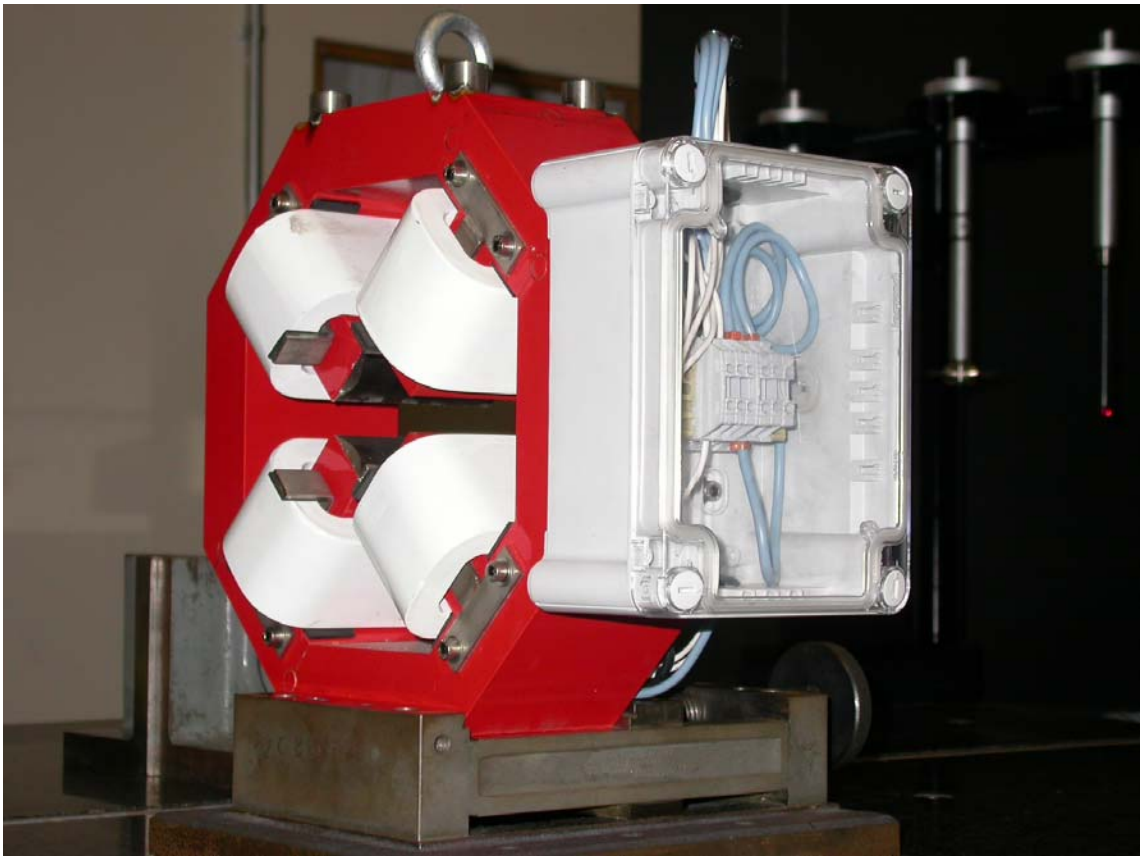
Linac Coherent Light Source
Stanford Linear Accelerator Center
Stanford Synchrotron Radiation Laboratory

LCLS Tweeter Quadrupole Magnet
FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Carl Rago
Date:	Wednesday, August 09, 2006
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Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

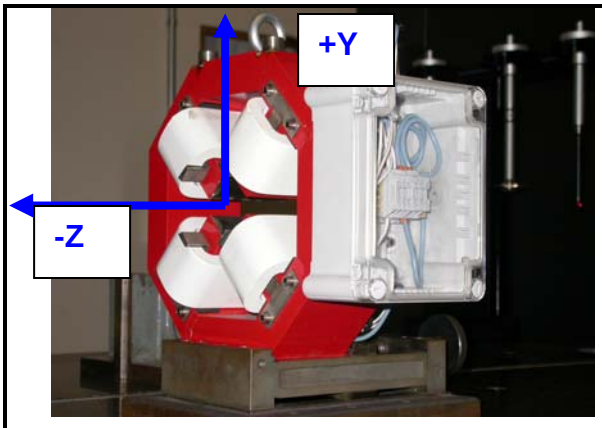
- A plane on the top part of the magnet (red) by the Tooling Ball Sockets.
    - +X is from TB 3 & 4 side to TB 1 & 2 side.

"Z" Zero

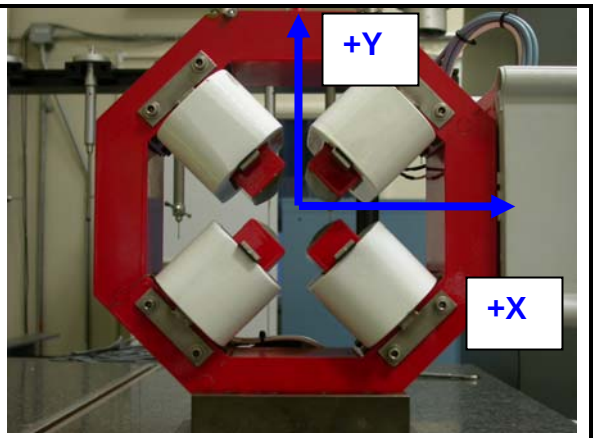
- Mid-Plane of the magnet

"X" & "Y" Zero

- On both ends
    - Tangent point of each radii (4 on each end, 8 total).
        - Create a line between diagonal tangent points creates 2 lines.
            - Intersect the lines.
                - Creates a point on each end.
- Create a line of these 2 end points
    - This is the "X" & "Y" Zero, and Beamline or" Z" Axis.



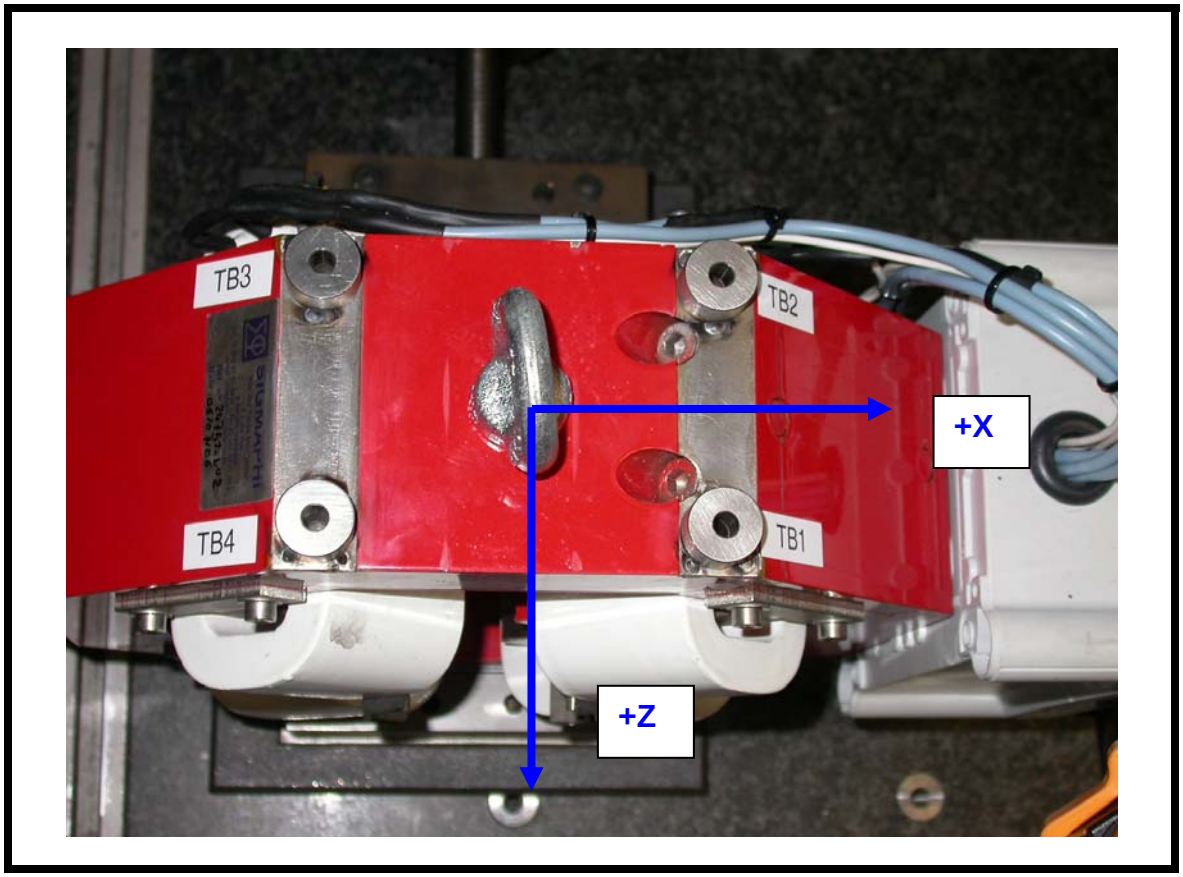
ISO



Front View

Tooling Ball Measurements/Locations

Top of magnet; view from “+Y”



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00069	0.49575	1.97152	6.74046	1.25205
TB 2	0.00044	0.49663	1.96952	6.73871	-1.26191
TB 3	0.00058	0.49809	-1.96839	6.73974	-1.25148
TB 4	0.00072	0.49587	-1.96703	6.74232	1.25050

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.69120	1.69084	0.00036
B-D	1.69164	1.19160	0.00004