

# HENEX Alignment Procedures

The HENEX instrument consists of seven sub-components:

1. Spectrometer Assembly
2. Drive Electronics (DE) assembly
3. Instrument Insertion Module Interface Plate (MIP)
4. Internal Battery Pack (IBP)
5. Diagnostic Interface Unit (DIU)
6. Diagnostic Control Processor Unit (DCP)
7. Battery Recharge Interface Control Keeper (BRICK).

The transmission crystal spectrometer is aligned to the instrument's optical axis at NIST using optical and x-ray alignment techniques as was done for the HXS transmission spectrometer fielded at LLE. The reflection crystal boxes are attached to the transmission crystal spectrometer and aligned to the optical axis.

A reference optical flat is installed inside the instrument housing.

The nosecone will be installed at the host laser facility and co-aligned to the instrument's optical axis.

