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A Dual-Axis Dual-Lateral Position Sensitive Silicon Detector for Charged Particle Detection SARAH SOISSON, BRIAN STEIN, L. MAY, Texas A&M University, R.Q. DIENHOFFER, Oswego State University of New York, M. JANDEL, Los Alamos National Laboratory, G. SOULIOTIS, Texas A&M University, D.V. SHETTY, Texas A&M Unversity, A.L. KEKSIS, Los Alamos National Laboratory, S. WUENSCHEL, Z. KOHLEY, S.J. YENNELLO, Texas A&M University — A dual-axis duo-lateral position sensitive silicon detector has been developed for charged particle detection. This type of detector has two conductive strips along opposite edges on each side of the detector. The contacts on the front are perpendicular to those on the back. When an incident particle hits the detector the charge is split between the contacts on each resistive layer. This allows for the total energy to be determined by the summation of either the contacts on the front side or the back side of the detector. The position of each axis can be easily determined using standard formulas such as X = (Q1-Q2)/(Q1+Q2), where Q is the charge collected from one contact. This design allows for position and energy to be determined without the necessity of software correction. Design of the detector, energy and position resolution will be presented.

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