SPECTRAL ENGINES
MEMBER OF THE NYNOMIC GROUP

PLASTIC SORTING

WITH NIRONE MOBILE NEAR-INFRARED 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

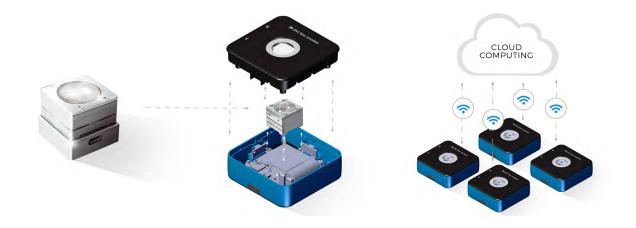Customized solution based on individual chemometrical data models.

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

Each material has a unique fingerprint that identifies it. Spectroscopy makes those fingerprints visible. It allows the identification, differentiation, condition monitoring and quality assurance of substances.

Our solution combines a pocket-sized Near-Infrared sensor with connectivity for mobile apps and cloud-based reference libraries with machine learning algorithms. This extremely powerful tool enables you to create your own unique material scanner.

Material analysis in a blink of the eye

1. After placing the measurement object on the NIRONE sensor, 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 app, and additional online information can be accessed.

About Spectral Engines

Spectral Engines, part of the Nynomic Group, is an international company specializing in the development and manufacture of electronics and sensor systems for spectral measurement. In close cooperation with our customers, we develop and manufacture high-end spectroscopy systems and components for a wide range of applications. The company is located in Steinbach in the immediate vicinity of Frankfurt a.M. and in Helsinki.

About the NIRONE Solution

Weight	Battery	Sensor Ranges	Storage
157g | 0.35 lbs	10 hours	5 different wavelenghts	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

Watch NIRONE Plastic Sorting video:
https://youtu.be/ICKA8L0Tb7Q

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