Progress Towards Ion Trap Piezo Coupling\textsuperscript{1} K. WRIGHT, K.G. JOHNSON, K. COLLINS, C. MONROE, Univ of Maryland-College Park — We report our current experimental progress towards coupling a macroscopic piezoelectric element to an ion. Current progress is being made using a four-rod Paul trap and a 1mm cube piezo made of PZT. By tuning the secular frequency of a trapped Yb\textsuperscript{171} ion near the resonant motional eigenmode of the piezo, we should see an increase in the coupling between the two objects. We hope to see this coupling through observation of a peak in the ion heating rate as a function of ion secular frequency and distance to the piezo.

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