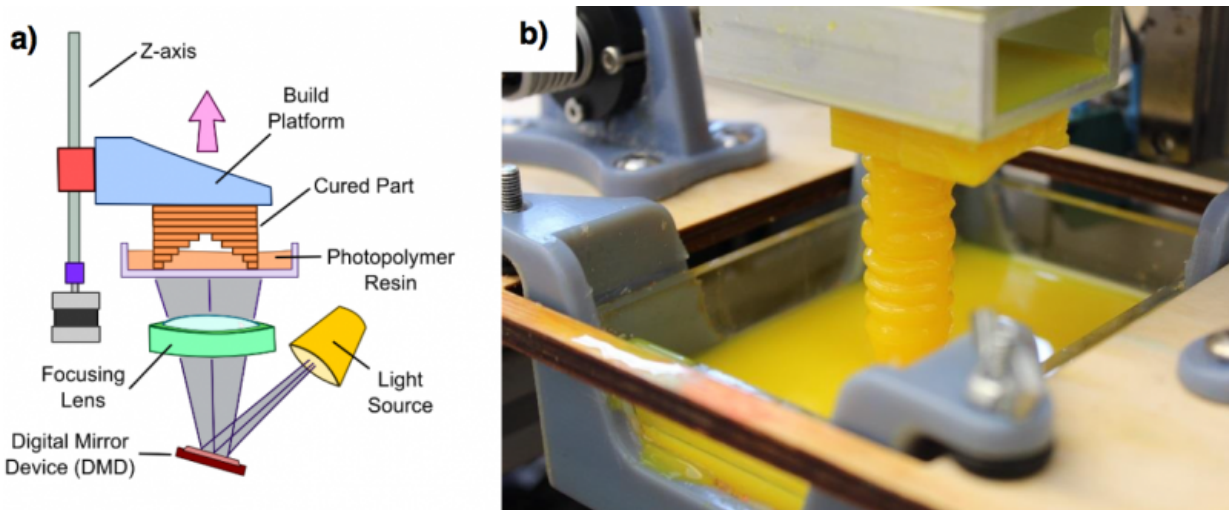


3-D-printed 'soft' robotic tentacle displays new level of agility (w/ Video)

October 15 2015



Credit: Cornell University

Cornell University engineers have developed a method to re-create the arrangement of muscles of an octopus tentacle, using an elastomer and 3D printer.

The research was groundbreaking since until now, 3D printing methods could not directly print a soft robotic device with as much agility and degree of freedom as the new method provides, according to Rob Shepherd, assistant professor of mechanical and [aerospace engineering](#) and senior author of the study.

The research team developed the mechanical design using a digital mask projection stereolithography system for the 3D printing of soft actuators. The system is detailed in a recent study published in the journal *Bioinspiration & Biomimetics*, by Ph.D. student and lead-author Bryan Peele and the team of researchers.

"Based on the demonstration reported here and the possibilities for improved materials, this nascent printing process for soft actuators is a promising route to sophisticated, biomimetic systems."

Provided by Cornell University

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