones, etc.
- Rigid plastics mixed or by polymer
- Metals

COMMERCIAL & INDUSTRIAL

- Rigid plastics mixed or by type
- OCC
- Wood mixed or by type
- Metals

RIGID PLASTICS

- Plastics from mixed waste
- Plastics by polymer: PP, PE, PVC, PET, etc.
- Plastics by shape, size and/or color

INERT

- Stones
- Bricks
- Asphalt
- Gypsum
- Concrete, etc.

SCRAP METALS

- Metals by shape/color, brass, aluminum, zinc, copper, stainless steel, etc.
- Metals by type: iron scrap, copper wires, "meatballs"
- Contaminants

TECHNICAL SPECS FOR ROBOTIC SORTING LINE

Robot arms	1, 2 or 3	Maximum object weight	30 kg, 66 lb
Sensor units	1	Maximum object size	L 1500mm, W 500mm
Gripper type	Mechanical Gripper		L 60", W 20"
Maximum speed per arm	2300 picks/h*	No. of recognized fractions	Unlimited
Sorting belt speed	0,1–0,6 m/s, 20–118fpm	Installed power (1 robot)	10 kW, 13.4 hp
Unit length	6125mm x 13725mm, 20' 1" x 45'	Air consumption	120 l/min/gripper at 6 bar
Unit weight	4700kg – 11300kg		4.2 cfm at 87 pis
	10400lb – 25000 lb	Noise level	<80 dB(A)
Working area (1 robot)	2700mm x 2000mm, 8' 10"–6'	Technical specification subject to change. * Actual picking speed depends on feed	
Discharge chutes	Up to 6 / arm		

ZR ZenRobotics Ltd.
Vilhonkatu 5 A 00100
Helsinki, Finland

sales@zenrobotics.com
+358 50 4363 803

info@zenrobotics.com
+358 45 2596 161



KEY PERFORMANCE FIGURES

Up to **6900** picks per hour
Up to **99%** purity
Max. object weight **30kg**
Up to **24 / 7** operations

ROBOTIZED VS. MANUAL SORTING:

In 1 shift operation	3 – 5 human years
In 2 shift operation	6 – 10 human years
In 3 shift operation	9 – 15 human years

PAYBACK TIME:

Approx. **2–3 years** when investment and operating costs compared to manual labor, incineration or disposal

