

The logo for GEMaC features the text 'GEMaC' in a large, bold, sans-serif font. The letters are dark grey. Behind the text, there are several thin, light grey lines that curve and sweep across the page, creating a sense of motion or light rays. Below the main text, the full name of the group is written in a smaller, bold, sans-serif font.

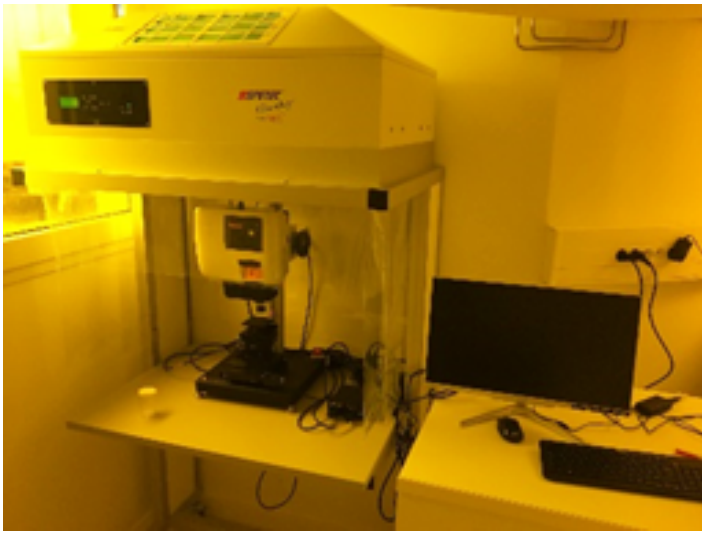
GEMaC

**Groupe d'Étude
de la Matière Condensée**

OPTICAL LITHOGRAPHY

The photolithography equipment in GEMaC allows fast prototyping of micrometric patterns thanks to a liquid crystal matrix of 1920×1080 pixels, which acts as a mask. The system is equipped with various objectives allowing to work at several different scales according to the needs. The smallest patterns are of order of a few micrometers. The apparatus is equipped with a x , y and z stage (300 nm step) for insulating areas that are larger than the field of view given by the objective.

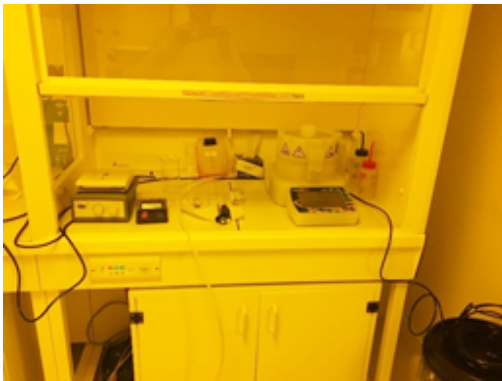
The photolithography system is associated with a rotating plate for photoresist deposition, a heating plate for annealing and a chemistry bench for post-insolation development. It is compatible with all kinds of resists: positive, negative and reversible.



Equipement de photolithographie SMART PRINT

Objective	FOV (mm)	Smallest struct. (μm)	Precision (μm)
x 0.5	25.6 x 14.4	< 40	13.3
x 1	13.6 x 7.7	< 23	7.7
x 2.5	5.4 x 3	< 8	2.8
x 5	2.7 x 1.5	< 4	1.4
x 10	1.35 x 0.75	< 2	0.7

Available objectives, field of view (FOV) and precision



Rotating plate for liquid resist deposition, annealing and development