

# DSR-Plus

Intelligent Fingerprinting



## Next generation, portable fingerprint drug testing device

Intelligent Fingerprinting's product analyses sweat from fingerprints to screen for specific drugs and drug metabolites. Unlike traditional drug screening tests, it doesn't require saliva or urine collection, and it gives results in 10 minutes.

### Expertise

- Industrial Design
- Mechanical engineering
- System design
- System verification
- Optics
- User Interface
- Prototyping

### Domain expertise

- Sample cartridges
- PoC testing devices and testing environments
- Transfer to Manufacture
- Medical software
- Commercial insight and understanding
- Quality and regulatory



## Our client asked:

The sample reader size and weight made portability more challenging for some applications. Intelligent Fingerprinting wanted to take their portable fingerprint drug testing to the next level.

They asked Sagentia Innovation to streamline manufacturing and significantly reduce the size and weight of the unit to open new market opportunities in other areas of medical diagnostic testing.

## The project story:

We used our optics knowledge to help rethink the way sample cartridges are read. We identified a new way to read the samples which involved a camera, mirrors and filters rather than a scanning system.

By eradicating moving parts from the device, the team was able to enhance robustness, while also delivering further benefits related to size, weight, and performance.

We then focused on making the device more streamlined, efficient, and user-friendly, so it is suitable for a wider range of applications as Intelligent Fingerprinting develops into other key areas of medical diagnostics.

[www.intelligentfingerprinting.com](http://www.intelligentfingerprinting.com)

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## Results: deliverables and outcomes

- This Fingerprint drug screen system has made Fingerprint drug testing an even more attractive choice for new target audiences.
- The new DSR-Plus reader is portable, robust and its battery supports up to 8 hours' mobile operation.
- The user interface is intuitive and adheres to medical-grade quality procedures surrounding factors such as documentation and controls.
- It was a rapid product development – going from a Proof of Principle model to 50 B-Models in 8 months.
- Manufactured in the UK.
- Launched in March 2020.

**“Bringing advanced optical engineering skills to the table, Sagentia worked quickly and effectively, driving focused and high-value improvements to the device”**

Philip Hand, Executive Chairman, Intelligent Fingerprinting