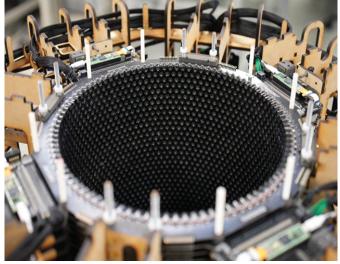


# **Ultrasonic Transducer**

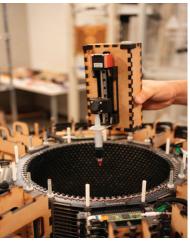




The Ultrasonic Transducer is a precision fiber deposition technology. Our approach centers around the development of a groundbreaking method for the tailored manipulation and controlled deposition of electrospun nanofibers. This groundbreaking advancement is poised to revolutionize various industries, ranging from sensors and 3D printing to the creation of stronger and more versatile materials.







## **Market Opportunity**

Currently, electrospun fibers cannot be created using conductive materials. This limitation hampers the development of fibers and systems that utilize conductive wires on the nanoscale. Additionally, the process of producing nanofibers is slow. However, production times can be significantly reduced by employing ultrasonic arrays to control fiber deposition.

Our target customers include manufacturers producing high surface area materials, biotechnology companies developing biosensors, and applications where high strength and low weight are required.

The market opportunity presented by our technology will pave the way for advancements across multiple industries. This includes faster production of nanofibers, enhanced sensor development, and the creation of novel materials.

### **Potential Applications**

- Electrospinning conductive nanofibers
- Antennas
- Lightning Protection
- EM Shielding
- Rigid fibers for fuel tanks to improve mechanical, thermal, and permeability properties while reducing micro-cracking
- Selective deposition of materials using high frequency transducers
- Cabling of multiple nanofibers
- Reduction in production time

#### **Contact**

#### Zeeshan Khan, Program Manager

P: 316-978-6982

E: zeeshan.khan@wichita.edu