



# TEXTILE SORTING

WITH NIRONE MOBILE NEAR-INFRARED SPECTROSCOPY SOLUTIONS

## Higher accuracy and quality in Textile Sorting

### Quality

An increased purity of fibers leads to a higher quality and amount of recycled textiles.

### Mobile

Fabric compositions can be easily measured 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 fibers 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 materials in the sorting process and thus significantly increase the recycling ability. Plus, it is possible for brand manufacturers to authenticate their products at every point in their supply chain.

## 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 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 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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Watch NIRONE Textile Sorting video:  
<https://youtu.be/gd2267ZFc3M>