HUMMINK

DREAM SMALLER

High Precision Capillary Printing
EXECUTIVE SUMMARY

• Hummink is the leading developer and supplier of High Precision Capillary Printing (HPCAP), a revolutionary technology for the display and semiconductor industry.

• Spun-off from world-renowned research institutes, the company is based in Paris, with representatives in key regions (Korea, US, Taiwan, Japan, Europe).

• After less than two years of existence, Hummink already sold R&D equipments, and is in advanced discussion with tier-one equipment makers to scale up the technology, and to reach HVM capability by 2024.

• Hummink is a technology provider, enabling customers to have access to both equipments and inks through a single partnership.
HIGH PRECISION CAPILLARY PRINTING TECHNOLOGY

Spun-off from world-renowned physics labs

Adaptable width pipette
Ink
Capillary deposition
Substrate
UNIQUE FREEDOM OF DESIGN

Any Material
👉 Silver
👉 Copper
👉 Gold
👉 Indium
👉 Polymers
👉 Quantum Dots
👉 Etc.

Any Surface
👉 SiO2 Wafers
👉 Glass
👉 Flexible substrate
👉 Etc.
ADDING A NEW DIMENSION TO PRINTING

- HPCAP: High Precision Capillary Printing
- UPD: Ultra precise deposition
- EHD: Electrohydrodynamic deposition

- Ink Viscosity:
  - 100,000 cp
  - 10,000 cp
  - 1,000 cp
  - 100 cp
  - 10 cp

- Dimension:
  - 100 µm
  - 10 µm
  - 1 µm
  - 0.1 µm

INKJET

Ultra precise deposition

Electrohydrodynamic deposition
UNMATCHED PRECISION & ACCURACY

Desired drop
Splash
Satellite drop

INKJET

EHD

UPD

HPCAP

No satellite drop.
No splash.
ONE TOOL TO RULE THEM ALL

Breaking the compromise between agility and miniaturization

- **16 cm** travel range
- **0.3 µm to 50 µm** printing line width
- **20 nm** XY positioning accuracy
- High magnification **camera**
- Dedicated **user-friendly software**
- **Compact** (table top machine, 70cm cube)
- Compatible **cleanroom** environment
- **Turnkey** solution with provided inks & pipettes
CUSTOMERS TESTIMONIAL

Pr Vincent Noel,
Professor at Université Paris-Cité

“Humminck’s technology offers unique manufacturing possibilities by allowing various materials to be deposited at scales inaccessible with existing technologies in our laboratory as well as in the market. We have thus acquired their NAZCA equipment to carry out numerous research projects in micro-electronics, with a strong industrial dimension”
THANK YOU!

contact@hummink.com