

Rotational Platform for NSRRC



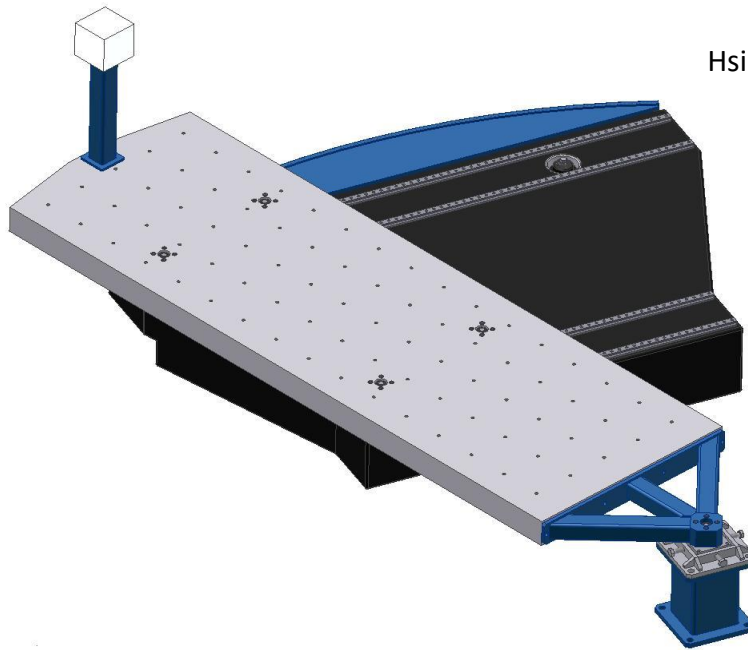
Customer:

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The rotational platform was designed for use at Spring8 to allow for the rotation of the beamline components following a diamond monochromator to maintain system alignment over the range of beam energies. A 5-phase stepper motor drives the platform with an effective open loop resolution of .002 degrees through a chain drive. A rotary encoder can be used both as a digital readout of the position and to close the positioning loop for a system accuracy of up to .0005 degrees. The machine base is composed of polymer concrete with mounting surfaces ground to $\pm 20\mu\text{m}$ and combined with high precision crossed linear recirculating bearing rails to give the total system straightness of trajectory of $\pm 50\mu\text{m}$ over the 36-degree arc.

