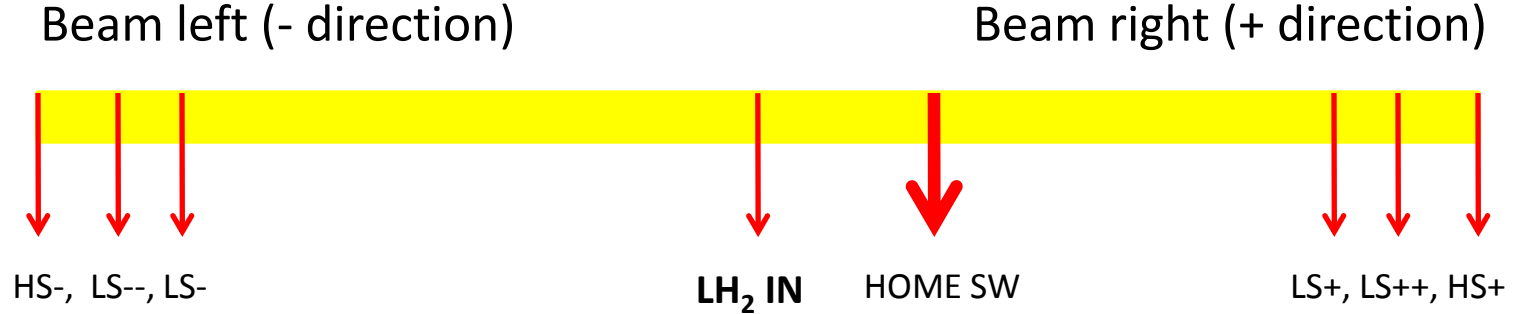


Horizontal motion axis



- Phytron is a 200 steps/revolution motor, rated for 10^{-11} torr, 4 K and 10^6 Rad, holding torque 90 oz.in; brake has 287.5 oz.in
- Motor software control offers 1/8 step motion resolution, meaning 1600 steps in software is a 2π motor shaft rotation
- Horizontal table has 10 mm travel for a full rotation of its screw, total range of travel 100 mm
- Motor motion goes through a 1/10 gear reducer to the table's screw

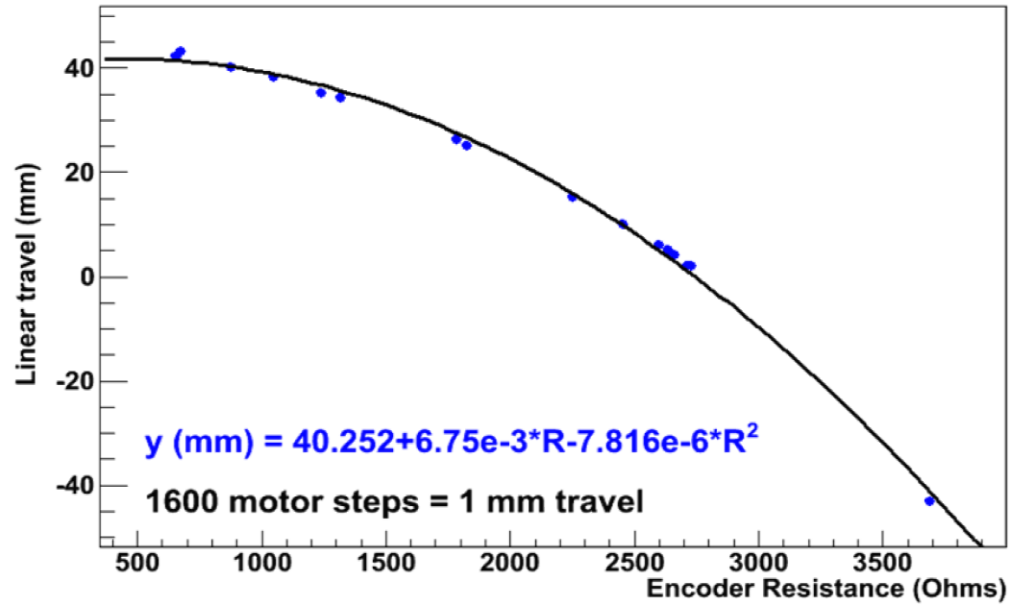
1600 motor steps = 1 mm table travel

40640 motor steps = 1 inch table travel

- Full range of travel from LS+ to LS- is 86.4 mm
- Home Switch is on the + side, actuated between 11.43 mm and 14.55 mm or 5000 steps
- Actual values for Position 1 and Position2 from Survey
- Reproducibility of positions from Survey (from encoder is about 0.25 mm)
- “Home” routine should go to LS-, then Home Switch, then LH2 (Home SW should be hit from the same direction)

Position	Absolute axis steps	Encoder (Ω)	Metric units (mm)
Hard Stop +			48.3
LS++			47.0
LS+	196331	674.1	43.2
Position 1			39.88
Home Switch	145500 to 150500	2390 to 2300	11.43 to 14.55
LH ₂	127212	2797.9	0
Position 2			-39.88
LS-	58093	3689.4	-43.2
LS--			-47.0
Hard Stop -			-48.3

Phytron motor encoder calibration



Temperature for motor and brake

