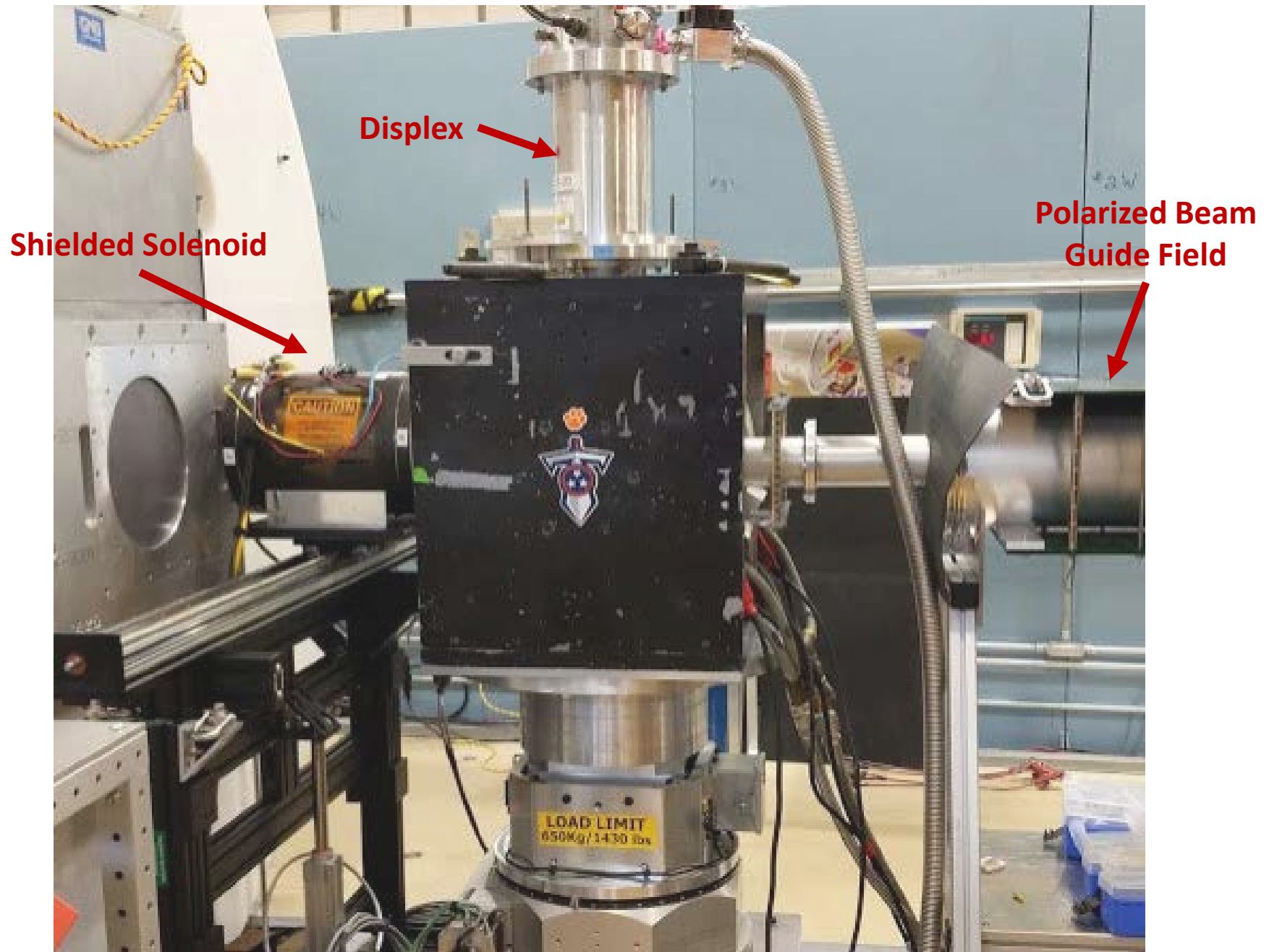


# High Field Setup

$\leq 1.6\text{T}$

Rev. 11/18/19

Primary  
equipment:  
Titan  
Magnet



# Setup Configuration

- Titan Magnet
  - Huber: 5 ¾” spacers below top plate;
  - Magnet mumetal 3.75” from solenoid
  - Requires in-house water cooling and 65 W power supply
    - Water cooling order: **supply-> power supply in -> power supply out-> magnet (the two in/out ports are interchangeable) -> return**
    - Power supply is controlled using adam2041 voltage supply. Maximum voltage of 0.79 produces 79.8% output of 65 W power supply and  $\approx 1.53$  Tesla in Titan magnet
- $^3\text{He}$  Shielded Solenoid:
  - Solenoid cradle: 2 rows (1.1”) from downstream opt. bench edge
  - Solenoid horizontal translation: motor #70
  - Solenoid vertical translation: motor #67; Beam ht (ctr): 49.125” from floor

# Calibration Curve (high field to low)

Voltage (adam4021)	% on 65W P.S.	Magnetic field
7.8	79.8	15.3 kG (1.53 Tesla)
7.4	75.7	15.0 kG (1.50 Tesla)
3.8	38.7	9.9 kG
3.7	37.6	9.7 kG
3.5	35.6	9.0 kG
2.0	20.2	5.3 kG
1.9	19.1	4.99 kG
1.0	9.9	2.64 kG
0.95	9.3	2.49 kG
0.9	8.9	2.40 kG
0.4	3.7	1.04 kG
0.2	1.6	0.51 kG
0.1	0.6	250 G
0.05	0.1	113 G
0.045	--	101 G
0.04	--	88 G
0	--	73 G
-0.06 (requires manual reverse)	--	26 G

