

Lifter VI

VIBODHA B

UOC, UVA

Updates on lifter

- Relationship between the ADC voltage vs Step count $Y = - 4009.5 X + 26560$
- This trend line was calculated by moving the lifter up and down 8 times.
- X : ADC voltage , Y : Step count derived from ADC value

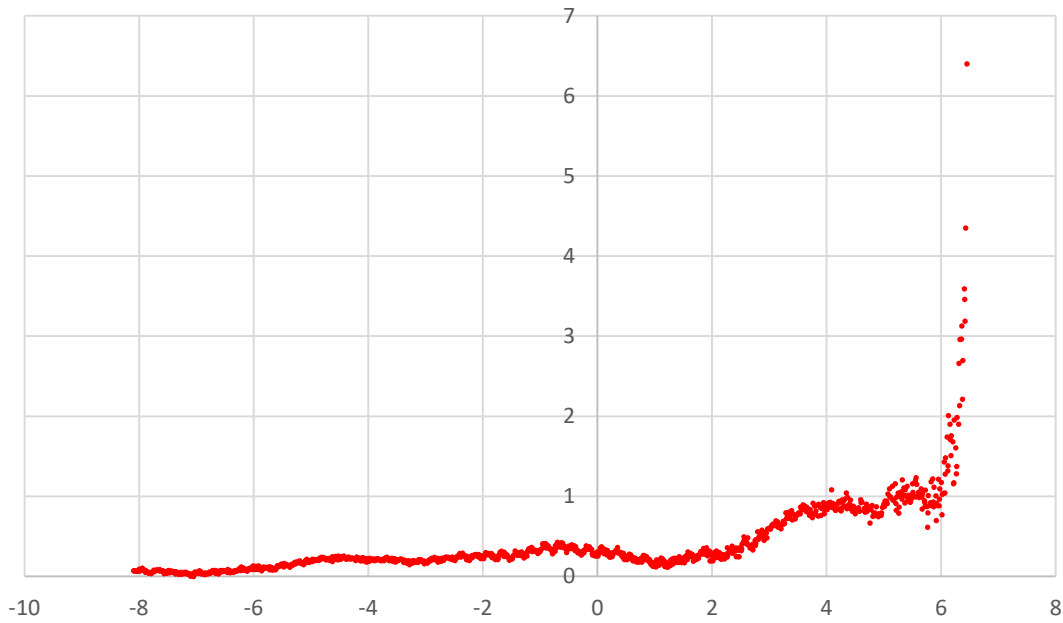
ADC (X)	Step count (S)	Estimated (Y)	Difference (Y-S)	Difference %

$$Difference\% = \frac{|Y - S|}{S} \times 100$$

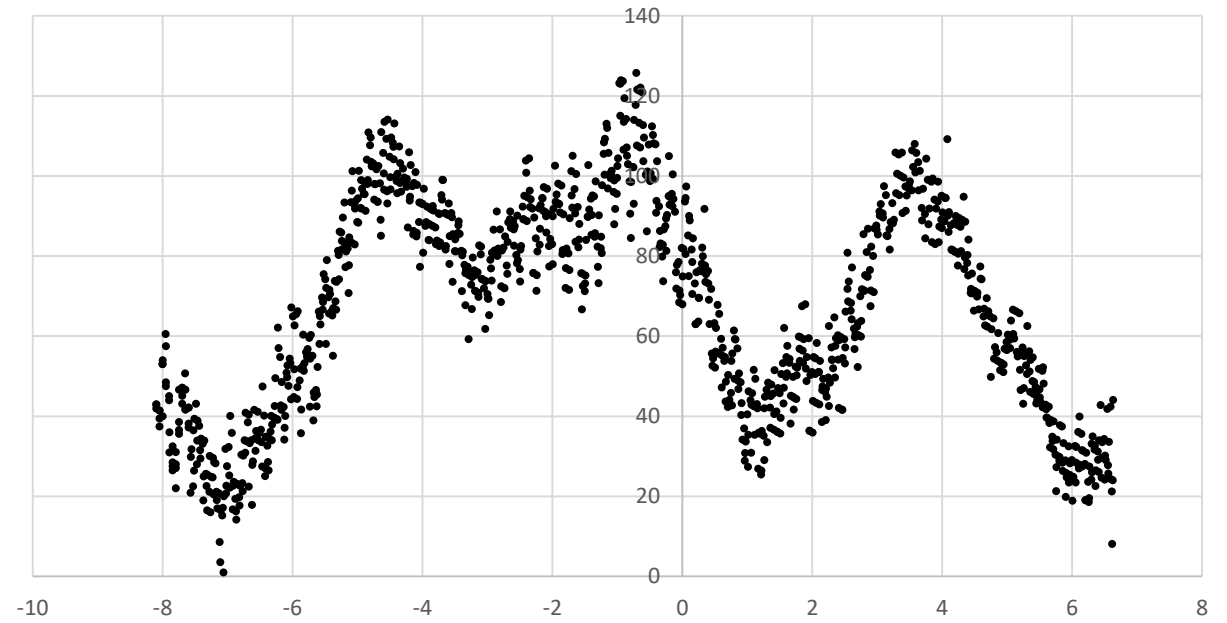
Data set 1

Lifter movement : Top ---- > Bottom

Difference%



Difference

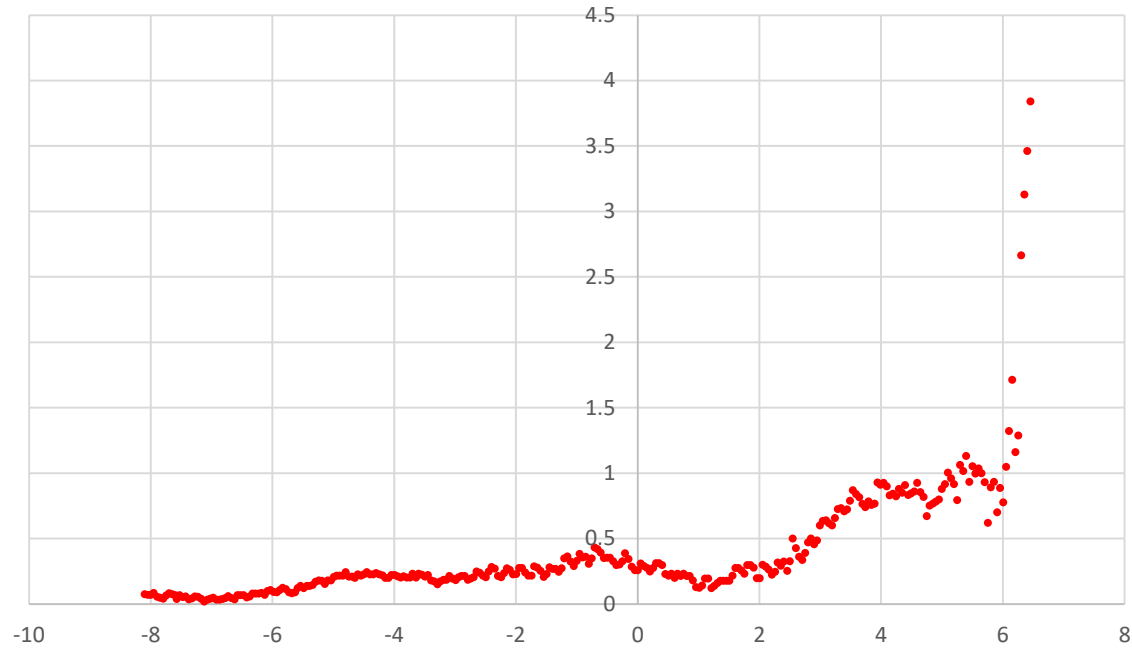


Lifter Top

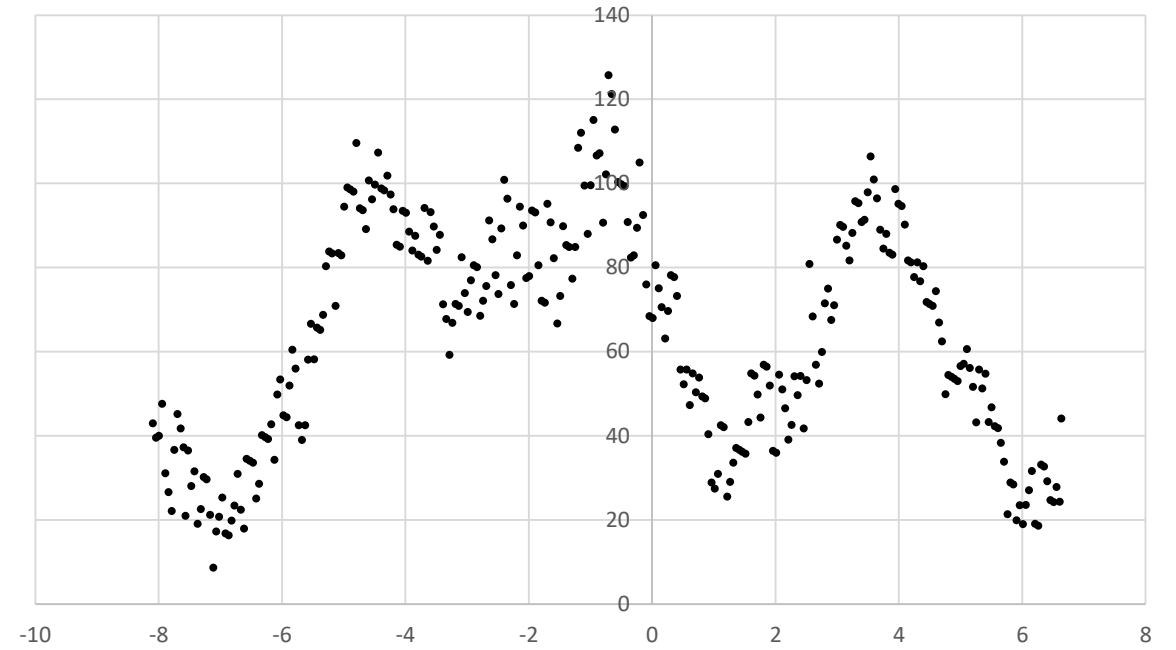
Data set 2

Lifter movement : Top ---- > Bottom

Difference%



Step Change

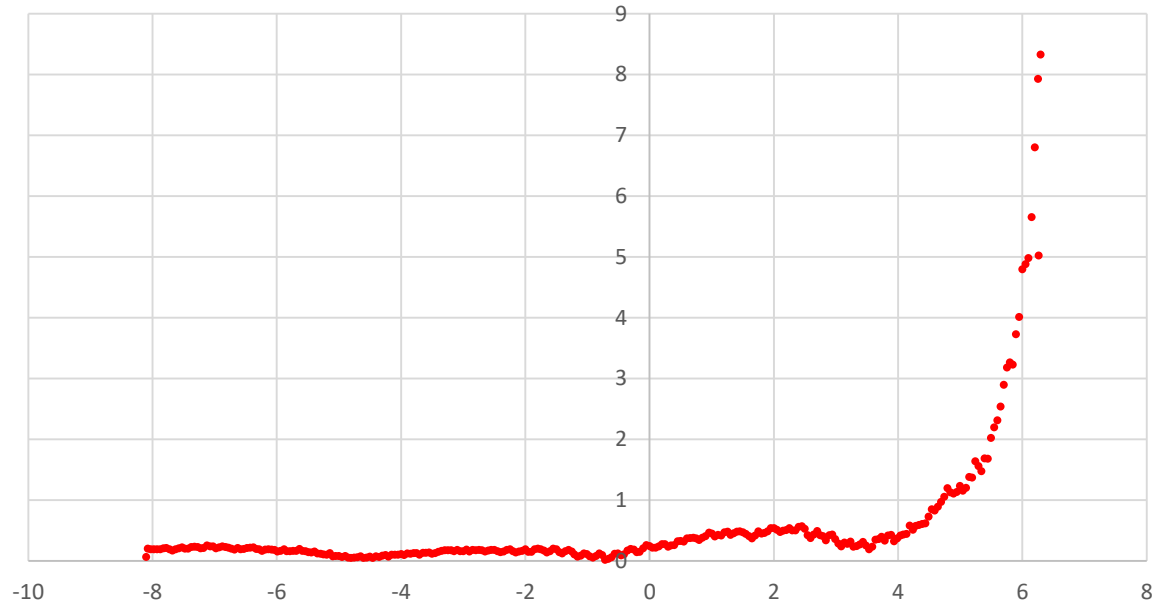


Lifter Top

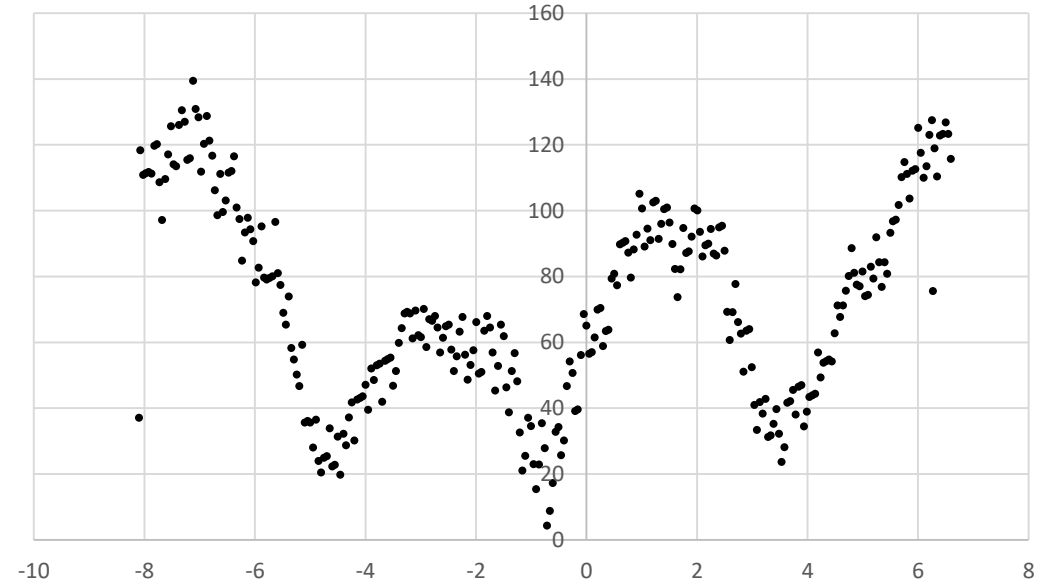
Data set 3

Lifter movement : Bottom ---- > Top

Difference%



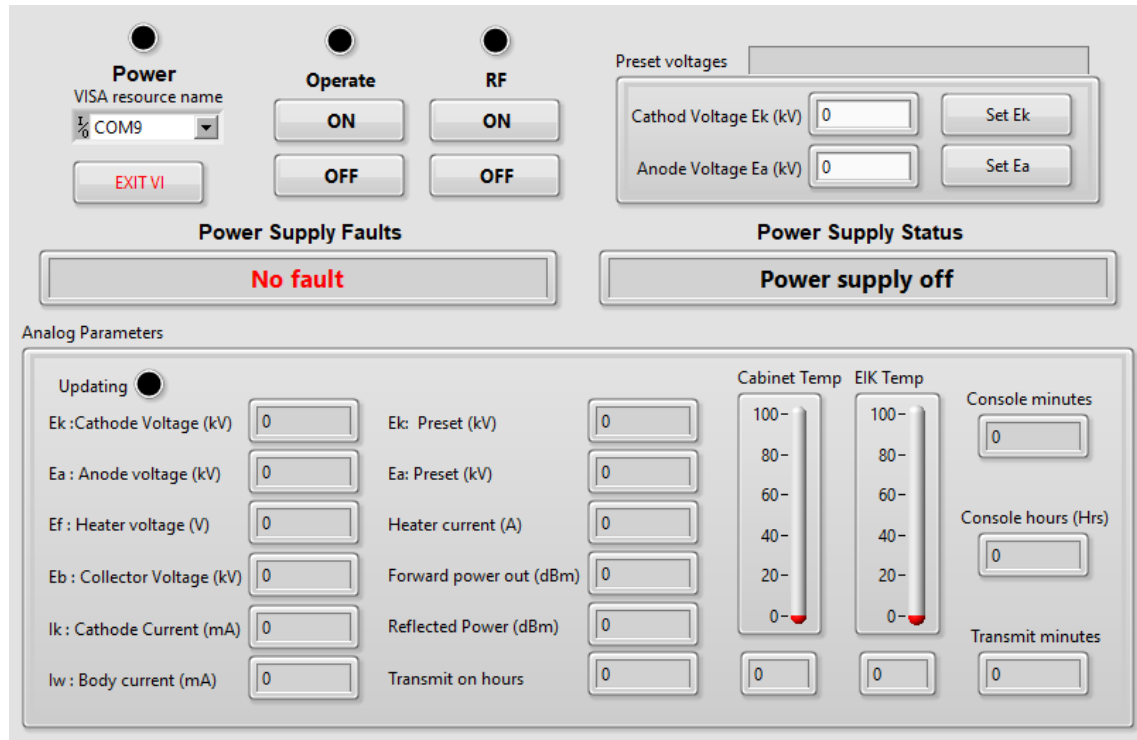
Step Change



Lifter Top

I think the repeated pattern in the step difference plot is due to a synchronization issue when recording the ADC

I will re-record the ADC and step counts



Option to change voltages
Need to go through

Thank You