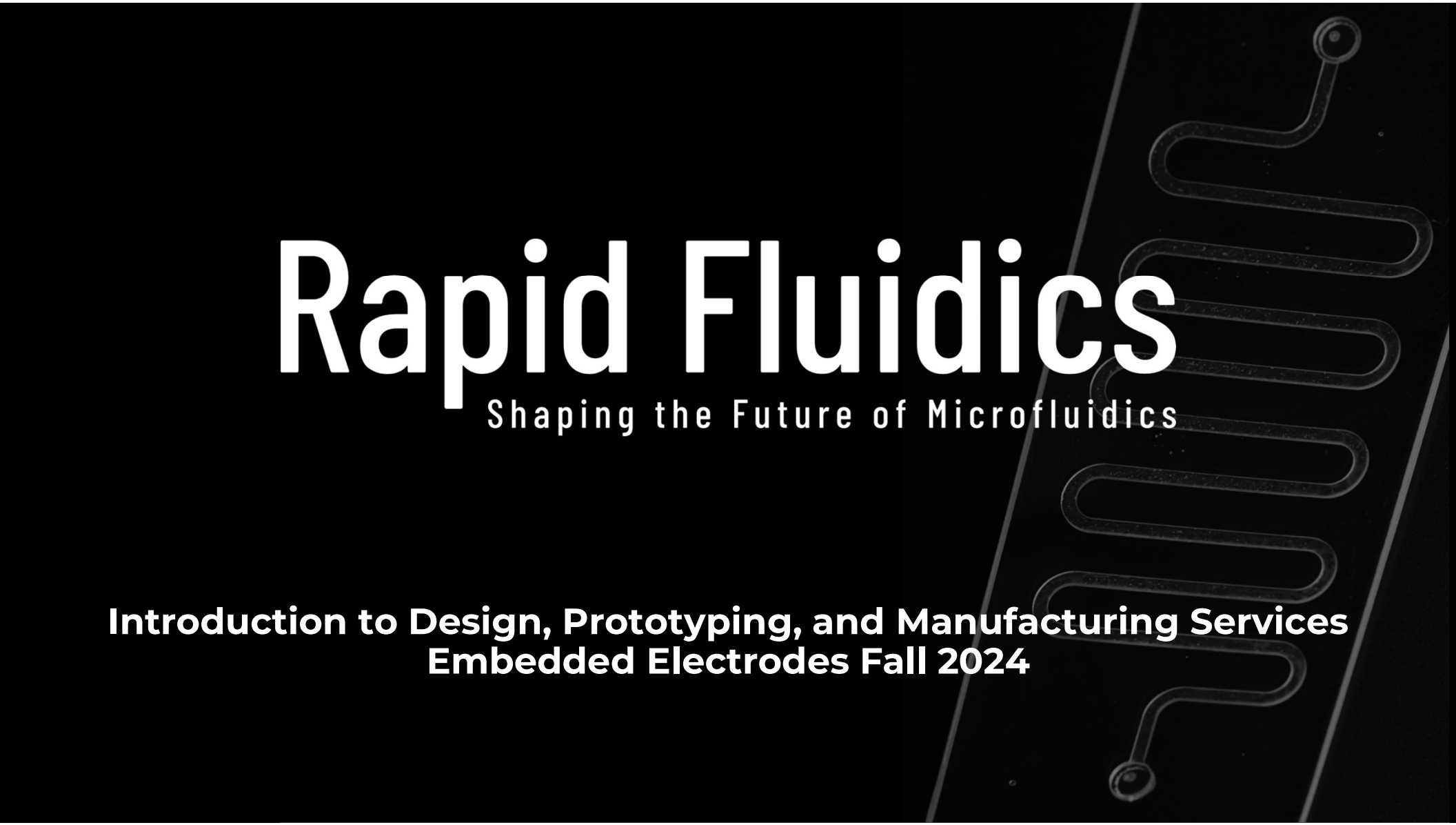
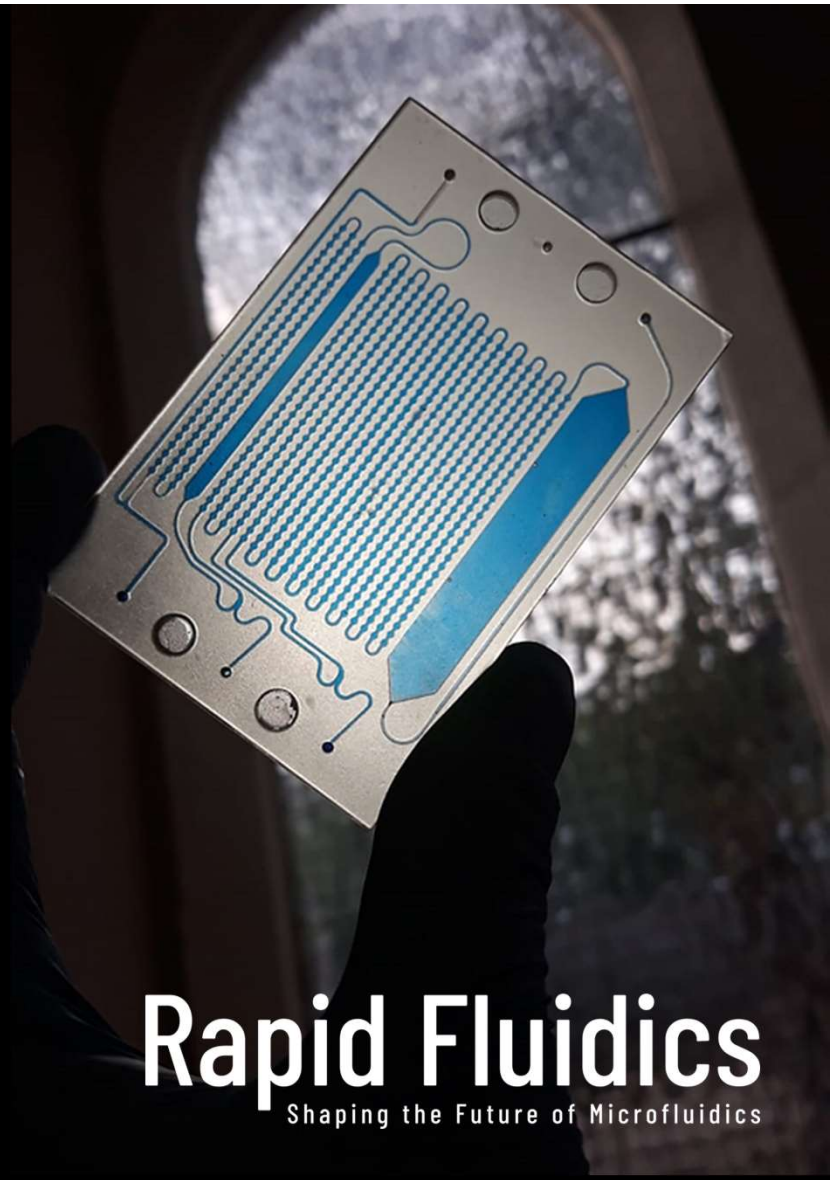



**Introduction to Design, Prototyping, and Manufacturing Services**
**Embedded Electrodes Fall 2024**

# What we do

- Microfluidic prototyping & production, utilising novel 3D printing and other specialised fabrication techniques
- 24-hour turnaround of bespoke prototype designs with minimal overhead costs.
- Design consulting services for microfluidic design & development
- Mid scale manufacturing with support to large scale manufacturing



# Capabilities - at a glance

Our core capabilities include rapid prototyping of enclosed microfluidic devices, complex pneumatic manifolds and other large format designs, and lab consumables using 3D printing technologies.

We can also offer rapid turn around open and tape sealed microfluidics either using 3D printing technology or pressure forming of thermoplastics depending on material/geometry.

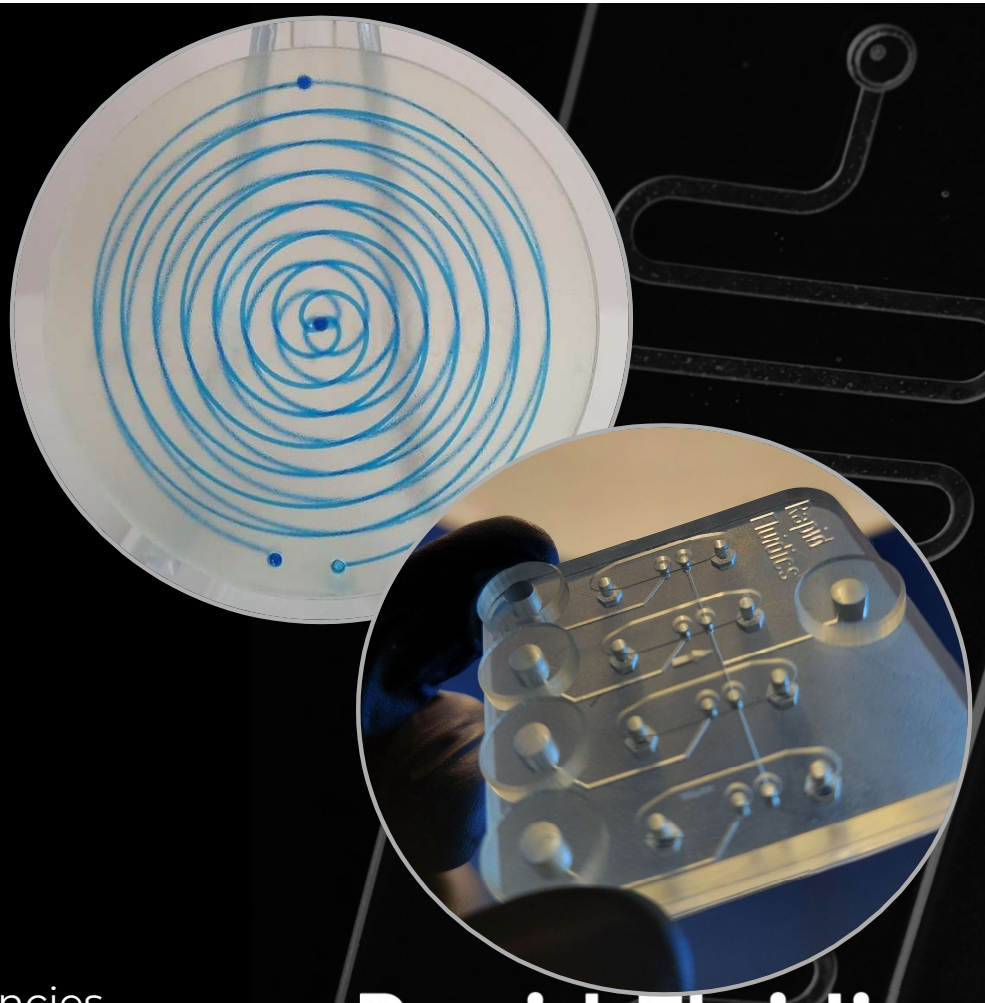
We have developed a process for embedding electronics and other components within enclosed microfluidic devices, providing a simple prototyping solution.


Rapid Fluidics

Shaping the Future of Microfluidics

# Our Customers

- Bio-Defense
- Medical Devices
- POC Diagnostics
- Automation
- Basic Research
- Drug and Therapeutic Development
- Aerospace Research
- Lab on a Chip/Organ on a Chip
- Environmental Testing
- Cosmetics Industry
- Contract Manufacturers and Design Consultancies



Rapid Fluidics

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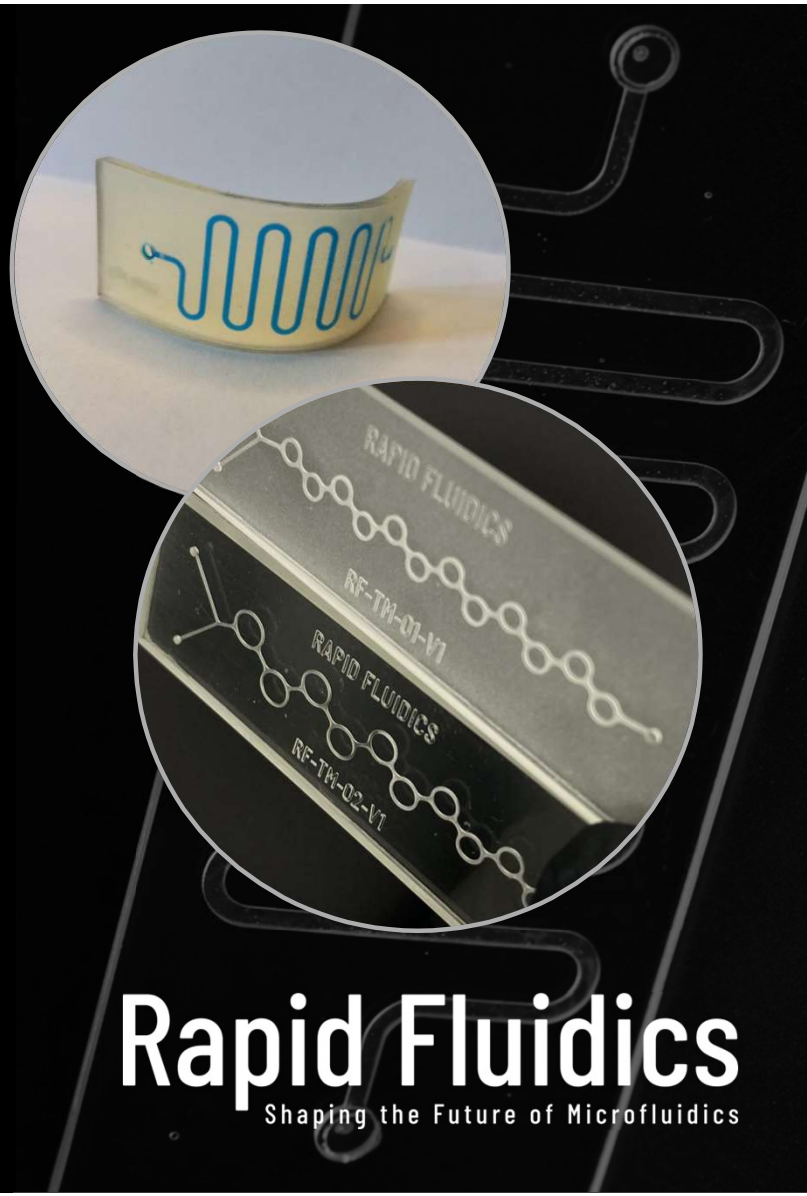
# Materials

We can manufacture 2D and 3D printed geometries in a range of high quality methacrylate based resins. Materials are selected to suit the geometry and application of a part, which can meet the following requirements:

- Optically clear or opaque
- High temperature resistant
- Flexible
- Multiple layers
- Biocompatible
- Integrate electrodes, glass, membrane materials, and flow control as well

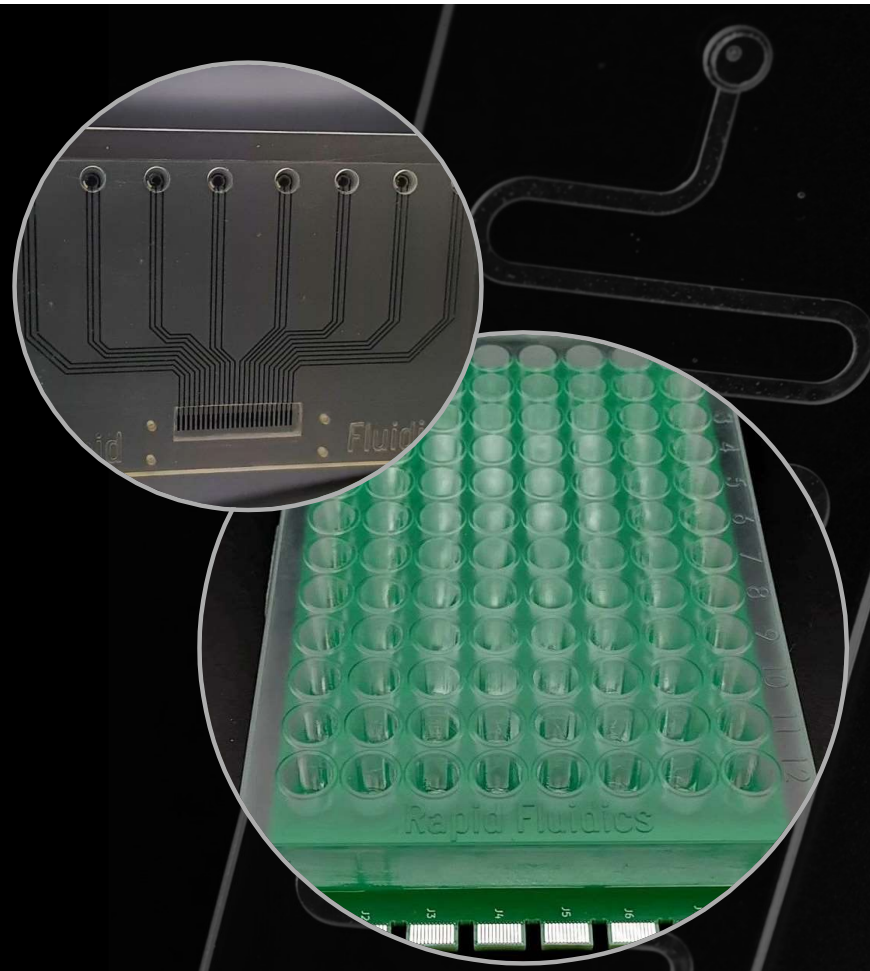
We can also pressure form some geometries in a range of thermoplastic materials.



# Embedded Electronics

Integrated electronics in microfluidics can be used for basic functionality such as light sources and sensors for fluid positioning; resistive heaters and thermocouples for accurate temperature control. They also can be used for electro-chemical biosensing in wells or channels.

Rapid Fluidics has experience with embedding and 3D-printing directly onto both PCBs and SPEs (Screen Printed Electrodes) allowing for direct contact between microfluidic tracks and chambers , or near-track alignment to maintain a layer of insulation.

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# Get in touch


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