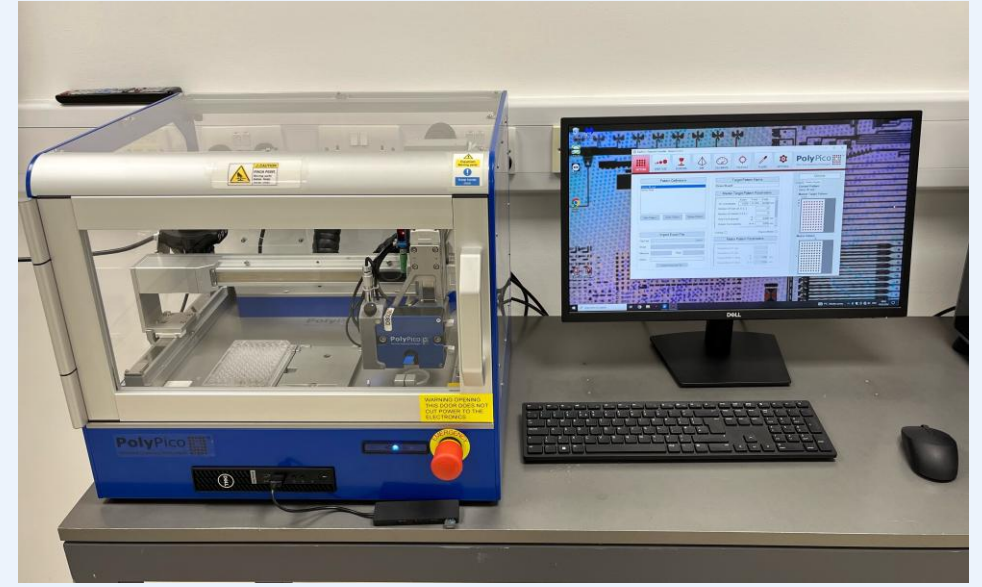


# Microdispensing

## *Precise fluid deposition*

### Introduction

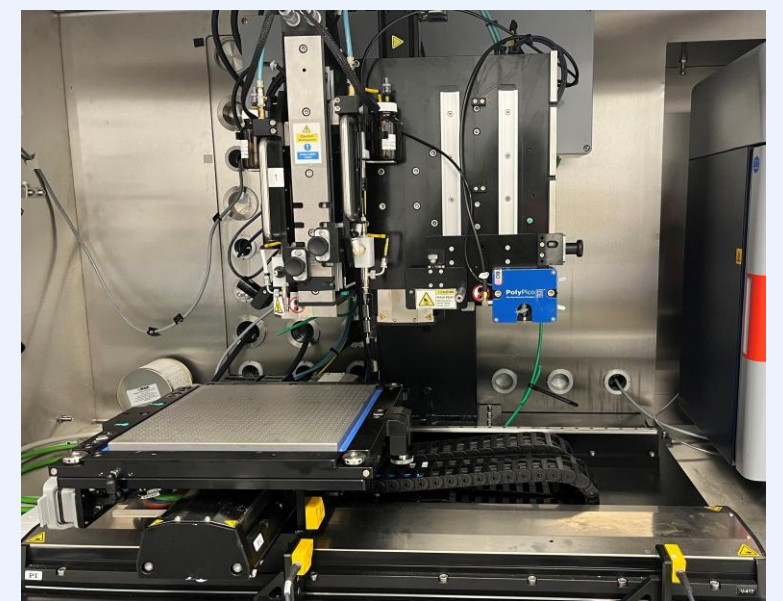
Piezoelectric micro-dispensing technology is used in precise fluid handling, giving high levels of control over the deposition of picolitre volumes of liquid. The technology is utilised in a wide range of applications from biomedical to microelectronics.



*PolyPico Printing Station*

### Applications

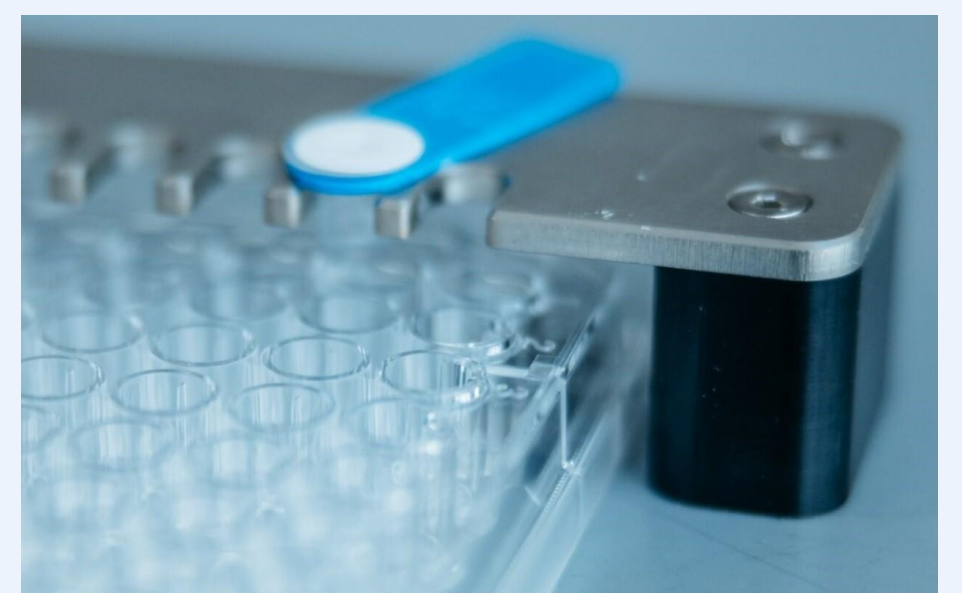
- Electronics- Printing microcircuits and flexible circuits, i.e. gas sensors or biosensors
- Life Sciences- Cell/tissue cultivation and development
- Industrial Applications- Precise deposition of adhesive and coatings



*Pilot Line Integrated PolyPico Unit*

### How Does it Work?

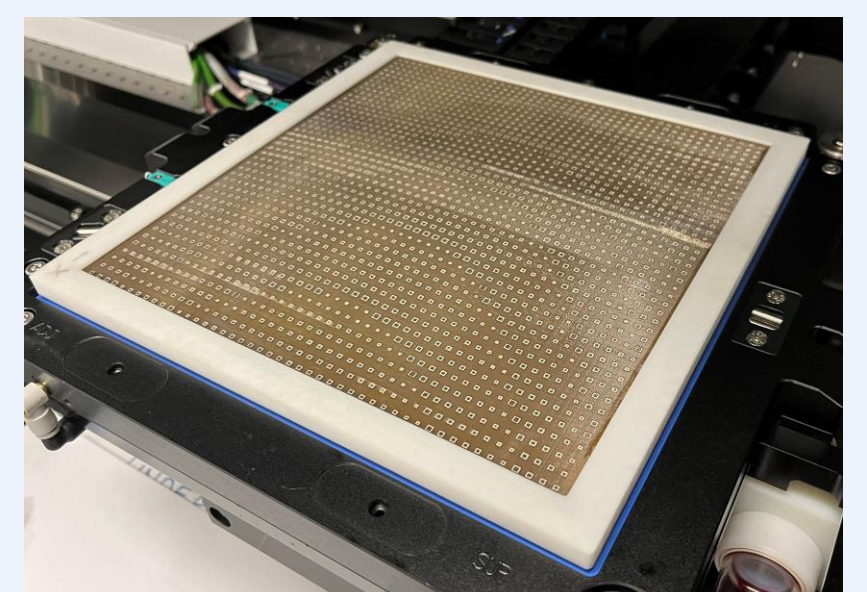
In our micro-dispensing systems a piezoelectric material undergoes deformation in response to an applied electric field. This effect is used to generate a pressure pulse, enabling the controlled ejection of small droplets or volumes of liquid. This system is mounted on precision XYZ motion stages to facilitate repeatable printing of complex patterns or controlled depositions.



*Simple Filling Process for Liquids*

### Technical Specifications

- Single droplet deposition up to 5 KHz
- Picolitre droplet volumes possible
- 100  $\mu$ L reservoir in cartridge
- Programmable XYZ movement and deposition
- Wide range of compatible materials: Inks/dyes, adhesives, solvents, gels, etc.



*Large Area Printing of Antenna Array*