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

LCLS 'QE' QUADRUPOLE MAGNET FIDUCIALIZATION REPORT

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Responsible Engineer:	Carl Rago
Date:	Monday, November 27, 2006
Work Order/Charge No.:	92-4264-2
Serial Number:	000016
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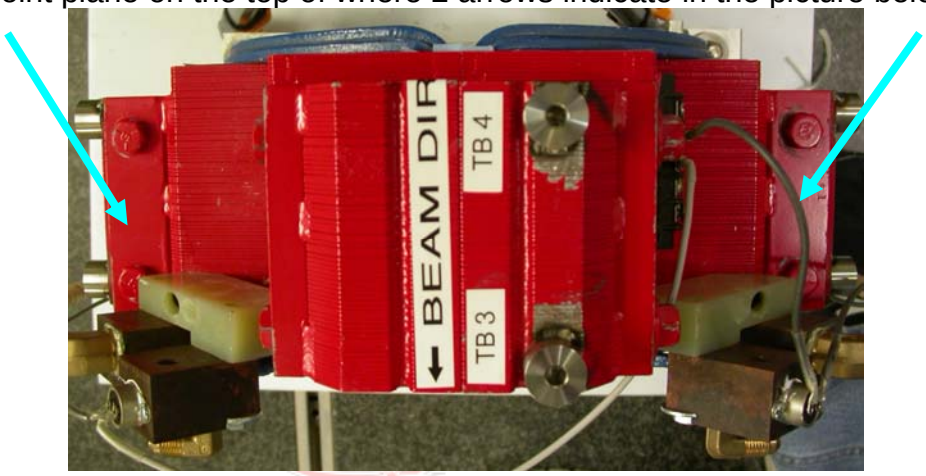
Part Set-up – Coordinate System Set-up

Spatial Alignment

- Geometric axis of the poles of the magnet.

Planar Alignment

- A 4 point plane on the top of where 2 arrows indicate in the picture below.

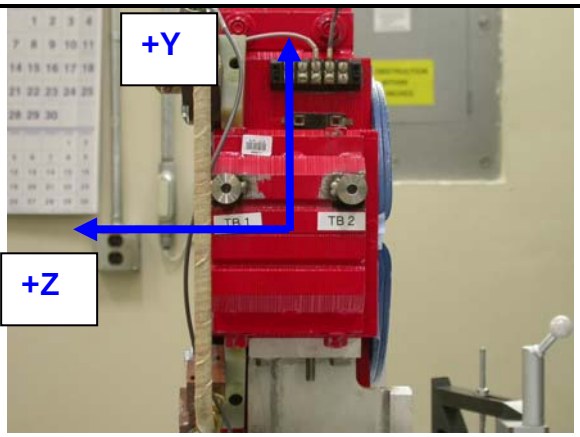


"Z" Zero

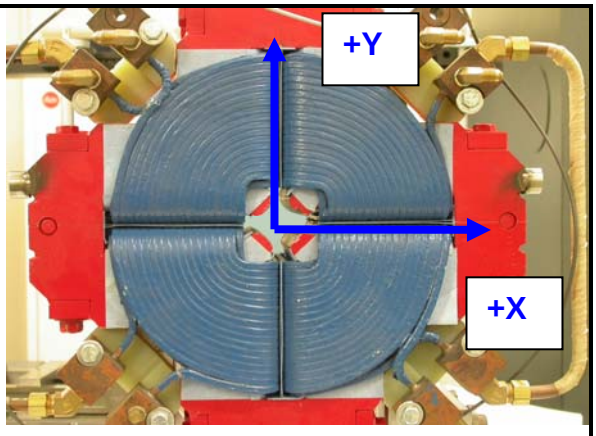
- Mid-Plane of the magnet

"X" & "Y" Zero

- Geometric Axis of the Poles of the magnet.



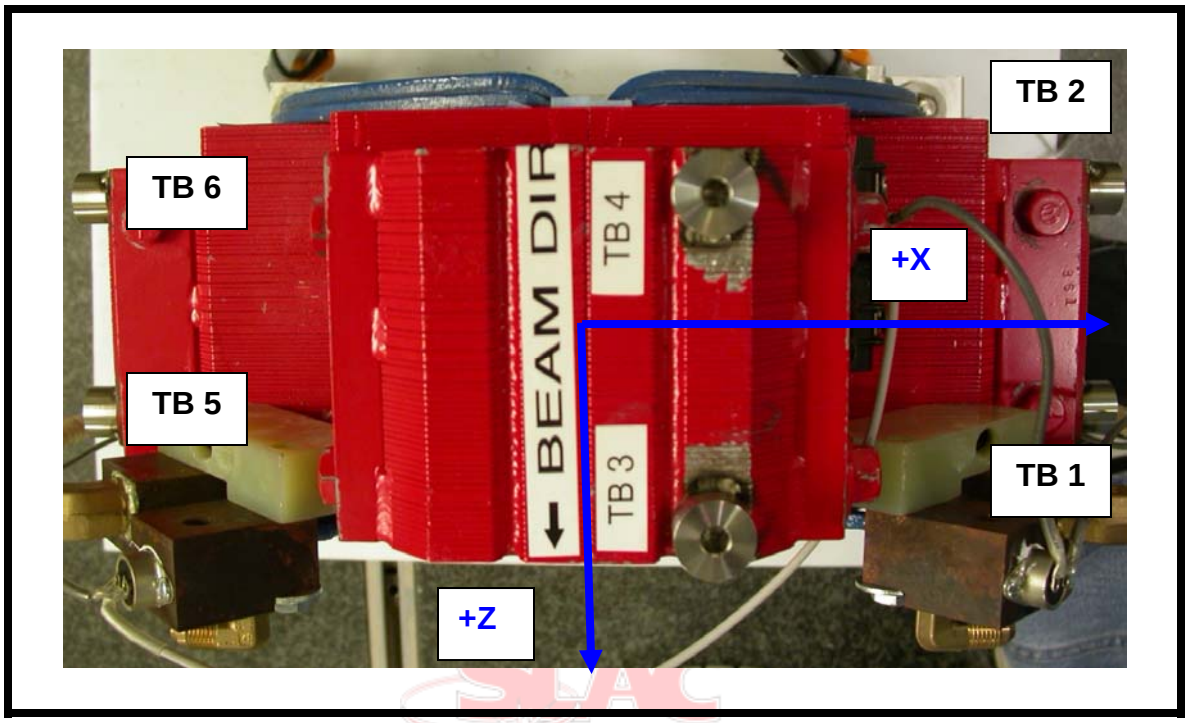
Side View



Front View

Tooling Ball Measurements/Locations

Top of magnet; view from “+Y”



Tooling Ball	FORM	DIAMETER	X	Y	Z
TB 1	0.00080	0.49254	8.22814	1.18355	1.75159
TB 2	0.00006	0.50006	8.23325	1.14889	-1.30819
TB 3	0.00005	0.50001	1.13435	8.24412	1.71933
TB 4	0.00003	0.50003	1.16048	8.25551	-1.30231
TB 5	0.00009	0.49987	-8.24721	1.15478	1.74813
TB 6	0.00007	0.49986	-8.23914	1.14125	-1.33868

Pole Distances

Pole	+Z side	-Z side	Δ
A-C	1.08821	1.08954	0.00133
B-D	1.08457	1.08955	0.00498

*** Points collected approx. 0.125 from each end
*** Picture to the left is looking down from +Z