

Press Manipulation System

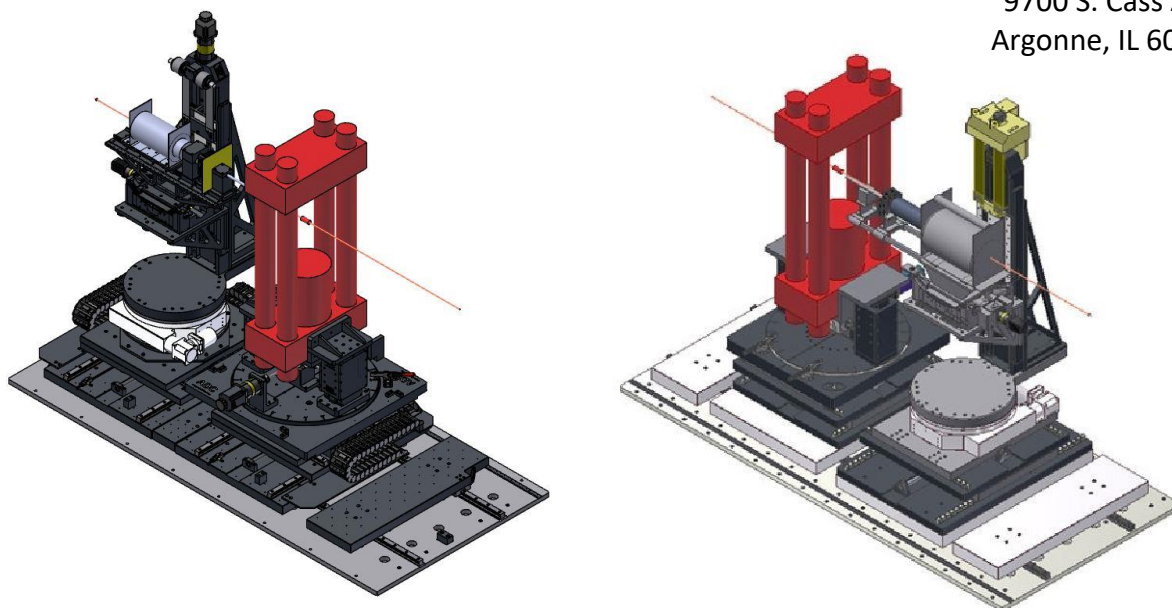


Customer:

University of Chicago/APS

9700 S. Cass Ave.

Argonne, IL 60439



A system was designed for University of Chicago that allows for the positioning of a large press that is aligned with the beam and a detector that is located downstream. Since the press and detector need to move independently, two sub-systems were designed. One sub-system controls the motion of the 2000lb press. The second sub-system supports a detector assembly and provides motion in several directions. Both sub-systems share a set of guide rails which are mounted to a large base plate. This plate is designed to be grouted to the hutch floor, providing a permanent and stable base for the entire system. The sub-systems can be manually moved back and forth on the guide rails and secured using manual rail clamps.

Key Specifications:

Detector Sub-System

Parameter	Value
Vertical Translation	+/- 200mm
Transverse to Beam	+/- 200mm
Beam Direction	+/- 50mm
Rotation in Horizontal Plane	+/- 180°
Rotation in Vertical Plane	+/- 18°

Press Sub-System

Parameter	Value
Vertical Translation	+/- 50mm
Transverse to Beam	+/- 50mm
Beam Direction	+/- 50mm
Yaw About Vertical Axis	+/- 3°