

appendix a  
**DMX 512 PROTOCOL**

The RoboScan 812 supports tracking and vector mode. In tracking mode, speed is determined by the controller's fade time. In vector mode, speed is determined by a value programmed on a separate DMX channel. *For smooth movement in vector mode, the controller's fade time must be set to 0, i.e., the position must bump from the current value to the next.* If the RoboScan 812 is set to run vector mode, tracking mode can be enabled by programming the speed channels to 0.

DMX Channel	DMX Values	Percent	Effect
1	0 - 10	0 - 4	<b>Strobe, SA, Reset, Lamp ON</b>
	11 - 74	4 - 29	No strobe
	75 - 138	29 - 54	Gobo strobe (fast → slow)
	139 - 170	55 - 67	Color strobe (fast → slow)
	171 - 202	67 - 79	Remote Auto trig
	203 - 235	80 - 92	Remote Music trig
	236 - 255	93 - 100	Reset fixture Lamp power ON
2	0 - 15	0 - 6	<b>Color</b> black → white
	15 - 30	6 - 12	white → color 1
	30 - 45	12 - 18	color 1 → color 2
	45 - 60	18 - 24	color 2 → color 3
	60 - 75	24 - 29	color 3 → color 4
	75 - 90	29 - 35	color 4 → color 5
	90 - 105	35 - 41	color 5 → color 6
	105 - 120	41 - 47	color 6 → color 7
	120 - 135	47 - 53	color 7 → color 8
	135 - 150	53 - 59	color 8 → color 9
	150 - 165	59 - 65	color 9 → color 10
	165 - 180	65 - 71	color 10 → color 11
	180 - 184	71 - 72	color 11
	185 - 189	73 - 74	color 10
	190 - 194	75 - 76	color 9
	195 - 199	76 - 78	color 8
	200 - 204	78 - 80	color 7
	205 - 209	80 - 82	color 6
	210 - 214	82 - 84	color 5
	215 - 219	84 - 86	color 4
	220 - 224	86 - 88	color 3
	225 - 229	88 - 90	color 2
	230 - 234	90 - 92	color 1
	235 - 239	92 - 94	white
240 - 255	94 - 100	black	

3	0 - 15 15 - 30 30 - 45 45 - 60 60 - 75 75 - 90 90 - 105 105 - 120 120 - 135 135 - 150 150 - 165 165 - 180  180 - 184 185 - 189 190 - 194 195 - 199 200 - 204 205 - 209 210 - 214 215 - 219 220 - 224 225 - 229 230 - 234 235 - 239 240 - 255	0 - 6 6 - 12 12 - 18 18 - 24 24 - 29 29 - 35 35 - 41 41 - 47 47 - 53 53 - 59 59 - 65 65 - 71  71 - 72 73 - 74 75 - 76 76 - 78 78 - 80 80 - 82 82 - 84 84 - 86 86 - 88 88 - 90 90 - 92 92 - 94 94 - 100	<b>Gobo</b> closed → open open → gobo 1 gobo 1 → gobo 2 gobo 2 → gobo 3 gobo 3 → gobo 4 gobo 4 → gobo 5 gobo 5 → gobo 6 gobo 6 → gobo 7 gobo 7 → gobo 8 gobo 8 → gobo 9 gobo 9 → gobo 10 gobo 10 → gobo 11  gobo 11 gobo 10 gobo 9 gobo 8 gobo 7 gobo 6 gobo 5 gobo 4 gobo 3 gobo 2 gobo 1 open closed
4	0 127 255	0 50 100	<b>Pan</b> Max Left Neutral Max Right
5	0 127 255	0 50 100	<b>Tilt</b> Max Up Neutral Max Down
6	0 1 - 255	0 1 - 100	<b>Movement Speed (vector mode only)</b> Tracking mode enabled Speed (fast → slow)
7	0 1 - 255	0 1 - 100	<b>Color / Gobo speed (vector mode only)</b> Tracking mode enabled Speed (fast → slow)