Robot Actual Location			6.75	3.50			3.25	7.33		

Generate the Test Vectors as Viewed by the Camera (a

Camera Location			Delta Location		Polar Location		Delta Location		Polar Location		Delta Location	
	X	Y	X2	Y2	D	Θ	X2	Y2	R	Θ	X2	Y2
A	-1	-1	7.75	4.50	8.9617	14.85861	4.25	8.33	9.3515	-17.9691	7.00	9.00
B	-1	9	7.75	5.50	9.5033	9.637538	4.25	1.67	4.5663	23.54809	7.00	1.00
C	9	9	2.25	5.50	5.9424	-22.75098	5.75	1.67	5.9876	28.80486	3.00	1.00
D	9	-1	2.25	4.50	5.0312	-18.43495	5.75	8.33	10.122	-10.3836	3.00	9.00

Result from Camera using Pol

X= D * sin(Θ + 45) Y= D * c

Camera Location			Viewed Location		CONFIRM Robot Actual Location		Viewed Location		CONFIRM Robot Actual Location		Viewed Location	
	X	Y	X2	Y2	Xr	Yr	X2	Y2	Xr	Yr	X2	Y2
A	-1	-1	7.75	4.50	6.75	3.50	4.25	8.33	3.25	7.33	7.00	9.00
B	-1	9	7.75	5.50	6.75	3.50	4.25	1.67	3.25	7.33	7.00	1.00
C	9	9	2.25	5.50	6.75	3.50	5.75	1.67	3.25	7.33	3.00	1.00
D	9	-1	2.25	4.50	6.75	3.50	5.75	8.33	3.25	7.33	3.00	9.00

6.00	**8.00**		**3.00**	**7.00**			**8.00**	**1.00**	

Polar Location		Delta Location		Polar Location		Delta Location		Polar Location	
R	**Θ**	**X2**	**Y2**	**R**	**Θ**	**X2**	**Y2**	**R**	**Θ**
11.402	-7.12502	4.00	8.00	8.9443	-18.4349	9.00	2.00	9.2195	32.47119
7.0711	36.8699	4.00	2.00	4.4721	18.43495	9.00	8.00	12.042	3.366461
3.1623	26.56505	6.00	2.00	6.3246	26.56505	1.00	8.00	8.0623	-37.875
9.4868	-26.5651	6.00	8.00	10	-8.1301	1.00	2.00	2.2361	-18.4349

lar Location
os(Θ + 45)

CONFIRM Robot Actual Location		Viewed Location		CONFIRM Robot Actual Location		Viewed Location		CONFIRM Robot Actual Location	
Xr	**Yr**	**X2**	**Y2**	**Xr**	**Yr**	**X2**	**Y2**	**Xr**	**Yr**
6.00	8.00	4.00	8.00	3.00	7.00	9.00	2.00	8.00	1.00
6.00	8.00	4.00	2.00	3.00	7.00	9.00	8.00	8.00	1.00
6.00	8.00	6.00	2.00	3.00	7.00	1.00	8.00	8.00	1.00
6.00	8.00	6.00	8.00	3.00	7.00	1.00	2.00	8.00	1.00