



PLASTIC SORTING

WITH MOBILE SPECTROSCOPY SOLUTIONS

Higher accuracy and quality in Plastic Sorting

Quality

Accurate sorting leads to higher quality of recycled material and prices.

Mobile

All common plastics can be easily distinguished by a pocket-size and portable device.

Ready-to-use

The device can be used right away without a cumbersome installation or training.

Award-winning and patented technology

Fast

The identified plastics are shown within seconds on the mobile or web app (iPhone/Android).

Individual

Customized solution based on individual chemometrical data models.

Affordable

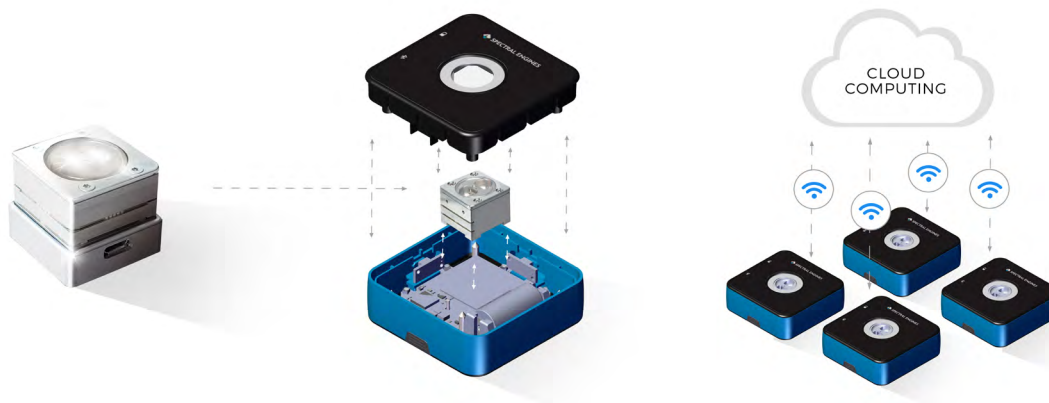
Laboratory accuracy level performance at a fraction of the costs.

With the NIRONE solution, companies can correctly assign all common plastics and thus significantly increase the recycled amounts and ensure their quality. NIR spectroscopy can also be used as an OEM product in your own system for automated sorting.

Spectroscopy as smart material sensing technology

Near-infrared spectroscopy is used to study the unique features of a material by shining a specific light on them. The materials reflect a unique pattern, like a fingerprint. Spectroscopy makes these fingerprints visible. It allows the identification, differentiation, condition monitoring and quality assurance of substances.

Infrared spectrometers are already in widespread use, thanks to their great accuracy and flexibility. Our solution combines a pocket-sized near-infrared sensor with connectivity for mobile apps and cloud-based reference libraries with machine learning algorithms.



Material analysis in a blink of the eye

1. After placing the measurement object on the NIRONE scanner, the sample is illuminated and the spectrum recorded.
2. The mathematical models analyze the spectrum and identify the material.
3. The result is immediately displayed in the connected app, and additional online information can be accessed.

About Spectral Engines

We are an international IT company specializing in MEMS-based near-infrared spectral measurements - an innovative technology used, for example, for the rapid identification of pharmaceuticals and other branded products.

Spectral Engines is part of the Nynomic Group and combines the best of both worlds: the dynamics of a young company with the security of an established technology group in the background.

About the NIRONE Solution

Weight	Battery	Sensor Ranges	Storage
157g 0.35 lbs	10 hours	5 different wavelengths	Data stored in a safe cloud environment
Size	Interfaces	Models	Transfer
80 x 80 x 28 mm 3.15 x 3.15 x 1.10 inch	USB & Bluetooth	In-house developed	Data transfer end-to-end encrypted

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