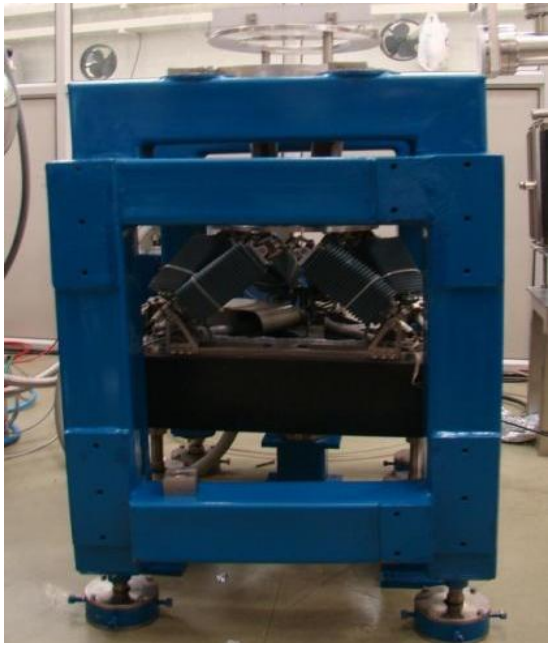
Parallel Mechanism based Mirror Alignment System for Synchrotron Application at BL-10, INDUS-2, RRCAT, Indore

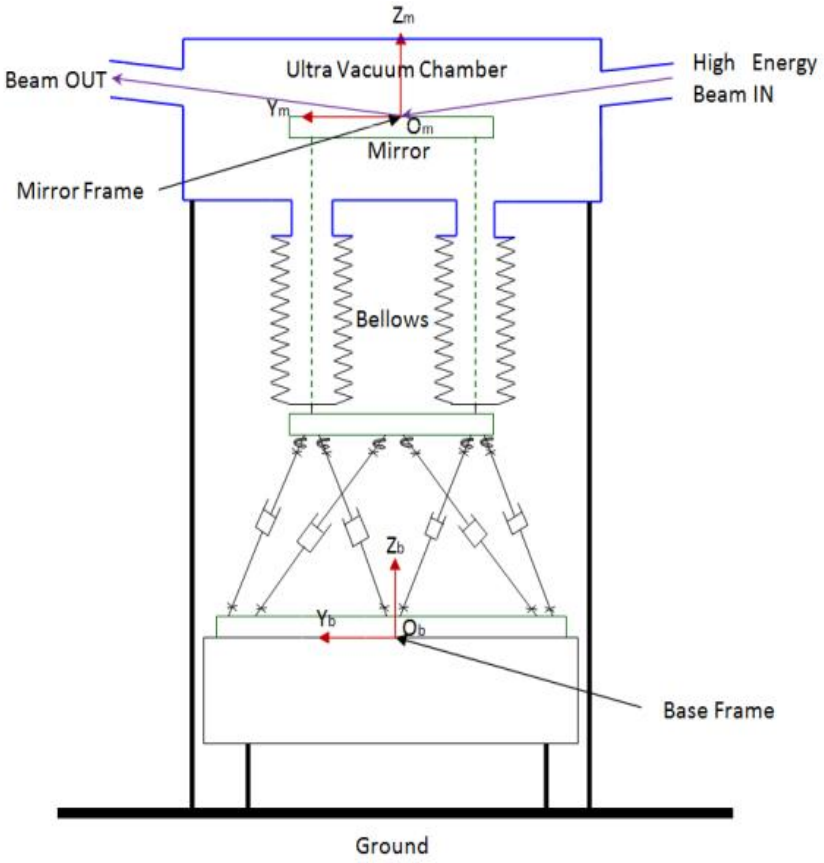
A compact parallel mechanism with six degrees of freedom has been designed, developed and implemented at BL-10, Indus-2, RRCAT, Indore for aligning the mirror with the incident beam. **A 6 DOF parallel mechanism based system** has been developed and installed for positioning and orienting the mirror for beam alignment with respect to the target.

A 6 DOF parallel mechanism



Installation of beam alignment system at the synchrotron facility at RRCAT, Indore.

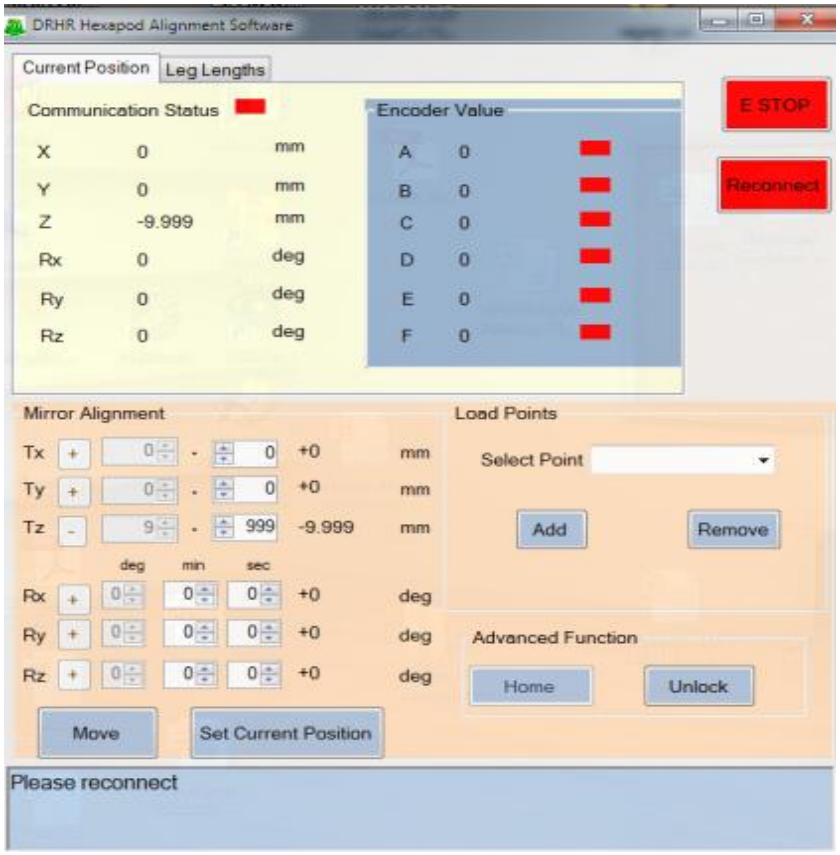
Mirror Positioning Mechanism System (MPMS) based beam alignment system



Schematic arrangement of Beam alignment system

Mirror Positioning Mechanism System (MPMS) undergoing load test in CMM lab

Guided User Interface (GUI) for beam alignment system



Position and orientation of platform along with encoder valued displayed

Leg lengths of each leg getting displayed