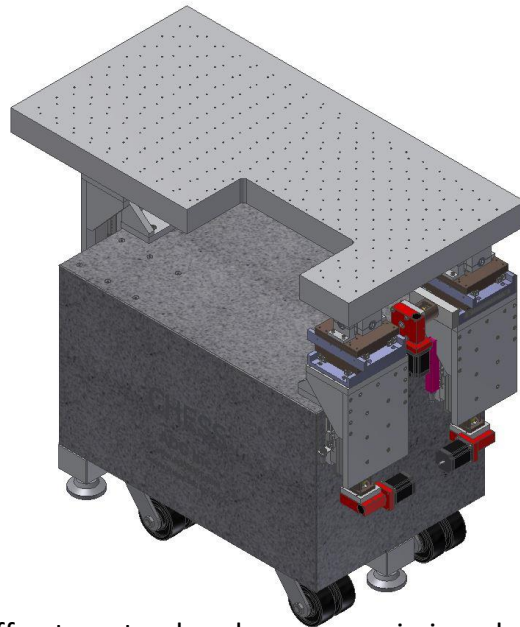


# Cornell High Energy Synchrotron Source (CHESS) Custom Optical Table



**Customer:**  
Cornell University  
Wilson Synchrotron Lab and Ring  
161 Synchrotron Dr  
Ithaca NY, 14853



A new load frame / diffractometer has been commissioned at CHESS for X-ray diffraction experiments on engineering materials during in-situ mechanical testing. The system was designed with flexibility in mind, allowing for X-ray diffraction experiments to be combined with a wide suite of mechanical tests. Loads are applied to samples by a Bose 3330 testing system capable of applying a max 3000N at a frequency of 100hz for high-cycle fatigue testing. 250lbs (1112N) and 1000lbs (4448N) load cells are available for high and low load amplitude loading. Fixtures are available for tensile, compressive, and fully reversed loading. A furnace capable of heating samples to 1000°C during mechanical loading is also available.

