



**Customer:**  
Argonne National Laboratory  
9700 S. Cass Avenue  
Lemont, IL 60439



This optical table for APS's facility has two degrees of driven motion, vertical and horizontal. The vertical motion is accomplished by four ADC 5 kN utility jacks driven by a single NEMA 34 stepper motor to prevent binding. The horizontal motion is supported on THK HSR35 rails and driven by a 20x5 mm ball screw from NSK with a NEMA 23 stepper motor and 10:1 planetary gearbox. All motions have adjustable limit switches to change the travel within the maximum range. Adjustable feet were used to meet the customer's height requirements, placing the table top at 725mm from the floor while sitting on the feet at mid vertical travel. The addition of handles to the system, in conjunction with large, durable casters, makes the system easy to move around the facility as needed. The table is designed to have a full range of horizontal travel without having the overall dimensions exceed 825mm in the direction of horizontal travel.

