

## DMX protocol

Robin MMX Blade - DMX protocol, version 1.1						
Mode/channel			DMX Value	Function	Type of control	
1	2	3				
1	1	1		<b>Pan</b>		
			0 - 255	Pan movement by 540°	proportional	
2	2	*		<b>Pan Fine</b>		
			0 - 255	Fine control of pan movement	proportional	
3	3	2		<b>Tilt</b>		
			0 - 255	Tilt movement by 270°	proportional	
4	4	*		<b>Tilt fine</b>		
			0 - 255	Fine control of tilt movement	proportional	
5	5	3		<b>Pan/Tilt speed , Pan/Tilt time</b>		
			0	Standard mode	step	
			1	Max. Speed Mode	step	
				<b>Pan/Tilt speed mode</b>		
			2 - 255	Speed from max. to min.	proportional	
				<b>Pan/Tilt time mode</b>		
			2 - 255	Time from 0.2 s to 25.5 sec.	proportional	
6	6	4		<b>Power/Special functions</b>		
			0 - 9	Reserved		
				<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 43/38/36 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden except DMX Input.</i>		
			10-14	DMX input: Wired DMX *	step	
			15-19	DMX input: Wireless DMX *	step	
				* function is active only 10 seconds after switching the fixture on		
			20-29	Reserved	step	
			30-34	Pan/Tilt acceleration High	step	
			35-39	Pan/Tilt acceleration Compatible	step	
			40-44	Dimmer-Compatible curve	step	
			45-49	Dimmer-SYNC curve	step	
			50 - 59	Pan/Tilt speed mode	step	
			60 - 69	Pan/Tilt time mode	step	
			70 - 79	Blackout while pan/tilt moving	step	
			80 - 89	Disabled blackout while pan/tilt moving	step	
			90 - 99	Blackout while colour wheel moving	step	
			100 - 109	Disabled blackout while colour wheel moving	step	
			110 - 119	Blackout while gobo wheel moving	step	
			120-129	Disabled blackout while gobo wheel moving	step	
				<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>		
			130 - 139	Lamp On,reset(total reset except pan/tilt reset)	step	
			140 - 149	Pan/Tilt reset	step	
			150 - 159	Colour system reset	step	
			160 - 169	Gobo wheels reset	step	
			170 - 179	Dimmer/Shutter/Hot-spot reset	step	
			180 - 189	Zoom/focus/frost/prism reset	step	
			190 - 199	Iris/framing shutters/effect wheel reset	step	
			200 - 209	Total reset	step	
			210 - 229	Reserved		

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1	2	3			
			230 - 239	Lamp Off	step
			240	Disabled "Silent" mode of fans	step
				<i>To activate the "Silent mode", stop in range of 241-255 at least 3 sec.</i>	
			241-255	Silent mode of fans: Fans noise fom min. to max	proportional
<b>7</b>	<b>7</b>	<b>5</b>		<b>Colour wheel</b>	
				<b>Continual positioning</b>	
			0	Open/white	proportional
			18	Deep red	proportional
			37	Deep blue	proportional
			55	Orange	proportional
			73	Green	proportional
			91	Amber	proportional
			110	UV filter	proportional
			128-129	White	step
				<b>Positioning</b>	
			130-139	Deep red	step
			140-149	Deep blue	step
			150-159	Orange	step
			160-169	Green	step
			170-179	Amber	step
			180-189	UV filter	step
			190 - 215	Forwards rainbow effect from fast to slow	proportional
			216 - 217	No rotation	step
			218 - 243	Backwards rainbow effect from slow to fast	proportional
			244 - 249	Random colour selection by audio control	step
				(Set microphone sensitivity in menu „Personality“)	
			250 - 255	Auto random colour selection from fast to slow	proportional
<b>8</b>	<b>*</b>	<b>*</b>		<b>Colour wheel - fine positioning</b>	
			0 - 255	Fine positioning	proportional
<b>9</b>	<b>8</b>	<b>6</b>		<b>Cyan</b>	
			0 - 255	Cyan (0-white, 255-full cyan)	proportional
<b>10</b>	<b>9</b>	<b>7</b>		<b>Magenta</b>	
			0 - 255	Magenta (0-white, 255-full magenta)	proportional
<b>11</b>	<b>10</b>	<b>8</b>		<b>Yellow</b>	
			0 - 255	Yellow (0-white, 255-full yellow)	proportional
<b>12</b>	<b>11</b>	<b>9</b>		<b>CTO filter</b>	
			0 - 255	(0-6900K, 255-3200K)	proportional
<b>13</b>	<b>12</b>	<b>10</b>		<b>CMY colour macros</b>	
			0 - 7	No function	step
			8 - 15	Macro 1	step
			16 -23	Macro 2	step
			24-31	Macro 3	step
			32-39	Macro 4	step
			40-47	Macro 5	step
			48-55	Macro 6	step
			56-63	Macro 7	step
			64-71	Macro 8	step
			72-79	Macro 9	step
			80-87	Macro 10	step
			88-95	Macro 11	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			96-103	Macro 12	step
			104-111	Macro 13	step
			112-119	Macro 14	step
			120-127	Macro 15	step
			128-135	Macro 16	step
			136-143	Macro 17	step
			144-151	Macro 18	step
			152-159	Macro 19	step
			160-167	Macro 20	step
			168-175	Macro 21	step
			176-183	Macro 22	step
			184-191	Macro 23	step
			192-199	Macro 24	step
			200 - 207	Macro 25	step
			208 - 215	Macro 26	step
			216 - 223	Macro 27	step
			224 - 231	Macro 28	step
			232 - 239	Macro 29	step
			240 - 243	Macro 30	proportional
			244 - 249	Random macro selection by audio control (Set microphone sensitivity in menu "PPersonality")	step
			250 - 255	Auto random macro selection from fast to slow	proportional
<b>14</b>	<b>13</b>	<b>11</b>		<b>Effect Speed</b>	
				<i>Speed of CMY&amp;CTO movement and Rot. Gobo selection</i>	
			0-255	Speed of CMY+CTO movement from max. to min.	proportional
			0-255	Speed of Rot. Gobo Selection from max. to min. (0-25.5sec.)	proportional
<b>15</b>	<b>14</b>	<b>12</b>		<b>Effect wheel positioning</b>	
			0-19	No function	step
			20-127	Proportional indexing (73-center)	proportional
			128-170	Ramping from open to full position ( max--->min. speed)	proportional
			171-213	Ramping from open to half position ( max. --->min. speed)	proportional
			214-255	Ramp. from half position to full position ( max. --->min. speed)	proportional
<b>16</b>	<b>15</b>	<b>13</b>		<b>Effect wheel rotation</b>	
			0	No rotation	step
			1 - 127	Forwards rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards rotation from slow to fast	proportional
<b>17</b>	<b>16</b>	<b>14</b>		<b>Effect wheel animations</b>	
			0-7	No animation	
				<b>Note</b> : Set suitable DMX value at <b>Focus</b> channel to get desired animation. All animations were created at distance 7 m from screen with zoom=255DMX, Focus=15DMX	
				The channels are blocked: Effect wheel positioning, Effect wheel rotation, rotating gobo wheel, rotating gobo rotation	
			8-9	Animation Macro 1	step
			10-11	Animation Macro 2	step
			12-13	Animation Macro 3	step
			14-15	Animation Macro 4	step
			16-17	Animation Macro 5	step
			18-19	Animation Macro 6	step
			20-21	Animation Macro 7	step

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1	2	3			
			22-23	Animation Macro 8	step
			24-25	Animation Macro 9	step
			26-27	Animation Macro 10	step
			28-255	Reserved	
<b>18</b>	<b>17</b>	<b>15</b>		<b>Rotating gobo wheel</b>	
				<i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i>	
				<b><i>Index - set indexing on channel 19/18/16</i></b>	
			0-3	Open/hole	step
			4-7	Gobo 1	step
			8-11	Gobo 2	step
			12-15	Gobo 3	step
			16-19	Gobo 4	step
			20-23	Gobo 5	step
			24-27	Gobo 6	step
			28-31	Gobo 7	step
				<b><i>Rotation - set rotation on channel 19/18/16</i></b>	
			32-35	Gobo 1	step
			36-39	Gobo 2	step
			40-43	Gobo 3	step
			44-47	Gobo 4	step
			48-51	Gobo 5	step
			52-55	Gobo 6	step
			56-59	Gobo 7	step
				<b><i>Shaking gobos from slow to fast</i></b>	
				<b><i>Index - set indexing on channel 19/18/16</i></b>	
			60 - 69	Gobo 1	proportional
			70 - 79	Gobo 2	proportional
			80 - 89	Gobo 3	proportional
			90 - 99	Gobo 4	proportional
			100 - 109	Gobo 5	proportional
			110 - 119	Gobo 6	proportional
			120 - 129	Gobo 7	proportional
				<b><i>Shaking gobos from slow to fast</i></b>	
				<b><i>Rotation - set rotation on channel 19/18/16</i></b>	
			130 - 139	Gobo 1	proportional
			140 - 149	Gobo 2	proportional
			150 - 159	Gobo 3	proportional
			160 - 169	Gobo 4	proportional
			170 - 179	Gobo 5	proportional
			180 - 189	Gobo 6	proportional
			190 - 199	Gobo 7	proportional
			200 - 201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	step
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
			244 - 249	Random gobo selection by audio control (Set microphone sensitivity in menu „Personality“)	step
			250 - 255	Auto random gobo selection from fast to slow	proportional
<b>19</b>	<b>18</b>	<b>16</b>		<b>Rot. Gobo indexing and rotation</b>	

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1	2	3			
				<b>Gobo indexing - set position on channel 18/17/15</b>	
			0 - 255	Gobo indexing	proportional
				<b>Gobo rotation - set position on channel 18/17/15</b>	
			0	No rotation	step
			1 - 127	Forwards gobo rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards gobo rotation from slow to fast	proportional
<b>20</b>	<b>*</b>	<b>*</b>		<b>Rot. Gobo indexing/rotation - fine</b>	
			0-255	Fine indexing (rotation)	proportional
<b>21</b>	<b>19</b>	<b>17</b>		<b>Prism</b>	
			0 - 19	Open position (hole)	step
			20 - 127	5-facet rotating prism	step
			128 - 255	Prism/gobo macros	
			128 - 135	Macro 1	step
			136 - 143	Macro 2	step
			144 - 151	Macro 3	step
			152 - 159	Macro 4	step
			160 - 167	Macro 5	step
			168 - 175	Macro 6	step
			176 - 183	Macro 7	step
			184 - 191	Macro 8	step
			192 - 199	Macro 9	step
			200 - 207	Macro 10	step
			208 - 215	Macro 11	step
			216 - 223	Macro 12	step
			224 - 231	Macro 13	step
			232 - 239	Macro 14	step
			240 - 247	Macro 15	step
			248 - 255	Macro 16	step
<b>22</b>	<b>20</b>	<b>18</b>		<b>Prism rotation</b>	
			0	No rotation	step
			1 - 127	Forwards rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards rotation from slow to fast	proportional
<b>23</b>	<b>21</b>	<b>19</b>		<b>Frost</b>	
			0	Open	step
			1 - 179	Frost from 0% to 100%	proportional
			180 - 189	100% frost	step
			190 - 211	Pulse closing from slow to fast	proportional
			212 - 233	Pulse opening from fast to slow	proportional
			234 - 255	Ramping from fast to slow	proportional
<b>24</b>	<b>22</b>	<b>20</b>		<b>Iris</b>	
			0	Open	step
			1 - 179	From max.diameter to min.diameter	proportional
			180 - 191	Closed	step
				<b>Pulse effects with Iris blackout:</b>	
			192 - 219	Pulse opening from slow to fast	proportional
			220 - 247	Pulse closing from fast to slow	proportional
			248 - 249	Random pulse opening (fast)	step
			250 - 251	Random pulse opening (slow)	step

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1	2	3			
			252 - 253	Random pulse closing (fast)	step
			254 - 255	Random pulse closing (slow)	step
<b>25</b>	*	*		<b>Iris - fine</b>	
			0 - 255	Fine iris movement	proportional
<b>26</b>	<b>23</b>	<b>21</b>		<b>Zoom</b>	
			0 - 255	Zoom from max. to min.beam angle	proportional
<b>27</b>	*	*		<b>Zoom - fine</b>	
			0-255	Fine zooming	proportional
<b>28</b>	<b>24</b>	<b>22</b>		<b>Focus</b>	
			0 - 255	Continuous adjustment from far to near	proportional
<b>29</b>	*	*		<b>Focus - fine</b>	
			0- 255	Fine focusing	proportional
<b>30</b>	<b>25</b>	<b>23</b>		<b>Autofocus (priority &amp; distance selection)</b>	
				Select desired distance and effect on which you need to focus and use "Focus" channel (28/24/22) to focus the image.	
			0	Autofocus Off	step
				<b>hole and framing shutters</b>	
			1	4 metres	proportional
			8	7 metres	proportional
			16	10 metres	proportional
			24	15 metres	proportional
			32	20 metres	proportional
			40	30 metres	proportional
			48	40 metres	proportional
			56	50 metres	proportional
				<b>Iris</b>	
			64	4 metres	proportional
			72	7 metres	proportional
			80	10 metres	proportional
			88	15 metres	proportional
			96	20 metres	proportional
			104	30 metres	proportional
			112	40 metres	proportional
			120	50 metres	proportional
				<b>Gobo wheel</b>	
			128	4 metres	proportional
			136	7 metres	proportional
			144	10 metres	proportional
			152	15 metres	proportional
			160	20 metres	proportional
			168	30 metres	proportional
			176	40 metres	proportional
			184	50 metres	proportional
			192	Infinity	proportional
			193-255	Reserved	
<b>31</b>	<b>26</b>	<b>24</b>		<b>Framing shutters module rotation</b>	
			0-127	Rotation from right (0°) to 45°	proportional
			128	45°	step
			129-255	Rotation from 45° to left (90°)	proportional
<b>32</b>	<b>27</b>	<b>25</b>		<b>Framing shutter 1- movent</b>	

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1	2	3			
			0-255	Movement from Outward to Inward	proportional
<b>33</b>	<b>28</b>	<b>26</b>		<b>Framing shutter 1- swivelling</b>	
			0-127	Swivelling from -25 degrees towards 0 degrees	proportional
			128	0 degrees (default)	step
			129-255	Swivelling from 0 degrees to +25 degrees	proportional
<b>34</b>	<b>29</b>	<b>27</b>		<b>Framing shutter 2- movent</b>	
			0-255	Movement from Outward to Inward	proportional
<b>35</b>	<b>30</b>	<b>28</b>		<b>Framing shutter 2- swivelling</b>	
			0-127	Swivelling from -25 degrees towards 0 degrees	proportional
			128	0 degrees (default)	step
			129-255	Swivelling from 0 degrees to +25 degrees	proportional
<b>36</b>	<b>31</b>	<b>29</b>		<b>Framing shutter 3 movent</b>	
			0-255	Movement from Outward to Inward	proportional
<b>37</b>	<b>32</b>	<b>30</b>		<b>Framing shutter 3- swivelling</b>	
			0-127	Swivelling from -25 degrees towards 0 degrees	proportional
			128	0 degrees (default)	step
			129-255	Swivelling from 0 degrees to +25 degrees	proportional
<b>38</b>	<b>33</b>	<b>31</b>		<b>Framing shutter 4 movent</b>	
			0-255	Movement from Outward to Inward	proportional
<b>39</b>	<b>34</b>	<b>32</b>		<b>Framing shutter 4- swivelling</b>	
			0-127	Swivelling from -25 degrees towards 0 degrees	proportional
			128	0 degrees (default)	step
			129-255	Swivelling from 0 degrees to +25 degrees	proportional
<b>40</b>	<b>35</b>	<b>33</b>		<b>Framing shutters macros</b>	
			0-3	No function	
			4-7	Macro 1	step
			8-11	Macro 2	step
			12-15	Macro 3	step
			16-19	Macro 4	step
			20-23	Macro 5	step
			24-27	Macro 6	step
			28-31	Macro 7	step
			32-35	Macro 8	step
			36-39	Macro 9	step
			40-43	Macro 10	step
			44-47	Macro 11	step
			48-51	Macro 12	step
			52-55	Macro 13	step
			56-59	Macro 14	step
			60-63	Macro 15	step
			64-67	Macro 16	step
			68-71	Macro 17	step
			72-75	Macro 18	step
			76-79	Macro 19	step
			80-83	Macro 20	step
			84-87	Macro 21	step
			88-91	Macro 22	step
			92-95	Macro 23	step
			96-99	Macro 24	step
			100-103	Macro 25	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			104-107	Macro 26	step
			108-111	Macro 27	step
			112-115	Macro 28	step
			116-119	Macro 29	step
			120-123	Macro 30	step
			124-127	Macro 31	step
			128-131	Macro 32	step
			132-135	Macro 33	step
			136-139	Macro 34	step
			140-143	Macro 35	step
			144-147	Macro 36	step
			148-151	Macro 37	step
			152-155	Macro 38	step
			156-159	Macro 39	step
			160-163	Macro 40	step
			164-167	Macro 41	step
			168-171	Macro 42	step
			172-175	Macro 43	step
			176-179	Macro 44	step
			180-183	Macro 45	step
			184-187	Macro 46	step
			188-191	Macro 47	step
			192-195	Macro 48	step
			196-199	Macro 49	step
			200-203	Macro 50	step
			204-207	Macro 51	step
			208-211	Macro 52	step
			212-255	Reserved	
<b>41</b>	<b>36</b>	<b>34</b>		<b>Framing shutters macro speed</b>	
			0- 255	Speed from slow to fast.	proportional
<b>42</b>	<b>37</b>	<b>35</b>		<b>Hot-spot</b>	
			0-255	Beam distribution control from max. intensity to min. intensity	proportional
<b>43</b>	<b>38</b>	<b>36</b>		<b>Shutter/ strobe</b>	
			0 - 31	Shutter closed, Lamp power reduced to 500 W	step
			32 - 63	Shutter open, Full lamp power	step
			64 - 95	Strobe-effect from slow to fast	proportional
			96 - 127	Shutter open, Lamp power reduced to 500 W	step
			128 - 143	Opening pulse in sequences from slow to fast	proportional
			144 - 159	Closing pulse in sequences from fast to slow	proportional
			160 - 191	Shutter open, Electronic strobing „ZAP“ from slow to fast	proportional
			192 - 223	Random strobe-effect from slow to fast	proportional
			224 - 255	Shutter open, Full lamp power	step
<b>44</b>	<b>39</b>	<b>37</b>		<b>Dimmer intensity</b>	
			0 - 255	Dimmer intensity from 0% to 100%	proportional
<b>45</b>	<b>*</b>	<b>*</b>		<b>Dimmer intensity - fine</b>	
			0 - 255	Fine dimming	proportional