In the Origami project we fabricate three-dimensional micro- and nanostructures by means of capillary forces. Using an origami-like technique, planar structures are folded to produce functional 3D-objects. To this purpose use is made of capillary interactions and surface tension forces.

Capillarity is a particularly effective mechanism since it becomes dominant at small scales (where surface tension forces dominate over bulk forces), the process benefits therefore from miniaturization.

Groups involved: Transducers Science and Technology (TST, MESA+)

Companies involved: Micronit, Philips, IBM Zürich Research

People involved: Antoine Legrain (PhD student), Erwin Berenschot (Engineer), Niels Tas (associate professor), Leon Abelmann (associate professor), M.C. Elwenspoek (professor)

Publications