

Catching the Perfect SAR Waves: Mathematical Model

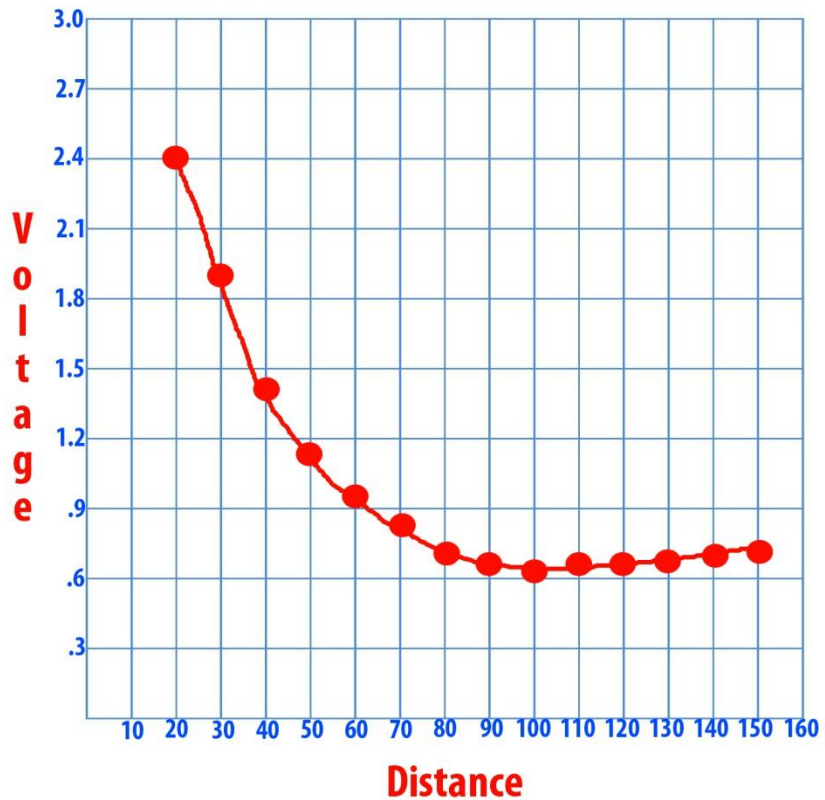
ANSWER KEY

Instructions: Use the table and graph provided to record your results when calibrating your radar system. Represent the distance as a function of voltage. It is recommended that you verify your voltage output more than once to ensure accurate readings. Readings from sensor to sensor may vary slightly.

Radar Position: Horizontal



<i>Distance (cm)</i>	<i>Voltage (V)</i>
20	2.40
30	1.90
40	1.45
50	1.15
60	0.98
70	0.86
80	0.79
90	0.75
100	0.73
110	0.75
120	0.75
130	0.77
140	0.78
150	0.79



Radar Position: Vertical



<i>Distance (cm)</i>	<i>Voltage (V)</i>
20	2.37
30	1.85
40	1.62
50	1.43
60	1.02
70	0.81
80	0.66
90	0.54
100	0.45
110	0.40
120	0.39
130	0.41
140	0.43
150	0.47

