

عنوان مقاله:

Developing a novel and different micro-robot for marine purpose

محل انتشار:

کنفرانس بین المللی علوم و مهندسی (سال: 1394)

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نویسندگان:

.Iman Zare - *Department of Cell and Molecular Biology, Semnan University, Semnan, Iran*

AliReza Shourangiz Haghighi - *Department of Mechanical Engineering, Jahrom University, Jahrom, Iran*

AliReza Fallahi - *Department of Mechanical Engineering, Jahrom University, Jahrom, Iran*

Saeed Rahmanian - *Department of Mechanical Engineering, Jahrom University, Jahrom, Iran*

خلاصه مقاله:

We inspired from the motional mechanisms of an inchworm, flexible tuna-tails and batoid fish, by utilizing ICPF actuators, for moving the micro-robot. Since motional mechanism these three animal species to motion the surface and underwater for cleaning of organic pollutants according to a set of superficial processes on the water, used from filteringsanordning at the moment. Filtration process from micro-robot can be used in water ability purification at surface or underwater in limited places. It also is designed in a way that the filteringsanordning can be easily installable on the most of micro-robots. The mechanisms and the speed of moving of the micro-robot are calculated theoretically. At last a primary pattern is made (comprises of ten actuators) and a collection of investigations for evaluating the speed of floating and walking motions are done. The six ICPF actuators are utilized to implement grasping motion.

کلمات کلیدی:

Bio-inspired micro-robots, inchworm- robot, filter, micro ICPF actuator, skimmer F.D.B.O.S

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