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High Positioning Repeatability of Miniature Actuator

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Autofocusing actuators in camera phones should have a reduced profile and an improved performance in accordance with the requirements of consumer electronic products. In this study, we first discuss the detailed design of the miniature actuator presented in our previous work⁽¹⁰⁾ and then describe an experiment to test its positioning repeatability. As compared with conventional voice coil motor (VCM) actuators positioned by open-loop control, the proposed miniature VCM actuator is small, has a high positioning repeatability and can improve the positioning repeatability by 87.5% of the typical value.

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