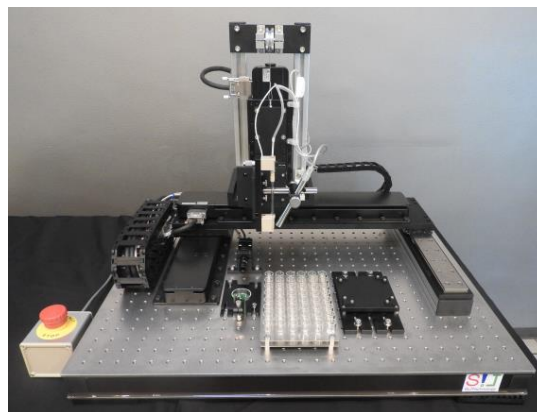


Pico-dispensing system — BIO Drop —

- Picoliter dispensing
 - Automatic filling & cleaning
 - Up to 16 ink reservoirs
 - Easy operation
- Click-based programming
User-friendly interface

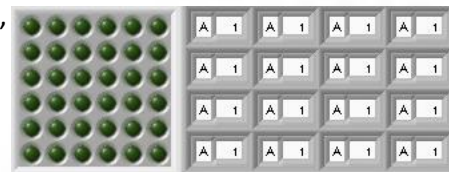


Outline

- Dispensing nanoliter to picoliter
Various kinds of liquids are usable (Functional material, organic ink, protein, DNA solution, reagent)
Automatic filling and cleaning system for contamination-free dispensing with a single nozzle
Camera for monitoring dispensed droplets

Advantages

- User-friendly interface
- Inkjet parameters are controllable while watching droplets being dispensed, even during printing.
- Simply click to dispense liquids at points to create a program.



Applications

- Spotting with functional materials for electronic sensors (e.g. tongue and nose)
- Synthesis of organic materials, proteins, reagents

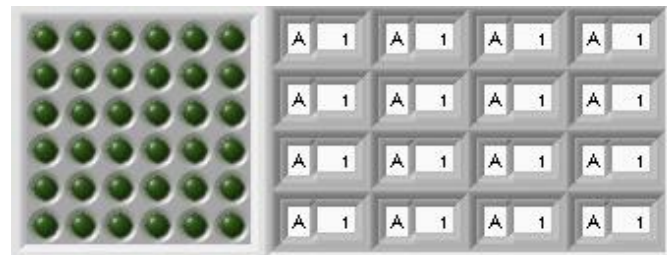
Just click dispensing points, inks and numbers of droplets

Specifications

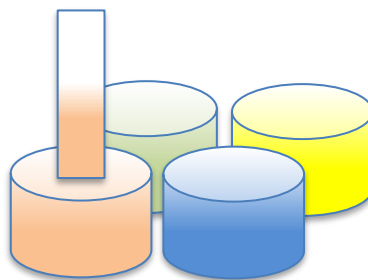
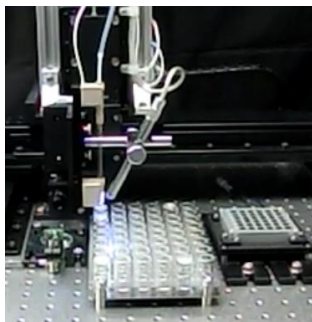
Item	BIO Drop (SBP-3020)
Driving axes	3 axes (X, Y, Z), gantry type, table top
Driving type	Ball screw + Stepping motor
Maximum working area	X 300mm, Y 200mm, Z 85mm
Maximum print area	X 100mm, Y 100mm
Inkjet type	Piezo type (automatic filling and cleaning)
Viscosity	1-20mPa.s (depends on use case)
Nozzle I.D.	30, 50, 70μm
Inkjet volume	20, 90, 180 pl (depends on use case)
Customized options	Large work area, multi-head, environment control chamber etc.

Pico-dispensing process

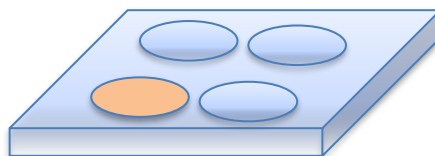
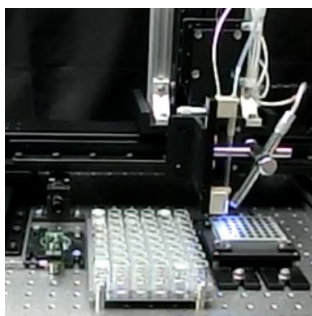
Step1. Click dispensing liquids, points, the numbers of droplets



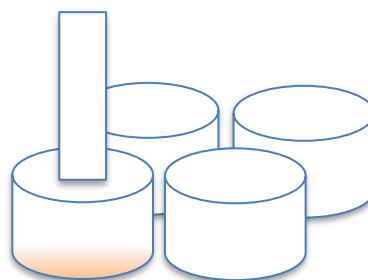
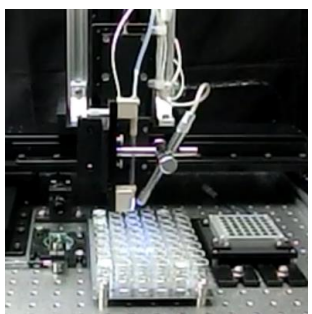
Step2. Liquid A is charged into the nozzle automatically.



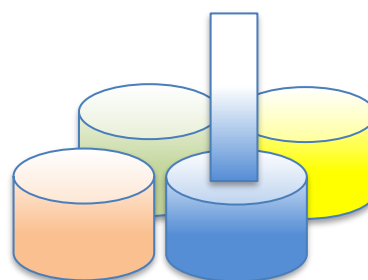
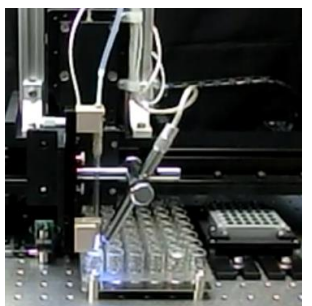
Step3. Liquid A is dispensed according to the program.



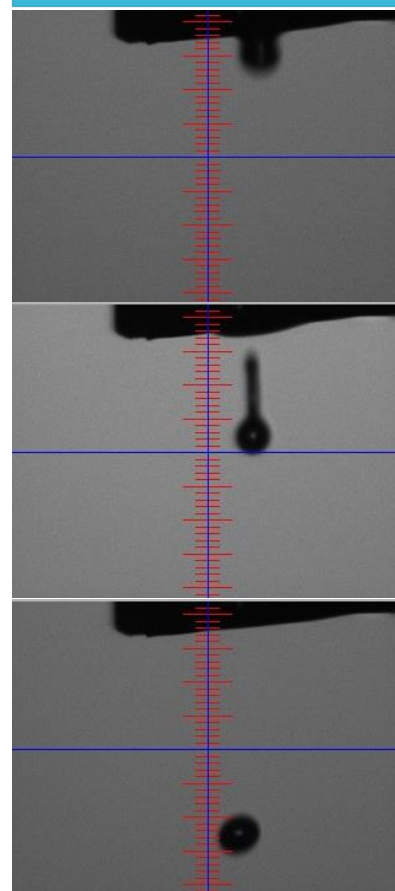
Step4. Liquid A is discharged and the nozzle is washed.



Step5. Liquid B is charged automatically.



Monitoring flying droplets



Control the numbers of droplets

