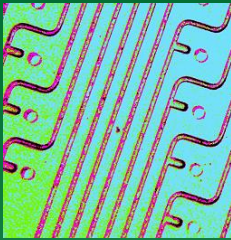




Solutions for Lab-on-Chip and Microfluidic Products

**WE UNDERSTAND THE SCIENCE
WE ENGINEER THE SOLUTION**



Microfluidics is a large and complex field, with fundamental fluid behavior that confers unique advantages in performance, but with often frustrating challenges in product design.

The advantages of compact, low cost, and low reagent usage microfluidic products opens up applications for remote, and distributed monitoring across a number of industries.

With a free initial consultation, we'll offer a clear-eyed, expert assessment of the scientific and engineering risks that must be addressed.

Link to Cool Videos:



Facilities

Class 10,000 Clean Room
Multi-layer Lamination
Laser Machining, 3D Printing
Pick & Place/ UV Bonding Automation
Injection/Compression Molding
Surface Modifications & Metrology
Application & Testing Lab
Ultrapure water system

Lab-on-Chip products can be costly to develop without a thoughtful strategy to address the engineering challenges while delivering on the scientific objective.

Key challenges involve engineering integration of disparate functional elements while achieving performance at a price point that supports single-use applications.

Aline applies a systems approach to creating a product. We excel at asking the right scientific and engineering questions, and deliver a solution.

Microfluidic Prototyping & Engineering Development

- Rapid prototyping of microfluidics in standard materials
- “Smart Capping Layer”:
 - Reduce injection molded part complexity
 - Achieve robust performance with a shorter development cycle
- Designs for manufacture begins at prototype stage
- Manufacture and Assembly for pilot production
- Robust, functional solutions for fluid control in the chip; passive & active
- Design and Integration of injection molded component
- Sensor integration – optical or electrochemical
- Reagent integration
- Materials expertise



Instrumented Control of Microfluidic Devices

- Modular & Custom instrumentation with options for
 - Pneumatic, Flow, and Thermal Control
- Focus on assay optimization with repeatable experimental control.
- Reduce risk and cost of system integration.

Applications

- Immunoassays, IVDs
- Cell Culture; Organ-on-Chip
- Nucleic Acid Detection
- Multiplexed Fluid Control Manifolds
- Flow Cells for Array Based Detection
- Droplet-based Microfluidics

