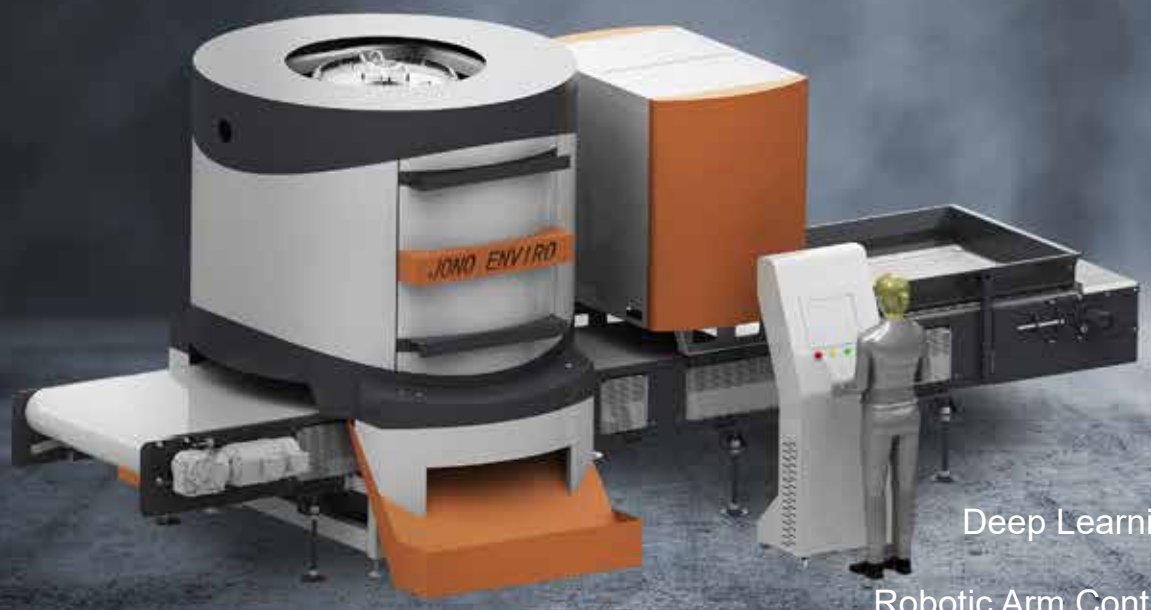
JONO®

6 KEY TECHNOLOGIES

ARTIFICIAL INTELLIGENCE (AI) SORTING



Deep Learning

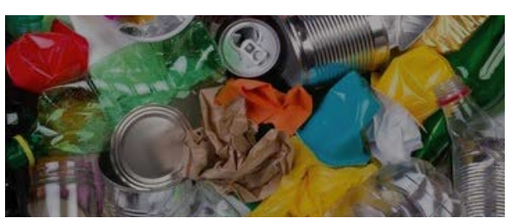
Robotic Arm Control

Big Data Training

Industrial Cloud Platform

Light Intelligent Sorting Robot

The light intelligent sorting robot uses artificial intelligence technology and deep learning to perform high-level abstraction of data using multiple processing layers (neural networks) that include complex structures or consist of multiple non-linear transformations. Establishing a special frame model according to the using characteristics. Through continuous sample collection, the target can be accurately identified.



Main Applications

Plastic film, PET bottle, paperboard, pop-top can, foam board, etc. in the solid waste recycling line.

WORKING PRINCIPLE

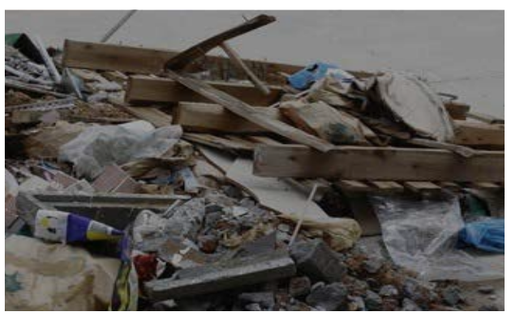
When discharged onto the belt conveyor of the AI sorter, the material first goes through a camera box.By this device,the image of the material is captured by the camera. Meantime, the AI system can distinguish the material types by its big data and image analysis ability. Knowing the speed of the belt, AI system also can calculate the location of the material afterwards as long as it's on the belt conveyor. Then the robotic arm is able to choose the shortest route to pick up the material and drop off at the right discharging area.

FEATURES

- Simplify the high-end technology. One button to operate.
- It can collect the big data, analyse the data and optimize the data.
- Thanks to the self-learning. The longer time it works, the smarter it is.
- Stable operation for 7*24h
- As a standard working unit, it can easily integrated into a system.

Heavy Intelligent Sorting Robot

Heavy intelligent sorting robot is the second product launched by JONO based on artificial intelligence technology.It is mainly used in sorting heavy and large-sized waste object, such as large pieces of plastic, wood and other combustibles, as well as paint buckets, hollow bricks etc.



Main Applications

Sorting of heavy and large-sized waste object, such as large pieces of plastic, wood and other combustibles, as well as paint buckets, hollow bricks etc.

WORKING PRINCIPLE

When equipment detects the passage of waste on the conveyor belt, the visual system scan the waste flow, identify the surface features of the waste, and through in-depth learning, analyzes and identifies the material, contour and grabbing point of the object. Meanwhile, the priority of sorting will be determined according to the size, value and position of the object. That will instruct the robot to perform quick online grabbing of the waste. Finally, the object will be placed in the specified hopper.

FEATURES

- This robot can identify various items through visual system and deep learning algorithm. It has an accuracy rate of over 90% and can identify more than 20 kinds of recyclable waste such as stones, concrete, wood, plastic, cardboard, foam, fabric etc.
- The equipment works stably with high efficiency. The highest sorting speed is 4000 times/hour. It can work continuously for 24 hours*7 days.
- According to the needs of customers, some parts can be added in the robot for auxiliary judgment such as the near-infrared camera, 3D line laser camera etc.
- It can use the waste treatment cloud platform to monitor the operation status of the equipment and the recycling plant in real time, improving the value of waste sorting process and results.
- It builds the first waste sorting big data center in China, which has accumulated hundreds of thousands of waste classification pictures, and the data-driven waste identification intelligent is in first-class in the industry.

JONO®

GREEN TECHNOLOGY FOR EVERY FAMILY

SUZHOU JONO ENVIRONMENTAL ENGINEERING CO., LTD.

yz@jonogroup.cn

+86 15895500271

https://jonochina.com/

+86 0512-86668089