

Dielectric Elastomer EAP를 이용한 폰 카메라용
Lens 구동기 제작 및 제어
**Design and Control of AF Lens Actuator for Mobile Phone
Using Dielectric Elastomer EAP**

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Abstract : Nowadays, subminiature lens actuators are being developed with the demand of AF lens for high performance of the mobile phone camera. Though the VCM is the current, development of new types of actuators are needed due to the structural problem and etc.. A new type of actuator for AF lens using Dielectric Elastomer Electroactive Polymer(EAP) is proposed in this paper. DE EAP has advantages in its weight, ease of fabrication and low power consumption. The mathematical model is obtained by Hamilton's principle and verified by finite element analysis and experiments. The controller is designed and evaluated by experiments.