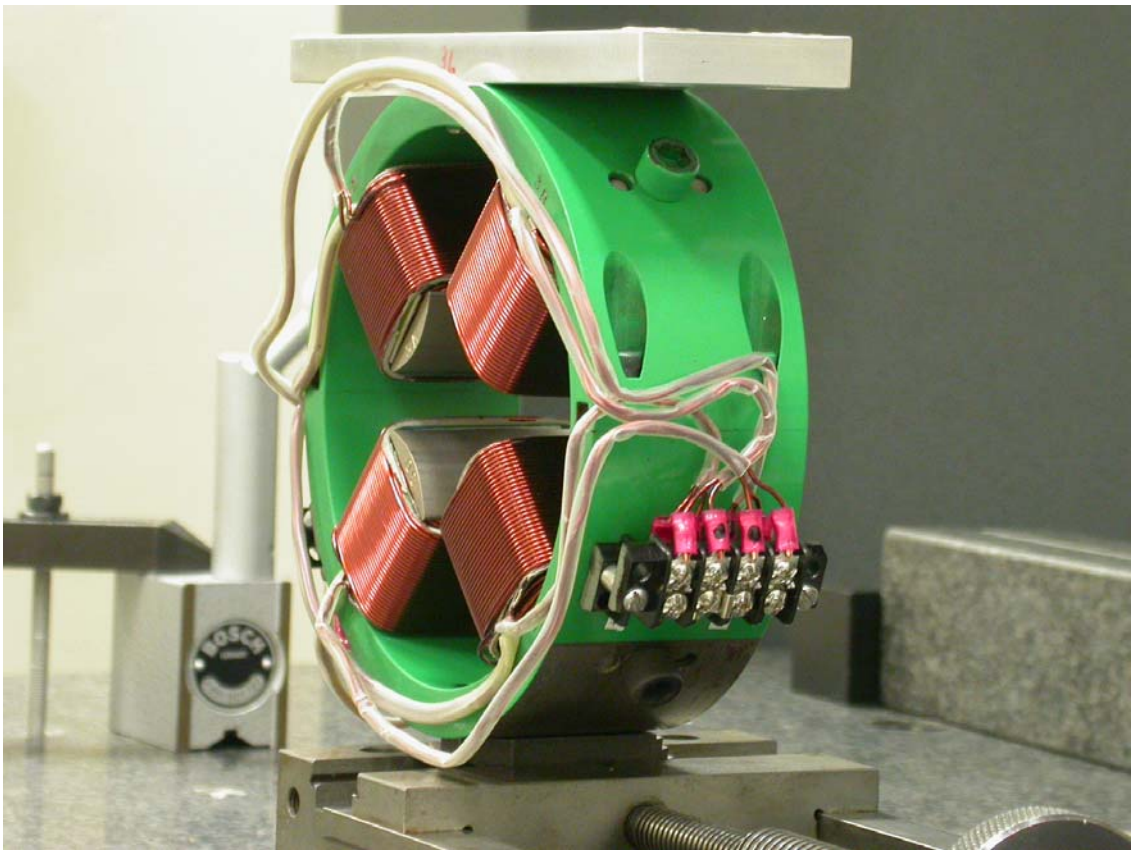
Linac Coherent Light Source
Stanford Linear Accelerator Center
Stanford Synchrotron Radiation Laboratory

LCLS Gun Spectrometer Quad Dipole Corrector Magnet
FIDUCIALIZATION REPORT



Inspector:	Keith Caban
Responsible Engineer:	Roger Carr
Date:	Monday, May 15, 2006
Work Order/Charge No.:	20966-1 Task – 30
Serial Number	1

Part Set-up – Coordinate System Set-up

Planar Alignment

- Mid-Plane of the magnet

Spatial Alignment

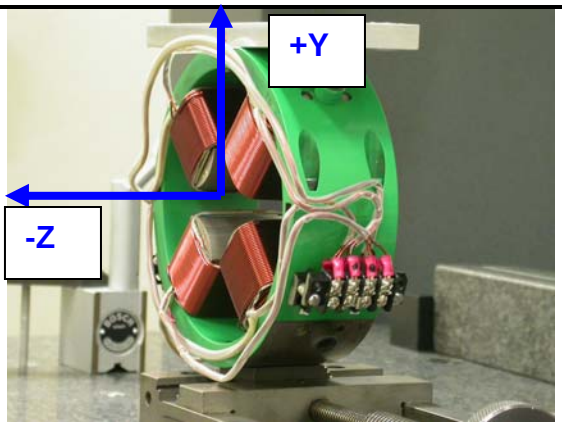
- A line on the top part of the magnet
    - o +X is from TB 1 & 2 side to TB 3 & 4 Side

"Z" Zero

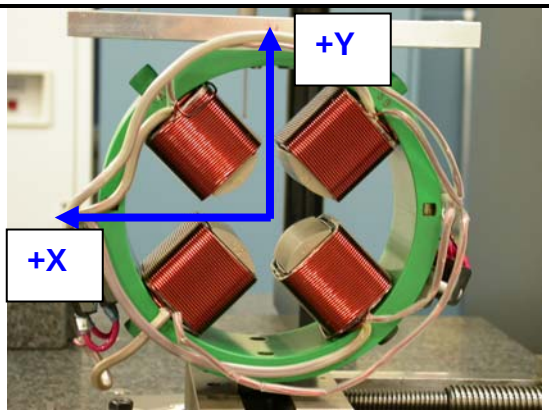
- Mid-Plane of the magnet

"X" & "Y" Zero

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



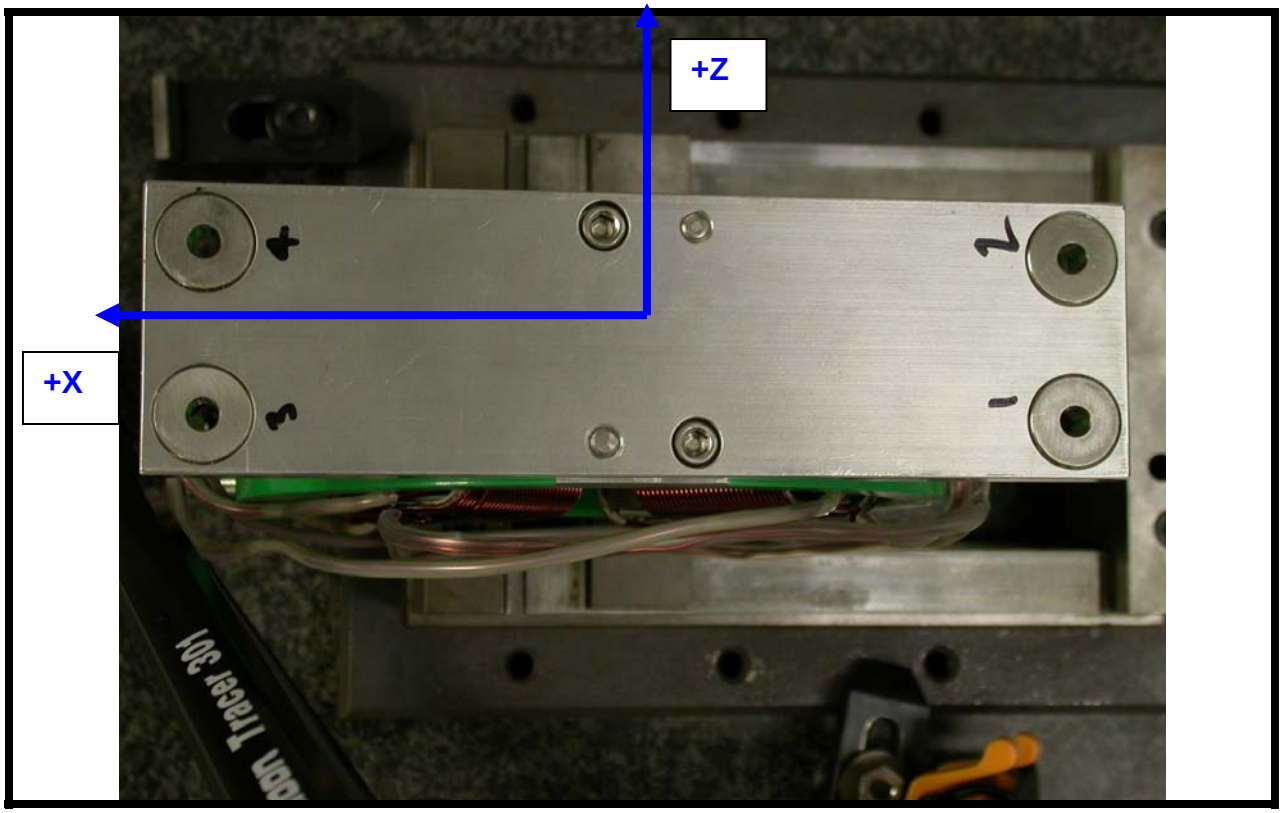
ISO



BACK VIEW

Tooling Ball Measurements/Locations

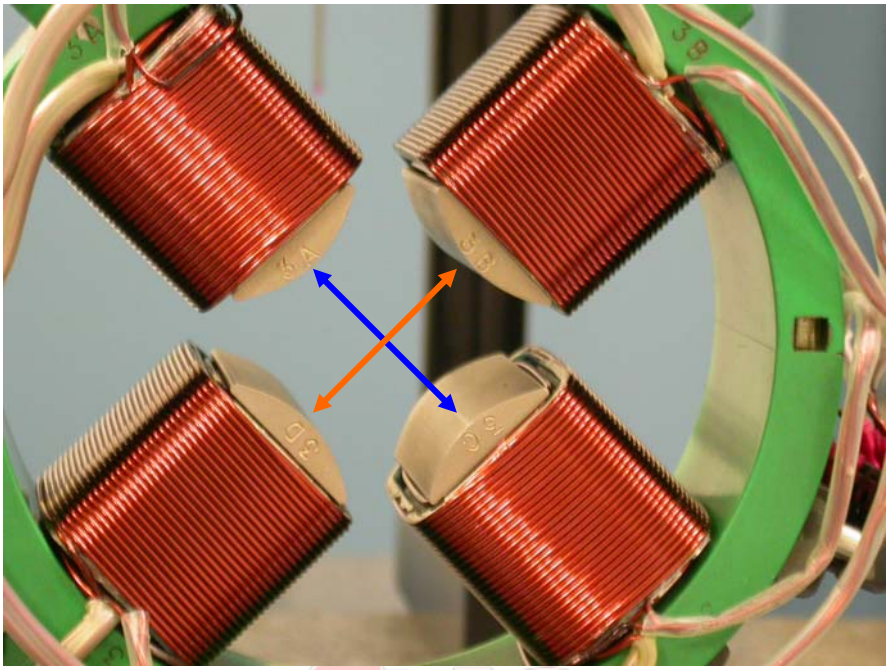
Top of magnet; view from “+Y”



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00065	0.49657	-3.51001	4.82224	-0.68423
TB 2	0.00090	0.49673	-3.51151	4.82349	0.66619
TB 3	0.00073	0.49698	3.54427	4.82099	-0.68228
TB 4	0.00097	0.49708	3.54301	4.82216	0.66856

Additional Requested Measurements

Distance from Tangent point of 4X poletips



A-C = 1.66521
B-D = 1.66543

Parallelism of 4X pole tips to the beamline

A. 0.00037
B. 0.00033
C. 0.00044
D. 0.00052