LBAS - A Non-Contact, High Precision Detector Alignment Tool\(^1\) M. KILBURN, A.M. ROGERS, B. NETT, M.S. WALLACE, W.G. LYNCH, Z.Y. SUN, NSCL MSU — Strip Si detectors provide high precision energy and position information for charged particles. Such information is needed for inverse kinematics experiments or for the reconstruction of particle unbound states of nuclei. In order to fully utilize this precision, it is often necessary to accurately align the strips to the exact beam spot on target and to the direction of the beam. We have developed a Laser Based Alignment System (LBAS) that permits high (sub millimeter) precision measurements of the location of a silicon strip detector without any mechanical contact between detector and measuring device. In this talk, the design will be described and its performance as an alignment tool for several recent strip detector experiments will be discussed.

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