

ZSK USA



SMART TEXTILES FOR INNOVATIVE COMPANIES

We explore and develop technical embroidery, to teach new developments and to further this innovating technology of additive manufacturing.

Engineering
Sampling
Support

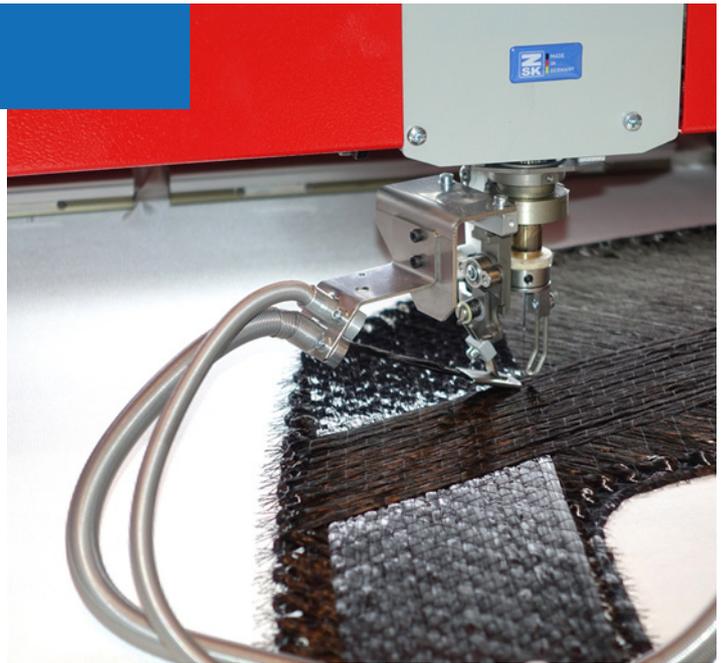
Training
Education
Research

ENGINEERING

Our textile engineering PhD researchers are available to help solve some of your toughest textiles problems and propel your project quickly from concept to production piece. With direct industry experience in composites and Smart textiles construction, as well as a good understanding of test methods, we can quickly iterate on possible solutions to technical challenges and teach those techniques to you.

Our engineering team has background in mechanical spacecraft design work, as well as flexible electronics construction, composites for medical imaging devices, and circuit board design.

Utilizing our engineering team allows our customers to quickly get setup into the technical embroidery space as well as to learn about the state of the art in textile engineering techniques.



SAMPLING



Sampling services are offered to help test different material combinations to see stitchability, or to get a rough idea of embroidery possibilities that might solve a specific technical problem. For many industries, it can be a daunting task to convert an existing product line into technical textiles. However, this innovation, and going against the grain, is often where financial incentive can be found. Sampling with us can reduce the potential risks of a new product mindset and provide you with test pieces for internal evaluations.

Sampling can include composites, fiber optics, wire placement, tube placement, smart textiles, electronics inclusions, sensor inclusions, and other material studies.

Evaluations of backing materials, tensions, and other embroidery processes for production evaluations can be performed as well.

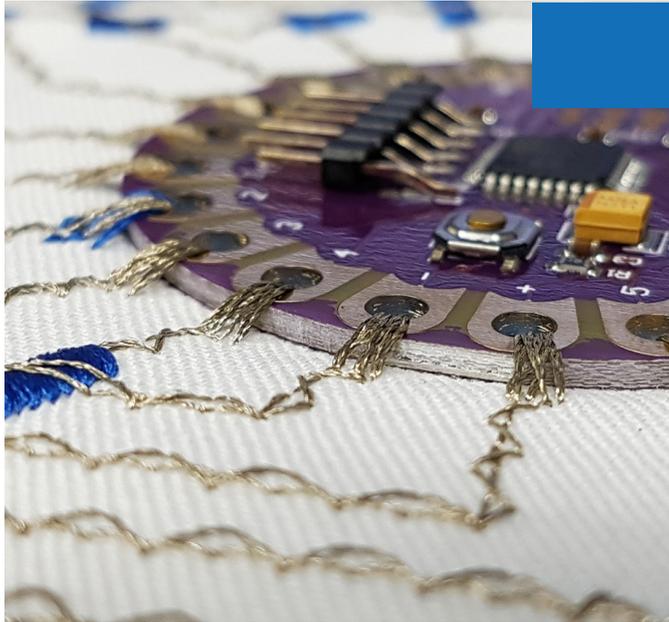
SEATTLE, WA ZSK RESEARCH AND TRAINING CENTER

The ZSK Research and Training Center was established in 2018 in Seattle, WA in order to support the growing Technical Embroidery industry in the USA.

Seattle was selected as the home of this facility due to its strong technological ties to industry. Seattle is the home of many large and small technology companies exploring flexible circuits and smart textiles as well as a robust aerospace composites industry.

The purpose of this new facility is to explore developments in technical embroidery and to teach these new developments to interested parties to further this cutting-edge field of additive manufacturing. Different sampling techniques, materials evaluation, brainstorming, and machine operation guidelines are regularly updated and taught in house.





EDUCATION

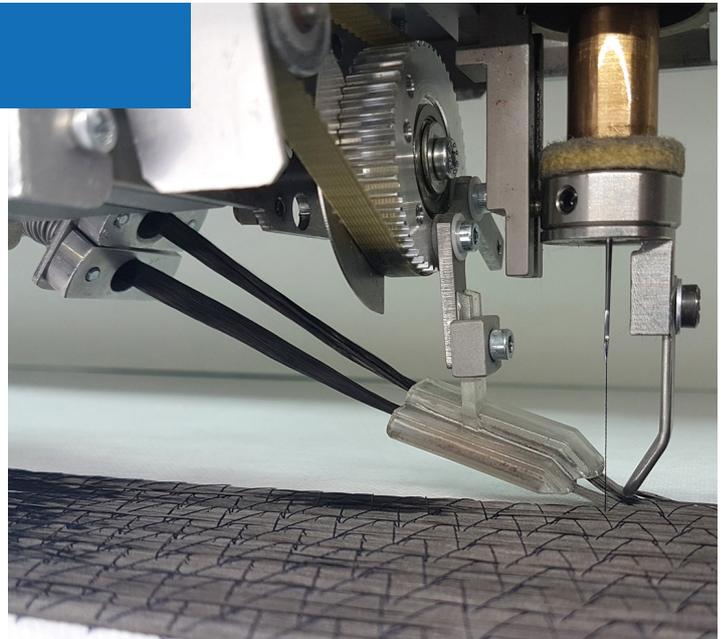
The ZSK Research and Training Center in Seattle, Washington offers customers customized trainings in technical embroidery and textile engineering concepts. Trainings are offered on a first come first served basis and can last from 1 day to 5 days depending on subject matter, complexity, and familiarity with technical embroidery. Lessons are created customized to each customer's direct educational goals and project outline. Trainings can be completed here at the facility, or alternatively at a customer's location.

Educational classes include drawing for embroidery, basic wire placement, composites construction, intermediate classes include circuit board stitching, LED sequin placement, and best practices with production scaling. Additional advanced classes and techniques are scheduled by customers for specific technical challenges and resolutions.

RESEARCH

Research is one of our core focuses. As technical embroidery is an emerging field, we emphasize exploration. We regularly attempt to find and characterize new techniques in technical embroidery to help further solve potential user questions. As we are directly affiliated with the machine producer, we can request iterations of new attachments, mechanical parts, or software changes to match research aspirations. The research we regularly perform allows us to stay abreast of the field and constantly exploring new and innovative applications for diverse industries.

Our auxiliary equipment, such as CNC's, hot presses, electronics manufacturing pick and place machines, 3D printers, oscilloscopes, circuit board fabrication station, and robotic assembly test bed allow us quickly conceptualize and iterate upon interacting research and technologies.



SUPPORT

Throughout the technical embroidery process, the ZSK Research and Training Center is available to support you. If you have questions on recently developed techniques, options, or the newest availability in machine attachments, we can gladly coach you through those possibilities. Additionally, we can provide remote and in person servicing for different machine upgrades and configurations.

We leverage our wide network of suppliers to further provide you with eclectic materials options and data. These partnerships are critical to us as they allow us to expand our potential knowledge and research offerings into connected topics such as polymer science, wire alloys, textile fabrics, electronics manufacturing, and composites processing techniques.

TRAINING

Customer Trainings

Trainings are offered on a first come first served basis and can last from 1 day to 5 days depending on subject matter complexity and familiarity with technical embroidery. Lessons are created customized to each customer's direct educational goals and project outline.

Textile Engineering Training

For many industries serviced, textiles is a totally new topic to their business. In these basic textile engineering trainings, we teach some of the basics of textiles required to be successful within the technical embroidery field. Fiber types, fabric construction, thread nomenclature, textile connections, and materials are some of the topics that can be explored.

EPCWIN Embroidery Software Training

EPCWin is the industry standard software for technical embroidery. This extremely powerful program allows you to control the placement of different materials with extremely high precision and customization. EPCWIN trainings are offered from basic get-to-know the program trainings, up to advanced techniques for customized applications.

Machine Operation Training

Training is provided on how to safely and reliably operate a ZSK technical embroidery machine. Topics include learning the T8 controller and running F, W, K and combination machines, and troubleshooting common user mistakes that arise during operation. Optimization of designs for different machines is also regularly covered.



Machine Maintenance Training

Performing regular maintenance on your machine maintains the quality that customers have come to expect from a ZSK technical embroidery machine. Regular maintenance is covered as well as specialized topics for accessories.

Machine Attachment Training

Customers often want to evaluate and test out the newest attachments that can upgrade the functionality of their ZSK machines. Popular attachments include the cording device to lay down soft wires and cords, electronic sequin devices to stitch small sequin circuit boards into the garment, and the new solder head for soldering electronics. Customized training courses for these electronics can be created as desired.

CONTACT

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ABOUT

ZSKUSA is a subsidiary company of ZSKSTICKMASCHINEN at Germany. ZSK has a long history of producing state of the art textile manufacturing and embroidery equipment.

ZSK is astutely focused on new developments and applications in the technical embroidery and technical textiles space.

ZSK Headquarters are located in Krefeld, Germany where all machines are designed, manufactured, and programmed.

Additionally, ZSK is determined to augment the capability of their machines through internal software developments and data driven embroidery solutions.