PeakJet

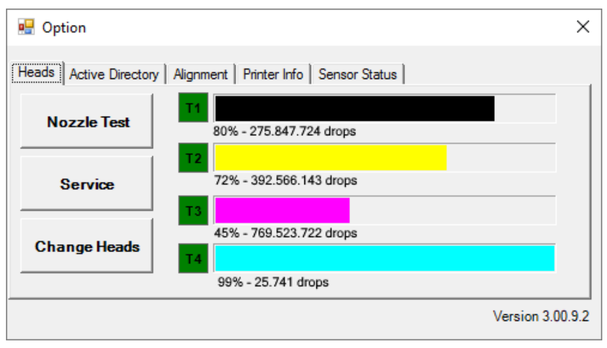
Innovative Inkjet & Additive Manufacturing Technology

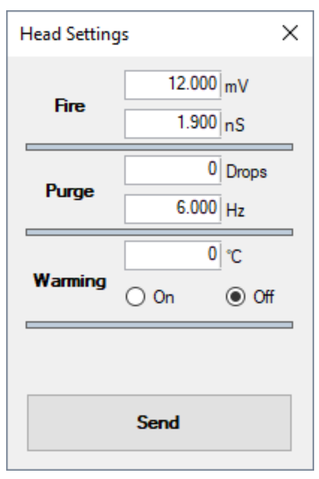
Thermal Inkjet Micro-Deposition

PeakJet develops and manufactures inkjet systems based on the leading world HP thermal inkjet technology.

The system suitable for research & developments requiring fluid jetting ability, is a flat bed unit with dedicated firmware and software, **giving to the user the ability to control the jetting parameters in order to optimize the process to a specific and unconventional fluid.**

PH number	**Up to 4 HP45 disposable printheads** - 600dpi physical resolution
Print swath	0,5” print swath - 0,5m/sec max print speed
Drop volume	**33 pl nominal, depends on the fluid**
PH protection	By RFID. To indicate fluid level and end-of-fluid
Jetting area	**690 x 590 mm**
Height along Z	Up to 150 mm
Height detection	Laser height detection and automatic “zero” positioning
Software	JackCube Utility and Driver - RIP (raster image processor)
OS	Windows 10 - 64bit



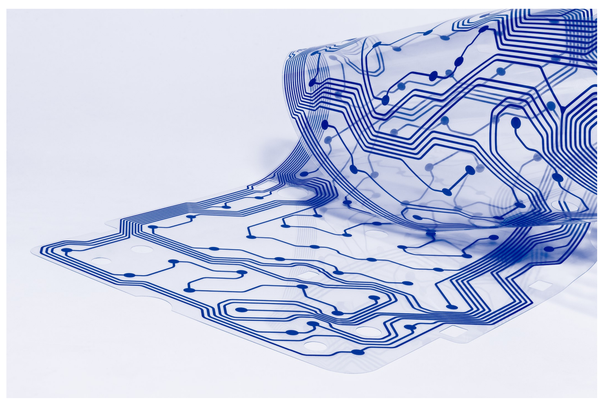


Jetting selections	**- number of printheads** **- number of jetting passes** **- print area for each printhead**
Fluids management	**Printheads may contain different fluids and can be managed accordingly and separately.** SW gives always the number of jetted drops: **the quantity of jetted material is dramatically precise.**

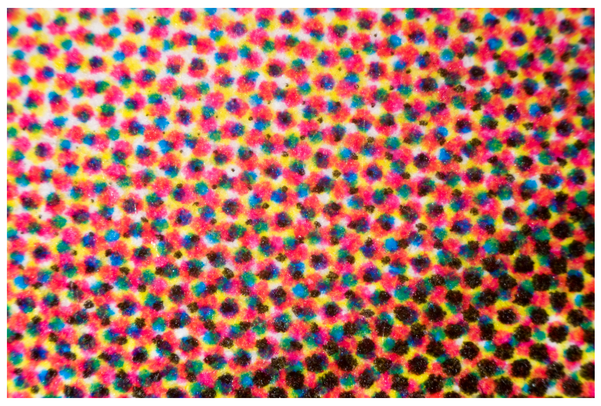
PeakJet is proud to work in strong synergy with THALLOSJET INKS & PRINTING SOLUTIONS

ThallosJet formulates inks and fluids based on conductive materials, oxides, insulators or biological materials such as cells, DNA chains, markers….
On the basis of their experience, they can formulate a new fluid according to the customer’s specifications or collaborate with the customer in developing the fluids.
It is, in fact, essential for the liquids to have physical/fluidic characteristics compatible with the printheads, as well as being suited to each particular need.

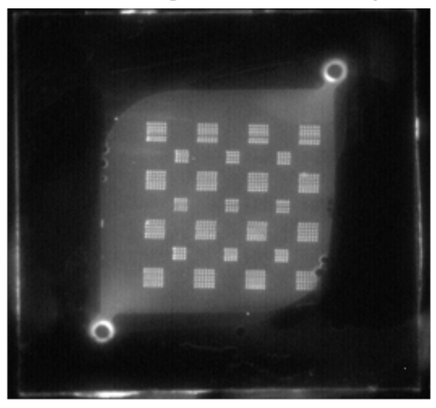
Printed electronics

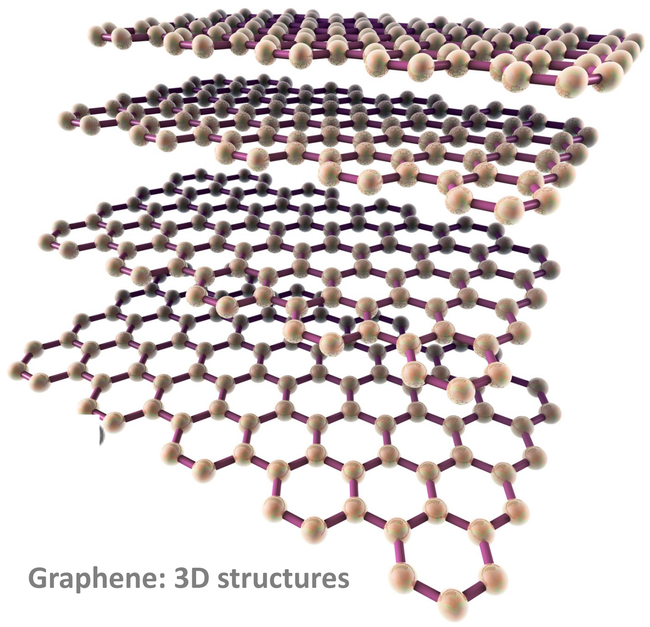


Inkjet micro-deposition



Micro-dosing on Lab-on-Chip





Graphene: 3D structures

Several innovative research applications set great importance to the controlled material deposition:

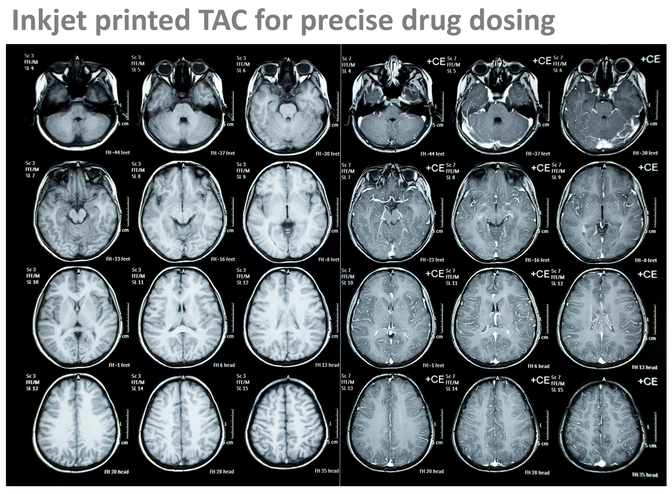
Printed electronics, Photovoltaics, Displays	⇨ metals microparticle and oxides
Additive manufacturing	⇨ graphene
Biological studies and analyses (Lab-on-Chip)	⇨ bio marker, DNA, organic cells
Precise medical drugs dosing	⇨ specially developed materials to simulate human tissues

Sufficient requirement for any material to be ejected is to be completely soluble or at least suspended in the carrier fluid, some little chemical trick will make the mixture jettable

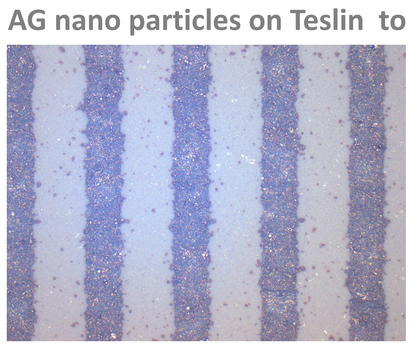
The development of the jetting unit is still ongoing, and some new features will be implemented.

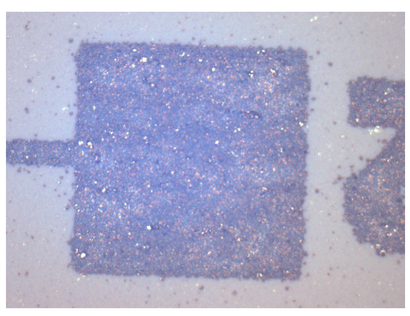
We are willing to get Researchers requests and to treasure their suggestions to optimize the product for the application.

Inkjet printed TAC for precise drug dosing



AG nano particles on Teslin to create PAD and coil for RFID





AG nano particles on Kapton to create a capacitor