

# miniFly

LABORATORY



## Elemental analysis in a fraction of second!

Discover the power of Laser-Induced Breakdown Spectroscopy with our cutting-edge **miniFly Laboratory**.

miniFly Laboratory is a bench-top version of the miniFly series. Combining digital microscopy with powerful elemental identification capabilities, it enables you to quickly and effortlessly identify elements across the periodic table, from the lightest to the heaviest, in virtually any solid sample.

## What are the capabilities?

- Crisp, high-resolution imaging of samples with automated image sticking
- Motorised sample movement and focusing
- Multi-elemental analysis with **LOD 1-100 ppm**
- Detecting all chemical elements, including light elements, such as **H, Li, Be, ...**
- Various measurement modes:  
**Multi-spot / Line-Scan / Area-scan / Depth profiling**
- Up to **100 Hz** measurement repetition rate
- Live chemical / elemental imaging
- Automated identification of chemical elements
- *Quantitative analysis and custom material database\**
- Small table-top footprint



## Equipment

- miniFly core unit + Docking station
- Digital microscope with illumination
- 2-axes motorised stage + motorized z-axis
- Air-cooled DPSS pulsed laser
- Diode targeting laser
- Full UV-NIR range spectrometer
- Control software
- **Laser Class I** instrument
- Weight <10 kg, size < 400 × 600 × 250 mm<sup>3\*\*</sup>



## Ask for more details!

[www.lightigo.com](http://www.lightigo.com) | [info@lightigo.com](mailto:info@lightigo.com)  
Renneská třída 329/13, 639 00 Brno, Czech Republic

*\*) Included in SW release for Q1/2025*

*\*\*\*) Dependent on configuration*

# miniFly product line



**LIGHTIGO**  
LIGHT UP YOUR ANALYSIS

## Solutions for lab and industry

MiniFly is new innovative analytical platform powered by Laser-Induced Breakdown Spectroscopy.

With its compact modular design and unparalleled flexibility and adaptability, miniFly can be easily configured to:

- efficiently support your **research** in the laboratory as a desktop analyser,
- optimise **industrial processes** by a remote analysis of samples on conveyor belt,
- provide solution in special **field applications**, where other analytical instruments fall short.

## Various modules

Every product in the miniFly product line includes:

- **miniFly Core** is the fundamental module capable of a basic spot analysis by itself.
- **Additional modules**, which provide all other functions and advanced capabilities. These are tailored for a specific applications.



### Modules

#### miniFly Core

Standard or rapid (>100 Hz) laser focusing

#### Mounting adaptors

Benchtop dock station with gas purge and extraction

#### Sample stage

Manual or motorized 2-axes or rotational

#### Microscope

Digital with Plan APO objectives, dual illumination

#### Measurement mode

AreaScan, Depth profiling, Multi-spot

#### Optical modules

Nearfield analysis / Remote analysis (up to 1 m)/  
Analysis in air-tight ablation cell

#### Spectroscopic modules

Full range spectrometer or element-specific sensors

#### Communication modules

Ethernet / Profinet / ModBus / RS485



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