

Robin CycBar 15 - DMX protocol

Version 1.0

Mode 1 - Standard 16 bit, **Mode 2** - Reduced 8 bit, **Mode 3** - Extended 16bit +RGB pixels,

Mode 4 - Extended 16bit + RGBD pixels

Mode/Channel				Value	Function	Type of control
1	2	3	4			
1	1	1	1	0-19	Special functions Reserved <i>To activate following functions , stop in DMX value for at least 3 sec. and shutter must be closed at least 3 sec. (Shutter channel 14/10 must be at range of 0-31 DMX). Corresponding menu items are temporarily overrided</i>	
				20-24	Display On	Step
				25-29	Display Off	step
				30-39	RGBW colour mixing mode	step
				40-49	CMY colour mixing mode	step
				50-59	Colour calibration mode On	step
				60-69	Colour calibration mode Off	step
				70-89	Reserved	
				90-99	Dimmer curve: linear	step
				100-109	Dimmer curve: square law	step
				110-119	White counting On	step
				120-129	White counting Off	step
				130-255	Reserved	
2	2	2	2	0-255	Red (Cyan) coarse - all pixels Red LEDs saturation control (0-100%)	proportional
3	-	3	3	0-255	Red (Cyan) fine - all pixels Red LEDs saturation fine control min.—>max.	proportional
4	3	4	4	0-255	Green (Magenta) coarse - all pixels Green LEDs saturation control (0-100%)	proportional
5	-	5	5	0-255	Green (Magenta) fine - all pixels Green LEDs saturation fine control min.—>max.	proportional
6	4	6	6	0-255	Blue (Yellow) coarse - all pixels Blue LEDs saturation control (0-100%)	proportional
7	-	7	7	0-255	Blue (Yellow) fine - all pixels Blue LEDs saturation fine control min.—>max.	proportional
8	5	8	8	0-255	White coarse (RGBW mode only) - all pixels White LEDs saturation control (0-100%)	proportional
9	-	9	9	0-255	White fine (RGBW mode only) - all pixels White LEDs saturation fine control min.—>max.	proportional
10	6	10	10	0	CTO (All pixels) No function Colour temperature correction	step proportional
				1-255		
11	7	11	11	0	Virtual colour wheel (All pixels) No function	step

				1-2 3 4-5 6 7-9 10-12 13-15 16 17-55 56 57 - 95 96 97 – 134 135 136 - 174 175 176 -214 215 216 - 246 247 248-251 252-255	White 2700 K White 2700 K (tungsten emulation)* White 3200 K White 3200 K (tungsten emulation)* White 4200 K White 5600 K White 8000 K Blue (Blue=full, Red+Green+White=0) Red=0, Green→up,Blue =full, White=0 Light Blue (Red=0, Green=full, Blue =full, white=0) Red=0, Green=full, Blue→down, White=0 Green (Red=0, Green=full, Blue =0, White=0) Red→up, Green=full, Blue=0, White=0 Yellow (Red=full, Green=full, Blue=0,White=0) Red=full, Green→down, Blue=0, White=0 Red (Red=full, Green=0, Blue=0, White=0) Red=full, Green=0, Blue→up, White=0 Magenta (Red=full, Green=0, Blue=full, White=0) Red→down, Green=0, Blue=full, White=0 Blue (Red=0, Green=0, Blue=full, White=0) Rainbow effect(with fade time) from min.->max. speed Rainbow effect(without fade time)from min.->max.speed	step step step step step step step proportional step proportional step proportional step proportional step proportional step proportional step proportional step proportional
12	8	12	12	0-2 3-4 5-6 : 181-182 183-255	Pixel effects (see table below DMX chart) No function Effect 1 Effect 2 : Effect 90 Reserved	step step : step
13	9	13	13	0-63 64-127 128-191 192-255	Pixel effects speed Speed from min. →max. without fade time Speed from max. →min. without fade time (op. direction) Speed from min. →max. with fade time Speed from max. →min. with fade time (op. direction)	proportional proportional proportional proportional
14	10	14	14	0-31 32-63 64-95 96-127 128-143 144-159 160-191 192-223 224-255	<u>Shutter/ Strobe (All pixels)</u> Shutter closed Shutter open Strobe-effect from slow to fast Shutter open Opening pulses in sequences slow--> fast Closing pulses in sequences fast --> slow Shutter open Random strobe-effects from slow to fast Shutter open	step step proportional step proportional proportional step proportional step
15	11	15	15	0 - 255	<u>Dimmer coarse (All pixels)</u> Dimmer intensity from 0% to 100%	proportional
16	-	16	16	0 - 255	<u>Dimmer fine (All pixels)</u> Dimmer intensity from min.→max.	proportional

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-	-	17	17	0-255	Red pixel 1 Red LED saturation control (0-100%)	proportional
-	-	18	18	0-255	Green pixel 1 Green LED saturation control (0-100%)	proportional
-	-	19	19	0-255	Blue pixel 1 Blue LED saturation control (0-100%)	proportional
-	-	-	20	0-255	Dimmer 1 Dimmer intensity from 0% to 100%	proportional
-	-	20	21	0-255	Red pixel 2 Red LED saturation control (0-100%)	proportional
-	-	21	22	0-255	Green pixel 2 Green LED saturation control (0-100%)	proportional
-	-	22	23	0-255	Blue pixel 2 Blue LED saturation control (0-100%)	proportional
-	-	-	24	0-255	Dimmer 2 Dimmer intensity from 0% to 100%	proportional
-	-	23	25	0-255	Red pixel 3 Red LED saturation control (0-100%)	proportional
-	-	24	26	0-255	Green pixel 3 Green LED saturation control (0-100%)	proportional
-	-	25	27	0-255	Blue pixel 3 Blue LED saturation control (0-100%)	proportional
-	-	-	28	0-255	Dimmer 3 Dimmer intensity from 0% to 100%	proportional
-	-	26	29	0-255	Red pixel 4 Red LED saturation control (0-100%)	proportional
-	-	27	30	0-255	Green pixel 4 Green LED saturation control (0-100%)	proportional
-	-	28	31	0-255	Blue pixel 4 Blue LED saturation control (0-100%)	proportional
-	-	-	32	0-255	Dimmer 4 Dimmer intensity from 0% to 100%	proportional
-	-	29	33	0-255	Red pixel 5 Red LED saturation control (0-100%)	proportional
-	-	30	34	0-255	Green pixel 5 Green LED saturation control (0-100%)	proportional
-	-	31	35	0-255	Blue pixel 5 Blue LED saturation control (0-100%)	proportional
-	-	-	36	0-255	Dimmer 5 Dimmer intensity from 0% to 100%	proportional

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-	-	32	37	0-255	Red pixel 6 Red LED saturation control (0-100%)	proportional
-	-	33	38	0-255	Green pixel 6 Green LED saturation control (0-100%)	proportional
-	-	34	39	0-255	Blue pixel 6 Blue LED saturation control (0-100%)	proportional
-	-	-	40	0-255	Dimmer 6 Dimmer intensity from 0% to 100%	proportional
-	-	35	41	0-255	Red pixel 7 Red LED saturation control (0-100%)	proportional
-	-	36	42	0-255	Green pixel 7 Green LED saturation control (0-100%)	proportional
-	-	37	43	0-255	Blue pixel 7 Blue LED saturation control (0-100%)	proportional
-	-	-	44	0-255	Dimmer 7 Dimmer intensity from 0% to 100%	proportional
-	-	38	45	0-255	Red pixel 8 Red LED saturation control (0-100%)	proportional
-	-	39	46	0-255	Green pixel 8 Green LED saturation control (0-100%)	proportional
-	-	40	47	0-255	Blue pixel 8 Blue LED saturation control (0-100%)	proportional
-	-	-	48	0-255	Dimmer 8 Dimmer intensity from 0% to 100%	proportional
-	-	41	49	0-255	Red pixel 9 Red LED saturation control (0-100%)	proportional
-	-	42	50	0-255	Green pixel 9 Green LED saturation control (0-100%)	proportional
-	-	43	51	0-255	Blue pixel 9 Blue LED saturation control (0-100%)	proportional
-	-	-	52	0-255	Dimmer 9 Dimmer intensity from 0% to 100%	proportional
-	-	44	53	0-255	Red pixel 10 Red LED saturation control (0-100%)	proportional
-	-	45	54	0-255	Green pixel 10 Green LED saturation control (0-100%)	proportional
-	-	46	55	0-255	Blue pixel 10 Blue LED saturation control (0-100%)	proportional
-	-	-	56	0-255	Dimmer 10 Dimmer intensity from 0% to 100%	proportional

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-	-	47	57	0-255	Red pixel 11 Red LED saturation control (0-100%)	proportional
-	-	48	58	0-255	Green pixel 11 Green LED saturation control (0-100%)	proportional
-	-	49	59	0-255	Blue pixel 11 Blue LED saturation control (0-100%)	proportional
-	-	-	60	0-255	Dimmer 11 Dimmer intensity from 0% to 100%	proportional
-	-	50	61	0-255	Red pixel 12 Red LED saturation control (0-100%)	proportional
-	-	51	62	0-255	Green pixel 12 Green LED saturation control (0-100%)	proportional
-	-	52	63	0-255	Blue pixel 12 Blue LED saturation control (0-100%)	proportional
-	-	-	64	0-255	Dimmer 12 Dimmer intensity from 0% to 100%	proportional
-	-	53	65	0-255	Red pixel 13 Red LED saturation control (0-100%)	proportional
-	-	54	66	0-255	Green pixel 13 Green LED saturation control (0-100%)	proportional
-	-	55	67	0-255	Blue pixel 13 Blue LED saturation control (0-100%)	proportional
-	-	-	68	0-255	Dimmer 13 Dimmer intensity from 0% to 100%	proportional
-	-	56	69	0-255	Red pixel 14 Red LED saturation control (0-100%)	proportional
-	-	57	70	0-255	Green pixel 14 Green LED saturation control (0-100%)	proportional
-	-	58	71	0-255	Blue pixel 14 Blue LED saturation control (0-100%)	proportional
-	-	-	72	0-255	Dimmer 14 Dimmer intensity from 0% to 100%	proportional
-	-	59	73	0-255	Red pixel 15 Red LED saturation control (0-100%)	proportional
-	-	60	74	0-255	Green pixel 15 Green LED saturation control (0-100%)	proportional
-	-	61	75	0-255	Blue pixel 15 Blue LED saturation control (0-100%)	proportional
-	-	-	76	0-255	Dimmer 15 Dimmer intensity from 0% to 100%	proportional

*Halogen lamp effect during dimming

Colour channels priority:

1. Pixel effects channel
2. Virtual colour wheel channel
3. RGBW ALL PIXELS channels
4. If some colour from RGBW ALL PIXELS is set at 0 DMX, this colour can be set individually on each pixel 1-15 using R1G1B1....R15G15B15.

Channel Pixel effects

DMX value	Effect	Type of Control
0-2	No function	Step
3-4	Effect 1	Step
5-6	Effect 2	Step
7-8	Effect 3	Step
9-10	Effect 4	Step
11-12	Effect 5	Step
13-14	Effect 6	Step
15-16	Effect 7	Step
17-18	Effect 8	Step
19-20	Effect 9	Step
21-22	Effect 10	Step
23-24	Effect 11	Step
25-26	Effect 12	Step
27-28	Effect 13	Step
29-30	Effect 14	Step
31-32	Effect 15	Step
33-34	Effect 16	Step
35-36	Effect 17	Step
37-38	Effect 18	Step
39-40	Effect 19	Step
41-42	Effect 20	Step
43-44	Effect 21	Step
45-46	Effect 22	Step
47-48	Effect 23	Step
49-50	Effect 24	Step
51-52	Effect 25	Step
53-54	Effect 26	Step
55-56	Effect 27	Step
57-58	Effect 28	Step
59-60	Effect 29	Step
61-62	Effect 30	Step
63-64	Effect 31	Step
65-66	Effect 32	Step
67-68	Effect 33	Step
69-70	Effect 34	Step
71-72	Effect 35	Step
73-74	Effect 36	Step
75-76	Effect 37	Step
77-78	Effect 38	Step
79-80	Effect 39	Step
81-82	Effect 40	Step

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83-84	Effect 41	Step
85-86	Effect 42	Step
87-88	Effect 43	Step
89-90	Effect 44	Step
91-92	Effect 45	Step
93-94	Effect 46	Step
95-96	Effect 47	Step
97-98	Effect 48	Step
99-100	Effect 49	Step
101-102	Effect 50	Step
103-104	Effect 51	Step
105-106	Effect 52	Step
107-108	Effect 53	Step
109-110	Effect 54	Step
111-112	Effect 55	Step
113-114	Effect 56	Step
115-116	Effect 57	Step
117-118	Effect 58	Step
119-120	Effect 59	Step
121-122	Effect 60	Step
123-124	Effect 61	Step
125-126	Effect 62	Step
127-128	Effect 63	Step
129-130	Effect 64	Step
131-132	Effect 65	Step
133-134	Effect 66	Step
135-136	Effect 67	Step
137-138	Effect 68	Step
139-140	Effect 69	Step
141-142	Effect 70	Step
143-144	Effect 71	Step
145-146	Effect 72	Step
147-148	Effect 73	Step
149-150	Effect 74	Step
151-152	Effect 75	Step
153-154	Effect 76	Step
155-156	Effect 77	Step
157-158	Effect 78	Step
159-160	Effect 79	Step
161-162	Effect 80	Step
163-164	Effect 81	Step
165-166	Effect 82	Step
167-168	Effect 83	Step
169-170	Effect 84	Step
171-172	Effect 85	Step
173-174	Effect 86	Step
175-176	Effect 87	Step
177-178	Effect 88	Step
179-180	Effect 89	Step
181-182	Effect 90	Step
183-255	Reserved	