



Metaspectral

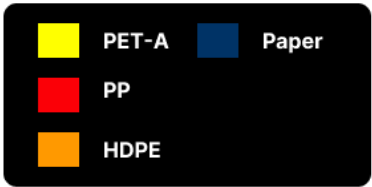
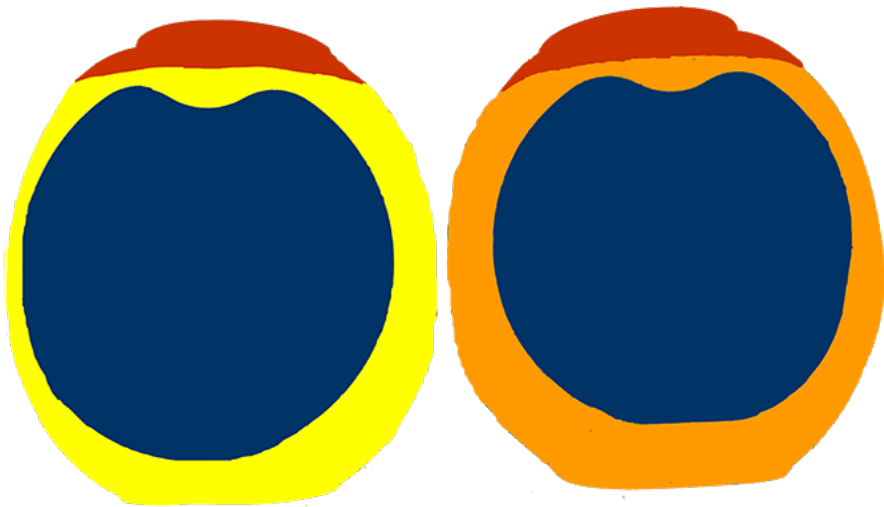
Scientific Automated Sorting Powered by AI

Manufactured materials are getting increasingly complex, as producers introduce new polymers, blends, pigments, oxygen barriers, and multilayered materials. Alternative sorting solutions on the market today determine an object’s material type by its shape, which is prone to error. Further, these solutions are not capable of differentiating between different formulations of the same polymer, such as between different grades of the same material, different polymer blends, or different types of multilayered packaging.

Metaspectral scientifically determines the various materials present on an object thanks to advanced spectral analysis and artificial intelligence. Deep neural networks not only identify materials by polymer type, but also differentiate between different grades of the same polymer, different polymer blends, and different multilayered material.



Left: Objects as seen by conventional sorters



Right: Objects as seen by Metaspectral’s sorting system

PRIMARY FEATURES



Sort complex polymers

Metaspectral’s solution not only sorts objects by polymer, but also identifies the various materials present in or on an object. This capability gives Metaspectral the ability to sort objects with unprecedented accuracy, with the flexibility of adapting to any sorting line or function. The solution also differentiates between different grades of polymer (e.g. PA6 vs. PA66), different polymer blends, multilayered packaging, or thin film.



Sort black materials

Black material is notoriously hard to sort, due to its property to absorb light. Thanks to its high spectral resolution, Metaspectral is capable of discerning characteristics that indicate the type of the underlying black material with high accuracy.

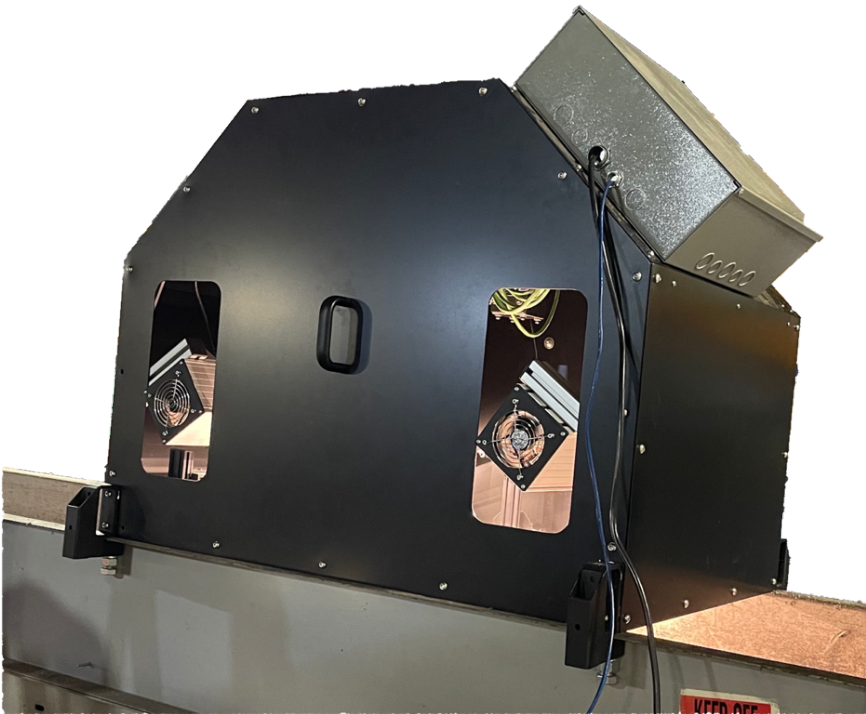
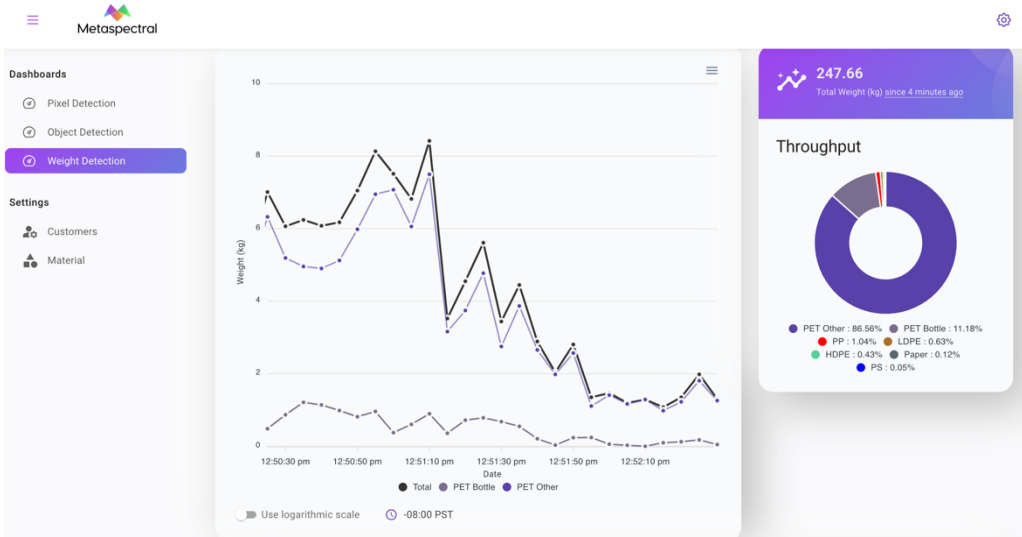


Real-time Monitoring

Audit incoming bales, sorting performance, or product output from anywhere in the world. Metaspectral’s business intelligence dashboard notifies relevant personnel upon critical events (e.g. PVC detected)

TECHNICAL SPECIFICATIONS

FEATURES	DESCRIPTION
Materials	ABS, ASA , HDPE, LDPE, PA6, PA66, PBT, PC , PE, PET , PP, PS, PVC, TEO, TMMA, TPO, Amasorb™ , and more
Material Types	Opaque or transparent objects, thin film, polymer blends, black plastics
Detection Accuracy	> 91%
Latency	< 4 ms
Integration support	Integrates with most downstream sorters, air jets, or mechanical pickers



Contact sales@metaspectral.com or visit <https://metaspectral.com>.