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BAM-2 Automounter development at MacCHESS

The Berkeley AutoMounter model 2 (BAM-2), developed at LBNL and implemented at MacCHESS and APS GMCA-CAT beamlines has undergone further development at MacCHESS, with an emphasis on improving reliability and speed. The BAM-2 at MacCHESS is now in regular service at CHESS beamline F1. The BAM-2 accepts the same samples as the earlier BAM model: "ALS" pins with ALS, Uni- or Rigaku ACTOR pucks; while the purpose-built pneumatic actuators have been replaced with a commercially available three-axis Cartesian robot. Examples will be presented to highlight the flexibility of a primarily software-based machine, and to show hardware and software changes designed to improve speed and reliability. Particular attention will be paid to more extensive utilization of the built-in force/torque sensor.