

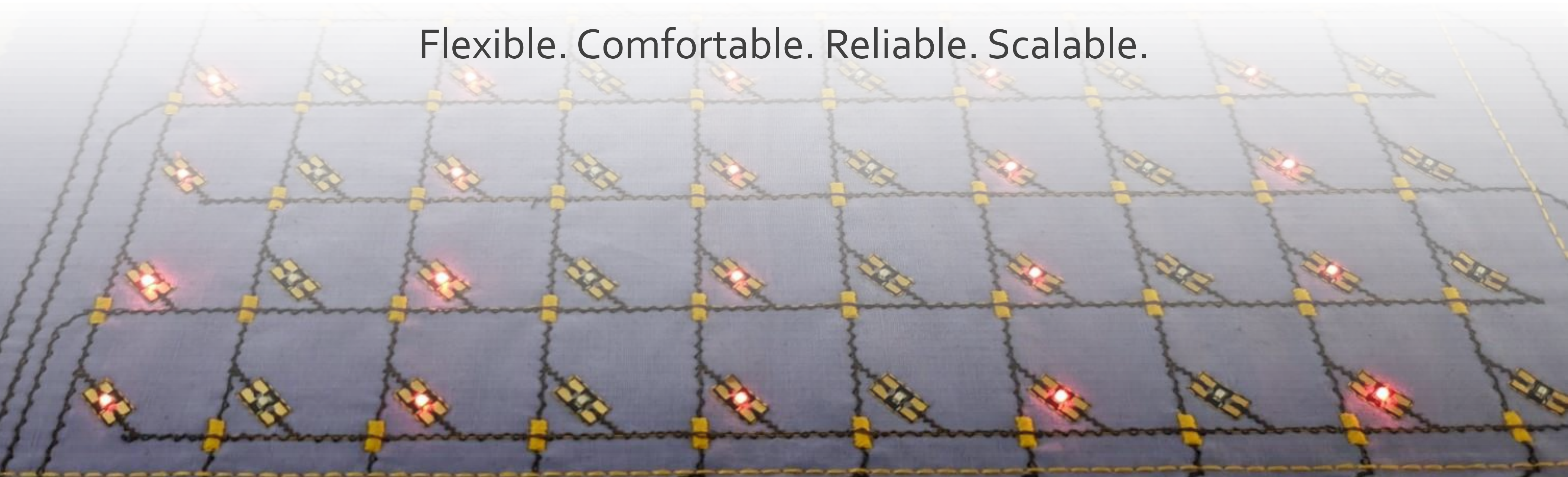


Smart Solutions
Embroidery • Electronics • Engineering



Textile-Integrated LED Arrays for (Red) Light Therapy

Flexible. Comfortable. Reliable. Scalable.



Many current solutions rely on rigid or flex PCBs, limiting flexibility, comfort, and user acceptance.

Our embroidery-based integration enables:

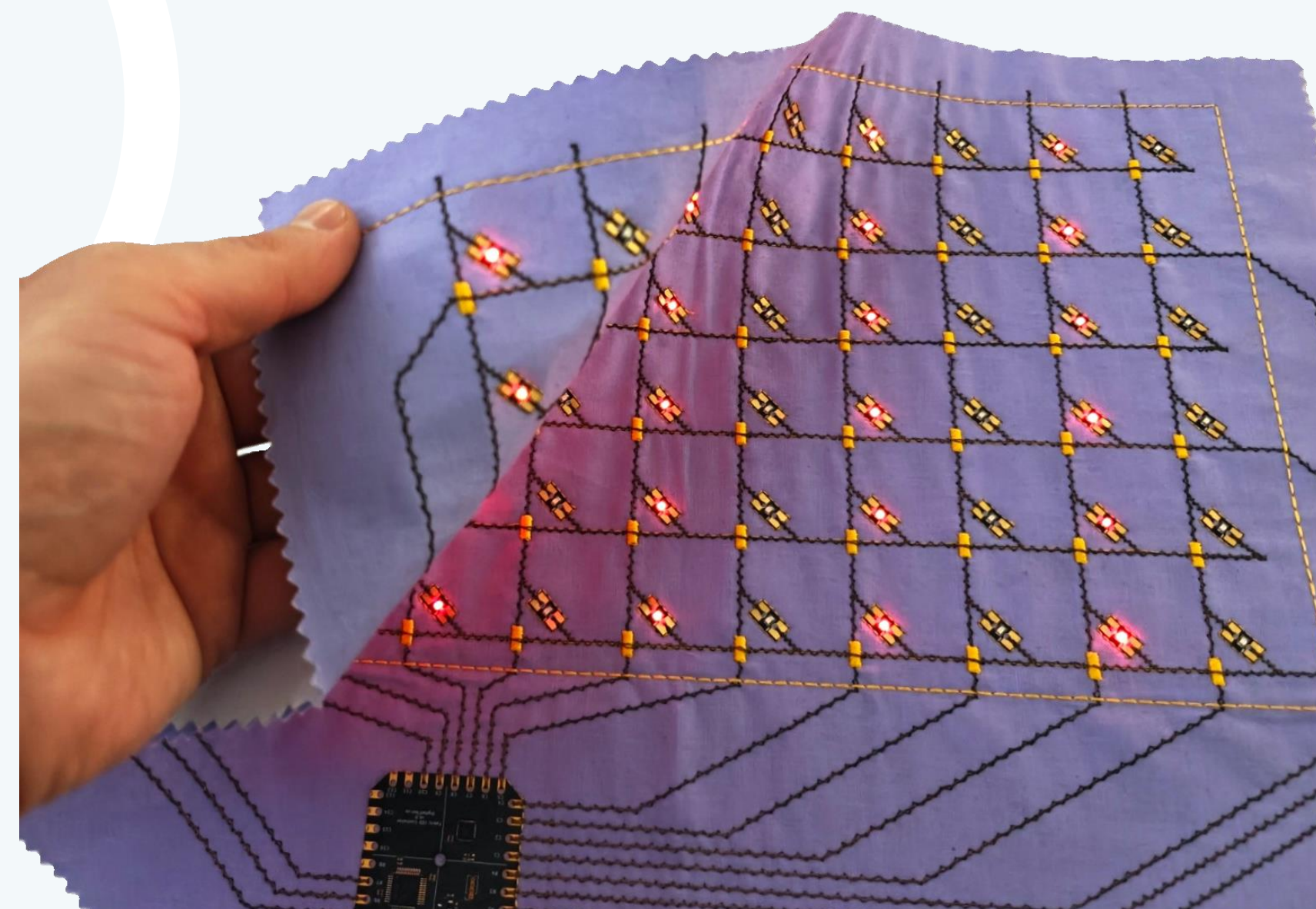
Full-textile flexibility for superior wearability and comfort

Durability, washability, and optional waterproofing

Integration in diverse textiles products such as cuffs, face masks or full-body mats



state-of-the-art
solution



textile-integrated
solution by 3E

Using a **ZSK** embroidery machine with a **Functional Sequin Device**, we integrate LED modules directly onto textiles in a single automated production step.

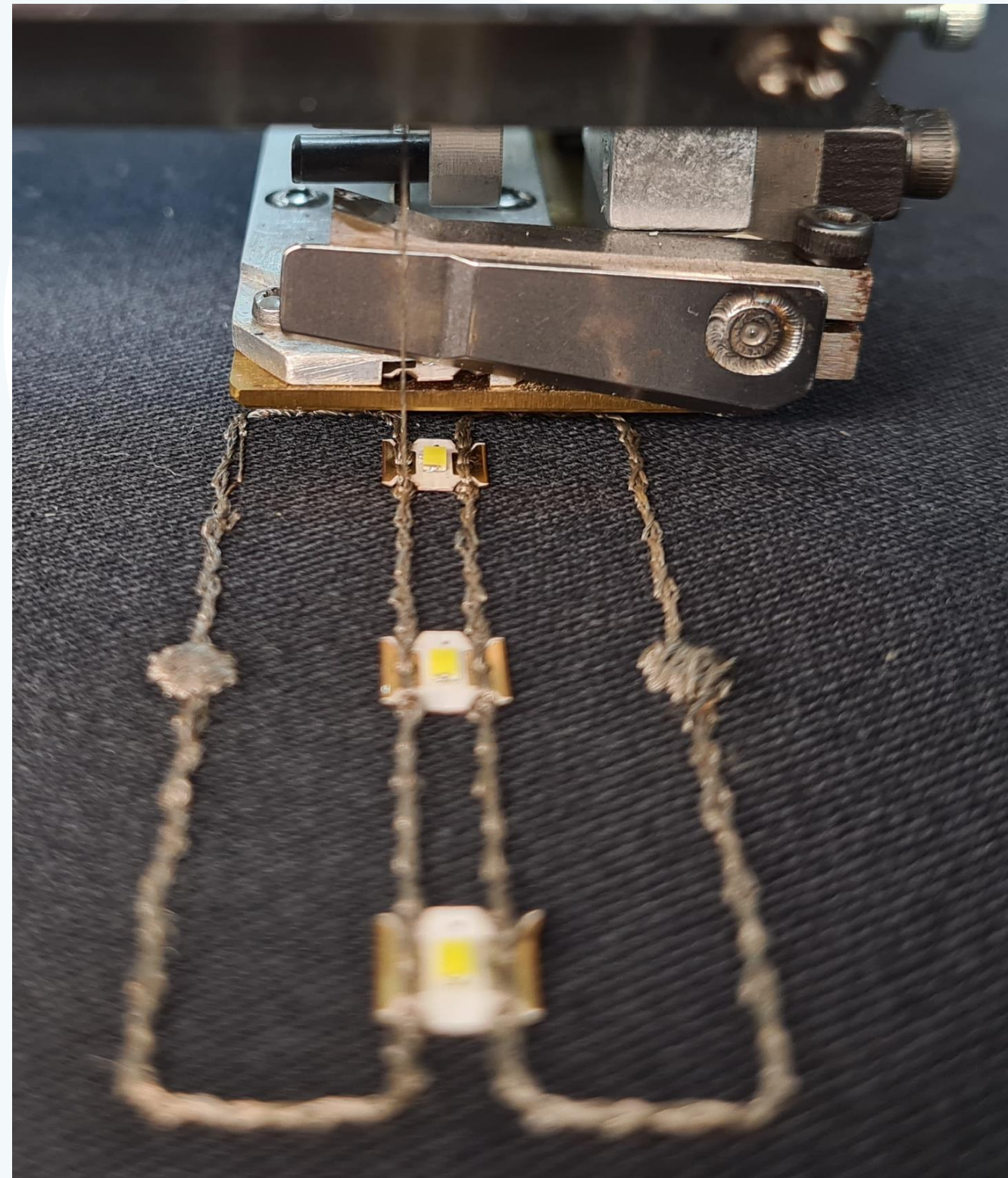
Key benefits:

**Complete textile integration
(no rigid components inside)**

**Flexibility in array geometry and
LED spacing**

**Works with different wavelengths
(red, near-infrared, blue, etc.)**

This solution is ready for scale and ideal for wearables, soft goods, and therapeutic textiles.



Your Goal:

Whether you are designing a new product or want to upgrade an existing one - we provide development support and production-ready solutions.

Our Know-How:

Product Development

Electrical, Mechanical, and
Textile Engineering

Embroidery Technology

Product Idea &
Consulting



Concept
Development



Product Design



Prototyping



Product
Development



Testing



Upscaling &
Production



Our Service:

- All-round **product development, prototyping,** and **consulting** for **Smart Textiles** and **E-Textiles**
- Customized **workshops & trainings**
 - Electrical Engineering
 - Product Development
 - E-Textiles Production
 - Embroidery Machine Operation

Interested? Let's talk about your use case.

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