

Fully programmable inflatable panels

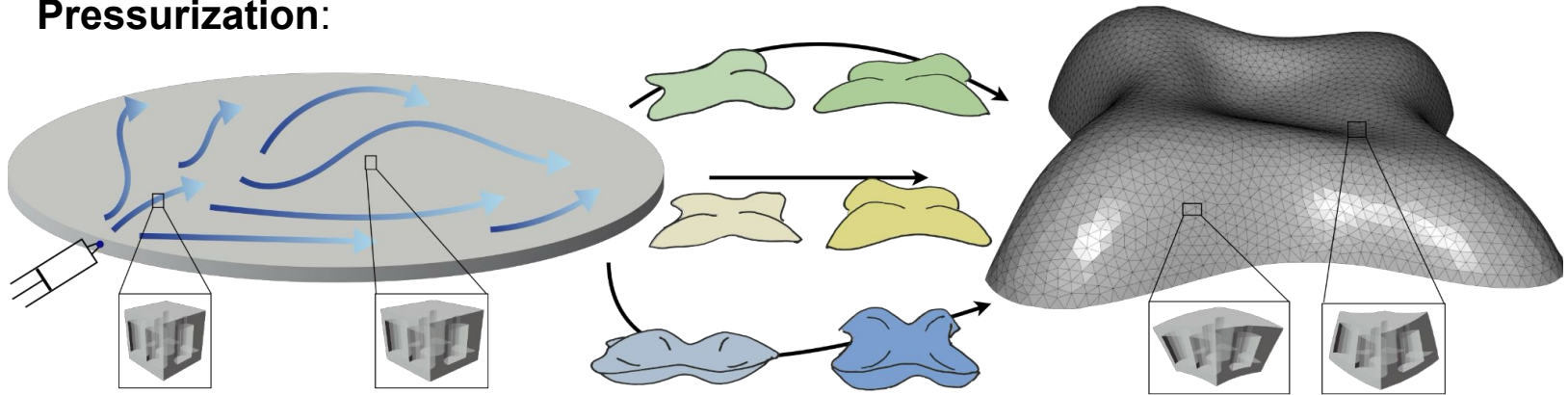
Ofir Mirkin, Mélina Skouras, Emmanuel Siéfert

- Goal: 2D structure → Programmed 3D shape
- Inspiration: Morphogenesis in plants



Dervaux and Ben Amar, PRL, 2008

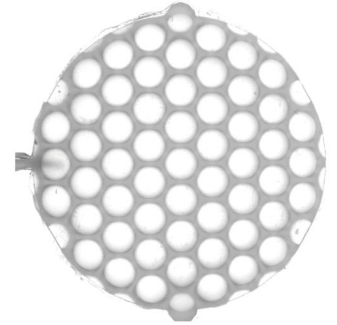
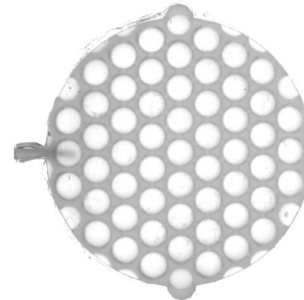
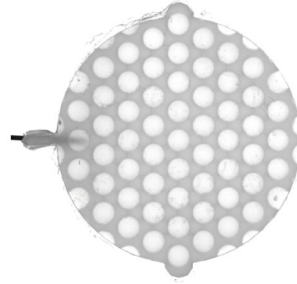
- Pressurization:



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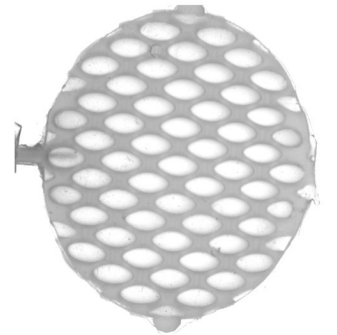
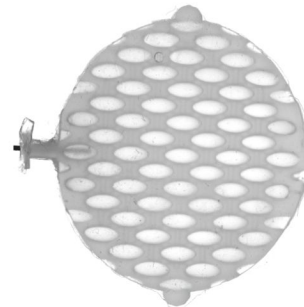
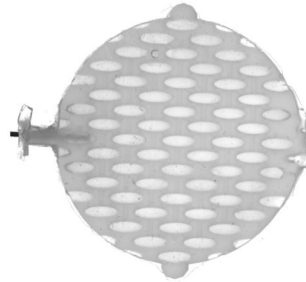


Isotropic deformation:



————— pressure —————>

Anisotropic deformation:



————— pressure —————>