

Abstract Submitted  
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**Development of a Beam Intensity Detector**<sup>1</sup> JUSTIN BROWNE,  
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The Active Target Time Projection Chamber (AT-TPC) at Michigan State University (MSU) will be filled with a gas that is used as both the target and the detector. To determine the intensity of the beam as it enters the chamber, a detector must be placed immediately upstream of the AT-TPC. The beam intensity is measured by passing the beam through a foil and measuring the amount of ionization in the foil. Because the signal from the primary electrons would be too weak, the electrons are multiplied in a Multichannel Plate (MCP) detector. The electrons are transported out of the beam path to the MCP by electric and magnetic fields.

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