

## DMX protocol

Robin SPIIDER - DMX protocol							
Version: 1.1 <b>Mode 1</b> - 3-zones, <b>Mode 2</b> -Basic, <b>Mode 3</b> -Advanced, <b>Mode 4</b> -Full RGB							
Mode/channel				DMX Value	Function	Type of control	
1	2	3	4				
1	1	1	1		<b>Pan (8 bit)</b>		
				0 - 255	Pan movement by 540° (128=default)		proportional
2	2	2	2		<b>Pan Fine (16 bit)</b>		
				0 - 255	Fine control of pan movement (0=default)		proportional
3	3	3	3		<b>Tilt (8 bit)</b>		
				0 - 255	Tilt movement by 230° (128=default)		proportional
4	4	4	4		<b>Tilt fine (16 bit)</b>		
				0 - 255	Fine control of tilt movement (0=default)		proportional
5	5	5	5		<b>Pan/Tilt speed , Pan/Tilt time</b>		
				0	Max. speed -tracking mode (0=default)		step
					<b>Pan/Tilt speed</b>		
				1 - 255	Speed from max. to min. (vector mode)		proportional
					<b>Pan/Tilt time</b>		
				1 - 255	Time from 0.1 s to 25.5 sec.		proportional
6	6	6	6		<b>Power/Special functions</b>		
				0-9	Reserved (0=default) <i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe” channel 53/27/31/31 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden).</i>		
				10-14	DMX input: Wired DMX		step
				15-19	DMX input: Wireless DMX *  * function is active only 10 seconds after switching the fixture on		step
				20-24	Graphic display ON		step
				25-29	Graphic display OFF		step
				30-34	RGBW colour mixing mode		step
				35-39	CMY colour mixing mode		step
				40-44	Pan/Tilt speed mode		step
				45 - 49	Pan/Tilt time mode		step
				50 -54	Blackout while pan/tilt moving		step
				55 -59	Disabled blackout while pan/tilt moving		step
				60 - 64	Dimmer curve-square law		step
				65 - 69	Dimmer curve-linear		step
				70 - 74	Fans mode: Auto		step
				75 - 79	Fans mode: High		step
				80-84	White point 8000K ON		step
				85-89	White point 8000K OFF		step
				90 -109	Reserved		
				110-114	Kling-Net On		step
				115-119	Kling-Net Off		step
				120-129	Reserved <i>To activate following functions, stop in DMX value for at least 3 seconds.</i>		
				130 - 139	Fixture reset (except pan/tilt)		
				140 - 149	Pan/Tilt reset		step
				150 - 159	Zoom reset		step
				160 - 169	Flower effect reset		step
				170-171	Tungsten effect simulation (750W) On **		step

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				172-173	Tungsten effect simulation (1000W) On **	step
				174-175	Tungsten effect simulation (1200W) On **	step
				176-177	Tungsten effect simulation (2000W) On **	step
				178-179	Tungsten effect simulation (2500W) On **	step
				180-181	Tungsten effect simulation Off	step
				182 - 199	Reserved	
				200 - 209	Total fixture reset	step
				210 - 255	Reserved	
<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>		<b>Virtual colour wheel</b>	
				0	No function (0=default)	step
				1-2	LEE 4 (Medium Bastard Amber)	step
				3-4	LEE 25 (Sunset Red)	step
				5-6	LEE 19 (Fire)	step
				7-8	LEE 26 (Bright Red)	step
				9-10	LEE 58 (Lavender)	step
				11-12	LEE 68 (Sky Blue)	step
				13-14	LEE 36 (Medium Pink)	step
				15-16	LEE 89 (Moss Green)	step
				17-18	LEE 88 (Lime Green)	step
				19-20	LEE 90 (Dark Yellow Green)	step
				21-22	LEE 49 (Medium Purple)	step
				23-24	LEE 52 (Light Lavender)	step
				25-26	LEE 102 (Light Amber)	step
				27-28	LEE 103 (Straw)	step
				29-30	LEE 140 (Summer Blue)	step
				31-32	LEE 124 (Dark Green)	step
				33-34	LEE 106 (Primary Red)	step
				35-36	LEE 111 (Dark Pink)	step
				37-38	LEE 115 (Peacock Blue)	step
				39-40	LEE 126 (Mauve)	step
				41-42	LEE 117 (Steel Blue)	step
				43-44	LEE 118 (Light Blue)	step
				45-46	LEE 122 (Fern Green)	step
				47-48	LEE 182 (Light Red)	step
				49-50	LEE 121 (LEE Green)	step
				51-52	LEE 128 (Bright Pink)	step
				53-54	LEE 131 (Marine Blue)	step
				55-56	LEE 132 (Medium Blue)	step
				57-58	LEE 134 (Golden Amber)	step
				59-60	LEE 135 (Deep Golden Amber)	step
				61-62	LEE 136 (Pale Lavender)	step
				63-64	LEE 137 (Special Lavender)	step
				65-66	LEE 138 (Pale Green)	step
				67-68	LEE 798 (Chrysalis Pink)	step
				69-70	LEE 141 (Bright Blue)	step
				71-72	LEE 147 (Apricot)	step
				73-74	LEE 148 (Bright Rose)	step
				75-76	LEE 152 (Pale Gold)	step
				77-78	LEE 154 (Pale Rose)	step
				79-80	LEE 157 (Pink)	step

## DMX protocol

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				81-82	LEE 143 (Pale Navy Blue)	step
				83-84	LEE 162 (Bastard Amber)	step
				85-86	LEE 164 (Flame Red)	step
				87-88	LEE 165 (Daylight Blue)	step
				89-90	LEE 169 (Lilac Tint)	step
				91-92	LEE 170 (Deep Lavender)	step
				93-94	LEE 172 (Lagoon Blue)	step
				95-96	LEE 194 (Surprise Pink)	step
				97-98	LEE 180 (Dark Lavender)	step
				99-100	LEE 181 (Congo Blue)	step
				101-102	LEE 197 (Alice Blue)	step
				103-104	LEE 201 (Full C.T. Blue)	step
				105-106	LEE 202 (Half C.T. Blue)	step
				107-108	LEE 203 (Quarter C.T. Blue)	step
				109-110	LEE 204 (Full C.T. Orange)	step
				111-112	LEE 219 (Fluorescent Green)	step
				113-114	LEE 206 (Quarter C.T. Orange)	step
				115-116	LEE 247 (LEE Minus Green)	step
				117-118	LEE 248 (Half Minus Green)	step
				119-120	LEE 281 (Three Quarter C.T. Blue)	step
				121-122	LEE 285 (Three Quarter C.T. Orange)	step
				123-124	LEE 352 (Glacier Blue)	step
				125-126	LEE 353 (Lighter Blue)	step
				127-128	LEE 507 (Madge)	step
				129-130	LEE 778 (Millennium Gold)	step
				131-132	LEE 793 (Vanity Fair)	step
				133-235	Reserved	
				236-245	Rainbow effect (with fade time) from slow-> fast	proportional
				246-255	Rainbow effect (without fade time) from slow-> fast	proportional
*	8	8	8		<b>Red/Cyan (8 bit)- all pixels***</b>	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	9	9		<b>Red/Cyan (16bit)- all pixels***</b>	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	9	10	10		<b>Green/Magenta (8 bit) - all pixels ***</b>	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	11	11		<b>Green/Magenta (16bit) - all pixels***</b>	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	10	12	12		<b>Blue/Yellow (8 bit) - all pixels ***</b>	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	13	13		<b>Blue/ Yellow (16bit)-all pixels***</b>	
				0 - 255	Colour saturation control - fine (255=default)	proportional
*	11	14	14		<b>White (8 bit) - all pixels</b>	
					<i>If RGBW mode is selected:</i>	
				0-255	Colour saturation control - coarse 0-100% (255=default)	proportional
					<i>If CMY mode is selected:</i>	
				0 - 255	No function	
*	*	15	15		<b>White (16 bit) - all pixels</b>	
				0 - 255	Colour saturation control - fine (255=default)	proportional
8	*	*	*		<b>Red/Cyan (8 bit) - zone 1***</b>	
				0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional

## DMX protocol

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
9	*	*	*	0 - 255	<b>Red/Cyan (16bit)- zone 1***</b> Colour saturation control - fine (255=default)	proportional
10	*	*	*	0 - 255	<b>Green/Magenta (8 bit) - zone 1***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
11	*	*	*	0 - 255	<b>Green/Magenta (16bit)- zone 1***</b> Colour saturation control - fine (255=default)	proportional
12	*	*	*	0 - 255	<b>Blue/Yellow (8 bit) - zone 1***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
13	*	*	*	0 - 255	<b>Blue/Yellow (16bit)- zone 1***</b> Colour saturation control - fine (255=default)	proportional
14	*	*	*	0-255 0 - 255	<b>White (8 bit) - zone 1</b> <i>If RGBW mode is selected:</i> Colour saturation control - coarse 0-100% (255=default) <i>If CMY mode is selected:</i> No function	proportional
15	*	*	*	0 - 255	<b>White (16 bit) - zone 1</b> Colour saturation control - fine (255=default)	proportional
16	*	*	*	0 - 255	<b>Red/Cyan (8 bit) - zone 2***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
17	*	*	*	0 - 255	<b>Red/Cyan (16bit)- zone 2***</b> Colour saturation control - fine (255=default)	proportional
18	*	*	*	0 - 255	<b>Green/Magenta (8 bit) - zone 2***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
19	*	*	*	0 - 255	<b>Green/Magenta (16bit)- zone 2***</b> Colour saturation control - fine (255=default)	proportional
20	*	*	*	0 - 255	<b>Blue/Yellow (8 bit) - zone 2***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
21	*	*	*	0 - 255	<b>Blue/Yellow (16bit)- zone 2***</b> Colour saturation control - fine (255=default)	proportional
22	*	*	*	0-255 0 - 255	<b>White (8 bit) - zone 2</b> <i>If RGBW mode is selected:</i> Colour saturation control - coarse 0-100% (255=default) <i>If CMY mode is selected:</i> No function	proportional
23	*	*	*	0 - 255	<b>White (16 bit) - zone 2</b> Colour saturation control - fine (255=default)	proportional
24	*	*	*	0 - 255	<b>Red/Cyan (8 bit) - zone 3***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
25	*	*	*	0 - 255	<b>Red/Cyan (16bit)- zone 3***</b> Colour saturation control - fine (255=default)	proportional
26	*	*	*	0 - 255	<b>Green/Magenta (8 bit) - zone 3***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
27	*	*	*	0 - 255	<b>Green/Magenta (16bit)- zone 3***</b> Colour saturation control - fine (255=default)	proportional
28	*	*	*	0 - 255	<b>Blue/Yellow (8 bit) - zone 3***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
29	*	*	*	0 - 255	<b>Blue/Yellow (16bit)- zone 3***</b> Colour saturation control - fine (255=default)	proportional
30	*	*	*		<b>White (8 bit) - zone 3</b> <i>If RGBW mode is selected:</i>	

DMX protocol

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				0-255 0 - 255	Colour saturation control - coarse 0-100% (255=default) <i>If CMY mode is selected:</i> No function	proportional
31	*	*	*	0 - 255	<b>White (16 bit) - zone 3</b> Colour saturation control - fine (255=default)	proportional
32	12	16	16		<b>CTC</b> <i>If function "White Point 8000K" is ON</i>	
				0-255	Col. temperature correction from 8000K to 2700K -for whites only (0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K) To get colour temperatures stated above, RGBW channels have to be set at the same value (e.g. 255DMX) or RGB=0 and White channel > 0 DMX (0=default) (To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel) <i>If function "White Point 8000K" is OFF</i>	proportional
33	13	17	17		<b>Colour Mix control</b> <i>The channel defines relation between color channels</i> <b><i>IF Flower effect is active, its colour channels always have priority!</i></b> <i>Global = Global Colours (RGBW, Virtual Colour Wheel)</i> <i>Pixel = Pixel Colours (RGB individual pixels or Kling-Net)</i>	
				0-9	Global colours (Global has priority)	
				10-19	Maximum mode (highest values have priority)	step
				20-29	Minimum mode (lowest values have priority)	step
				30-39	Multiply mode (multiply Global and Pixel)	step
				40-49	Addition mode (Global + Pixel) /45=default/	step
				50-59	Subtraction mode (Global – Pixel)	step
				60-69	Inverted Subtraction mode (Pixel – Global)	step
				70-79	Coloured background	step
				80-127	Reserved	
				128	Global colours only (Global has priority)	step
				129-254	Crossfade (crossfade between Global and Pixel)	proportional
				255	Pixel colours (Pixel has priority)	step
34	14	18	18		<b>Pixel effects</b>	
				0-2	No function (0=default)	
				3-4	Effect 1	step
				5-6	Effect 2	step
				:	:	:
				181-182	Effect 90	step
				183-255	Reserved	
35	15	19	19		<b>Pixel effects speed</b>	
				0-127	Speed from from min. to max. (0=default)	proportional
				128-255	Speed from max. to min. (opposite direction)	proportional
36	16	20	20		<b>Pixel effects fade</b>	
				0	Without fade time (0=default)	step
				1-255	Fade time from min. to max.	proportional
37	17	21	21		<b>Flower Effect</b>	
				0	Open position-without Flower Effect (0=default)	step
				1 - 127	Flower Effect forwards rotation from fast to slow	proportional
				128	Flower Effect -without rotation	step
				129-255	Backwards rotation from slow to fast	proportional

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
38	18	22	22	0 - 255	<b>Flower Effect - Red/Cyan (8 bit) ***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
39	19	23	23	0 - 255	<b>Flower Effect - Green/Magenta (8 bit) ***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
40	20	24	24	0 - 255	<b>Flower effect - Blue/Yellow (8 bit) ***</b> Colour saturation control - coarse 0-100% (255=default)	proportional
41	21	25	25	0-255 0 - 255	<b>Flower Effect - White (8 bit)</b> <i>If RGBW mode is selected:</i> Colour saturation control - coarse 0-100% (255=default) <i>If CMY mode is selected:</i> No function	proportional
42	22	26	26	0 1-2 3-4 5-6 : 119-120 121-255	<b>Flower Effect - colour macros</b> <i>(Flower Effect channel has to be set &gt; 0 DMX)</i> Open position - without macros (0=default) <i>(Flower effect colour macros have priority to RGBW colours/Virtual colour wheel, Flower effect colours )</i> Flower Effect colour macro 1 Flower Effect colour macro 2 Flower Effect colour macro 3 : Flower Effect colour macro 60 Reserved	step step step step
43	23	27	27	0 - 31 32 - 63 64 - 95 96 - 127 128 - 143 144 - 159 160 - 191 192 - 223 224 - 255	<b>Flower Effect - Shutter/ strobe</b> Shutter closed Shutter open (32=default) Strobe-effect from slow to fast Shutter open Opening pulse in sequences from slow to fast Closing pulse in sequences from fast to slow Shutter open Random strobe-effect from slow to fast Shutter open	step step proportional step proportional proportional step proportional step
44	24	28	28	0 - 255	<b>Flower Effect - Dimmer intensity (8 bit)</b> Dimmer intensity from 0% to 100% (0=default)	proportional
45	25	29	29	0-255	<b>Zoom</b> Zoom from max. to min.beam angle (128=default)	proportional
46	*	30	30	0-255	<b>Zoom - fine</b> Fine zooming (0=default)	proportional
47	26	31	31	0 - 31 32 - 63 64 - 95 96 - 127 128 - 143 144 - 159 160 - 191 192 - 223 224 - 255	<b>Shutter/ strobe</b> Shutter closed Shutter open (32=default) Strobe-effect from slow to fast Shutter open Opening pulse in sequences from slow to fast Closing pulse in sequences from fast to slow Shutter open Random strobe-effect from slow to fast Shutter open	step step proportional step proportional proportional step proportional step
48	27	32	32	0 - 255	<b>Dimmer intensity (8 bit)</b> Dimmer intensity from 0% to 100% (0=default)	proportional

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
49	*	33	33		<b>Dimmer intensity - fine (16 bit)</b>	
				0 - 255	Fine dimming (0=default)	proportional
*	*	*	34		<b>Red pixel 1</b>	
				0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	*	35		<b>Green pixel 1</b>	
				0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	*	36		<b>Blue pixel 1</b>	
				0-255	Blue LED saturation control 0-100% (0=default)	proportional
					:	
*	*	*	88		<b>Red pixel 19</b>	
				0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	*	89		<b>Green pixel 19</b>	
				0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	*	90		<b>Blue pixel 19</b>	
				0-255	Blue LED saturation control 0-100% (0=default)	proportional
** In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming						
*** Select RGB or CMY mixing mode on channel "Power/Special functions"						
**** If the Flower Effect is On, the middle pixel (pixel 1) is controlled by channels relate to the Flower Effect (43-50/17-24/21-28)						
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<b>Robin Spiider - LEE colours on Virtual Colour Wheel</b>				
<b>Colour name</b>	<b>Red (DMX)</b>	<b>Green (DMX)</b>	<b>Blue (DMX)</b>	<b>White (DMX)</b>
LEE 4 (Medium Bastard Amber)	255	118	0	109
LEE 25 (Sunset Red)	255	50	0	3
LEE 19 (Fire)	255	13	0	0
LEE 26 (Bright Red)	255	0	0	0
LEE 58 (Lavender)	117	0	97	110
LEE 68 (Sky Blue)	42	195	100	0
LEE 36 (Medium Pink)	255	74	8	24
LEE 89 (Moss Green)	69	245	0	3
LEE 88 (Lime Green)	187	226	0	0
LEE 90 (Dark Yellow Green)	0	255	1	0
LEE 49 (Medium Purple)	255	0	27	0
LEE 52 (Light Lavender)	227	86	14	134
LEE 102 (Light Amber)	233	164	0	0
LEE 103 (Straw)	207	137	0	33
Lee 140 (Summer Blue)	0	161	7	218
LEE 124 (Dark Green)	29	255	0	12
LEE 106 (Primary Red)	242	1	1	0
LEE 111 (Dark Pink)	255	67	11	49
LEE 115 (Peacock Blue)	0	255	28	41
LEE 126 (Mauve)	255	0	39	0
LEE 117 (Steel Blue)	163	255	14	161
LEE 118 (Light Blue)	0	255	61	34
LEE 122 (Fern Green)	98	255	3	2
LEE 182 (Light Green)	255	16	2	0
LEE 121 (LEE Green)	165	255	0	0
LEE 128 (Bright Pink)	255	0	13	32
LEE 131 (Marine Blue)	73	245	27	30
LEE 132 (Medium Blue)	0	193	113	0
LEE 134 (Golden Amber)	191	83	0	0
LEE 135 (Deep Golden Amber)	255	52	0	0
LEE 136 (Pale Lavender)	164	96	29	54
LEE 137 (Special Lavender)	130	60	63	102
LEE 138 (Pale Green)	226	255	0	51
LEE 798 (Chrysalis Pink)	49	0	98	14
LEE 141 (Bright Blue)	8	176	62	0
LEE 147 (Apricot)	215	104	0	15
LEE 148 (Bright Rose)	255	3	0	37
LEE 152 (Pale Gold)	202	115	0	39
LEE 154 (Pale Rose)	214	107	0	48
LEE 157 (Pink)	255	56	5	48
LEE 143 (Pale Navy Blue)	0	193	72	148
LEE 162 (Bastard Amber)	223	153	6	41
LEE 164 (Flame Red)	255	27	0	4
LEE 165 (Daylight Blue)	23	236	87	81
LEE 169 (Lilac Tint)	206	123	0	110
LEE 170 (Deep Lavender)	235	123	41	33
LEE 172 (Lagoon Blue)	0	255	54	0



<b>Colour name</b>	<b>Red (DMX)</b>	<b>Green (DMX)</b>	<b>Blue (DMX)</b>	<b>White (DMX)</b>
LEE 194 (Surprise Pink)	110	0	21	255
LEE 180 (Dark Lavender)	136	43	181	89
LEE 181 (Congo Blue)	37	0	255	0
LEE 197 (Alice Blue)	107	220	129	0
LEE 201 (Full C.T. Blue)	179	255	57	34
LEE 202 (Half C.T. Blue)	217	255	37	3
LEE 203 (Quarter C.T. Blue)	236	255	30	3
LEE 204 (Full C.T. Orange)	230	125	3	7
LEE 219 (Fluorescent Green)	99	148	16	50
LEE 206 (Quarter C.T. Orange)	204	140	0	57
LEE 247 (LEE Minus Green)	255	81	0	193
LEE 248 (Half Minus Green)	255	144	0	137
LEE 281 (Three Quarter C.T. Blue)	225	255	72	160
LEE 285 (Three Quarter C.T. Orange)	199	124	0	17
LEE 352 (Glacier Blue)	0	161	65	90
LEE 353 (Lighter Blue)	0	115	37	97
LEE 507 (Madge)	255	31	0	0
LEE 778 (Millennium Gold)	255	65	0	0
LEE 793 (Vanity Fair)	255	0	13	16