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High-Resolution B Dot Probe for Measuring 3D Magnetic Fields in the MOCHI Labjet Experiment¹ MANUEL AZUARA ROSALES, JENS VON DER LINDEN, SETTHIVOINE YOU, University of Washington — The MOCHI Labjet experiment will use a triple electrode planar plasma gun to explore canonical helicity transport in laboratory astrophysical jets. Canonical helicity transport suggests that destabilizing magnetic energy can be converted into stabilizing shear flows at two-fluid spatial scales $l_i \sim \frac{c}{w_{pi}}$. A high-resolution \vec{B} probe array, capable of measuring magnetic field dynamics at length and time scales important to canonical helicity transport is being built. The probe array consists of three tridents, made of 5.13 mm OD and 4.32 mm ID stainless steel tubes of 102 cm length, enclosing a total of 1215 commercial inductor chips with a three axis spatial resolution of 11 mm. The average value for the effective NA of each inductor chip is $1.21 \cdot 10^{-4} \text{ m}^2$. The probe array lays in a plane perpendicular to the jet, and is axially translatable.

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