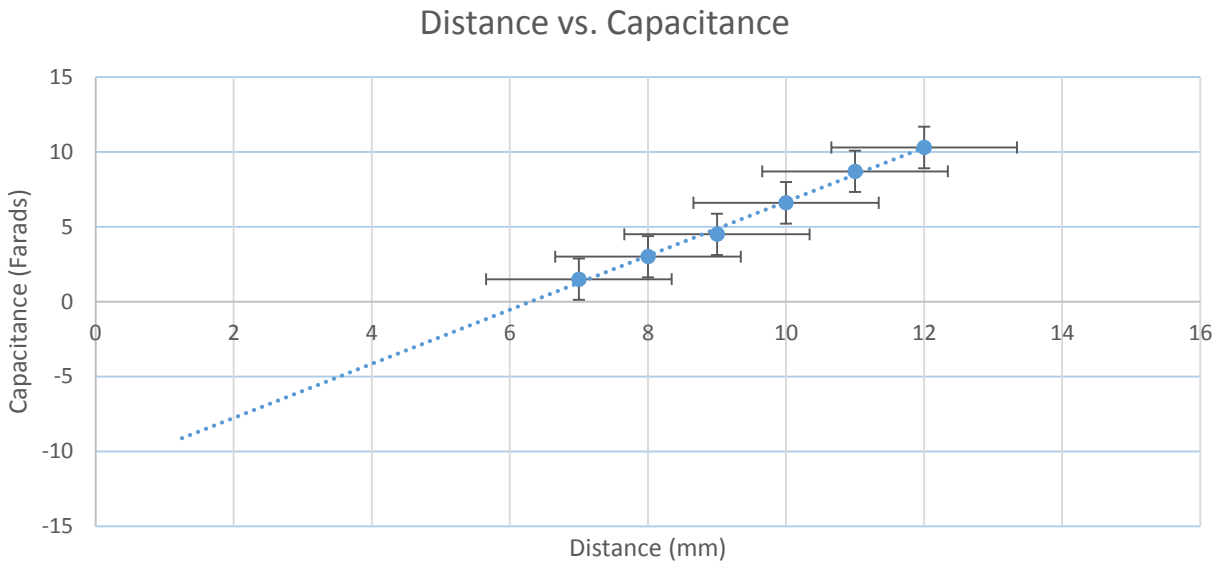
DATA	Distance (mm) x	Capacitance (Farads) y	1/r (1/Distance)	C/(3.14*Distance*Distance)
	7	1.5	0.142857143	0.009749123
	8	3	0.125	0.014928344
	9	4.5	0.111111111	0.017692852
	10	6.6	0.1	0.021019108
	11	8.7	0.090909091	0.022898352
	12	10.3	0.083333333	0.022779547

Fit ->	1.252380952

LINEST OUTPUT			
Slope ->	1.805714286	-11.38761905	<- y intercept
Uncertainty ->	0.060090634	0.58001212	<- uncert. y-int
R^2 ->	0.995589824	0.251377159	<- Variance
Fisher ->	902.9932178	4	
	57.06057143	0.252761905	



A1. Yes, the values are reasonable. This is further reinforced by the R^2 value approaching 1.

A2. I calculated the average capacitance to be 1.76. | 1.76 – 1.80 | = 0.4 = t . I suspect that the error comes from environmental electro-magnetic “noise”. I also suspect that the data might be a little more accurate if the distances were shifted from 6mm – 11mm. The C/Area formula data suggests that some kind of “local max” is reached at approximately 11mm . Is this the limit of the “Gaussian surface”?

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