



THE COLLECTIVE BEHAVIOR OF PIEZOELECTRIC WALKING MICROROBOTS: EXPERIMENTAL RESULTS

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ABSTRACT—This paper presents some experimental results concerning the collective behavior of a colony of PLIF (Piezo Light Intelligent Flea) microrobots. An introduction to the peculiarities of piezoelectric PLIF microrobots is given, and then the results of co-operation by three robots are illustrated in both simulation and a real application. From the results it emerges that the strategy implemented is robust to both external disturbances and faults in some robots.

Key Words: Microrobots, Visual feedback, Cooperative behaviour, Legged robots.