

A new Colloidal cybernetic sysTem towaRds 2030

THE PROJECT

COGITOR is a project funded under the topic H2020-FETOPEN-2018-2020 / H2020-FETOPEN-2018-2019-2020-01 programme, aiming at developing a liquid state cybernetic system prototype. Holonomic memory and computing, pressure sensing, and energy harvesting from thermal gradients will be achieved using colloids. The prototype will be tested in extreme environments for potential space applications.

The project will create a liquid robot. It will "feel" the external environment like our skin, being sensible to pressure and temperature. It will be able to heal autonomously when wounded. A basic liquid memory and a rudimentary logic will be implemented. It will produce a small amount of energy to "be alive".





OBJECTIVES

Studying liquid robots will impact our

understanding of living systems, including cells: their intelligence, autonomy, adaptability, self-repair aspects will be explored. The exploration of difficult environments, including outer space, gas giants such as Jupiter, small bodies such as comets and asteroids, will be impacted by our outcomes. We also expect to impact electronics and computer science!

BENEFITS

The benefits of a base science research are for all the people. Inspiring new forms of art, of understanding, of conceiving a robot are among the expected benefits. The consortium will boost the European position in soft robotics and grant supremacy in liquid robotics.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 964388

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