

Specimen Sensing

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The crystal automounter at MacCHESS beamline F1 has a Sample sensor to detect the presence of a sample in the data collection position. This is necessary to prevent double-mounting and detect mount failures. Currently a reflecting laser sensor is used for this purpose, but this has not proven to be robust and reliable. The positioning of the sensor is finicky, and it is foiled by such common conditions as frost on the sample pin. The student will explore other detection technologies and work to integrate them with the existing equipment.