

## Desk Dough® Beam – Layer

| Channel | Name            | Function                   | DMX Value |              | default | notes            |
|---------|-----------------|----------------------------|-----------|--------------|---------|------------------|
| 1       | Dimmer          | Intensity                  | 0 – 255   | proportional | 0       |                  |
| 2       | Blendmode       | Interpolate (Off)          | 0         | step         | 0       | see explanations |
|         |                 | Replace                    | 1         | step         |         |                  |
|         |                 | Add                        | 2         | step         |         |                  |
|         |                 | Subtract                   | 3         | step         |         |                  |
|         |                 | Multiply                   | 4         | step         |         |                  |
|         |                 | Subtract Math              | 5         | step         |         |                  |
|         |                 | Multiply Math              | 6         | step         |         |                  |
|         |                 | Invert                     | 7         | step         |         |                  |
|         |                 | tbc*                       | 5...255   | step         |         |                  |
| 3       | Strobemode      | Open                       | 0 – 5     | step         | 0       | see explanations |
|         |                 | Close                      | 6 – 10    | step         |         |                  |
|         |                 | Strobe sync                | 11        | step         |         |                  |
|         |                 | Strobe sync pulse          | 12        | step         |         |                  |
|         |                 | Strobe sync step           | 13        | step         |         |                  |
|         |                 | Strobe random              | 14        | step         |         |                  |
|         |                 | Strobe random pulse        | 15        | step         |         |                  |
|         |                 | Strobe random step         | 16        | step         |         |                  |
|         |                 | Chase pulse long           | 17        | step         |         | only wing        |
|         |                 | Chase pulse long inverted  | 18        | step         |         | only wing        |
|         |                 | Chase pulse short          | 19        | step         |         | only wing        |
|         |                 | Chase pulse short inverted | 20        | step         |         | only wing        |
|         |                 | Chase step                 | 21        | step         |         | group+wing       |
|         |                 | Chase step random          | 22        | step         |         | group+wing       |
|         |                 | Chase fade                 | 23        | step         |         | group+wing       |
|         |                 | Chase fade random          | 24        | step         |         | group+wing       |
|         |                 | tbc*                       | 25...255  | step         |         |                  |
| 4       | Strobespeed     | fast to slow CW            | 0 – 126   | proportional |         |                  |
|         |                 | stop                       | 127       | step         | 127     |                  |
|         |                 | slow to fast CCW           | 128 – 255 | proportional |         |                  |
| 5       | Strobegroup     | Group 0 – 255              | 0 – 255   | step         | 4       |                  |
| 6       | Strobewing      | Wing 0 – 255               | 0 – 255   | step         | 0       |                  |
| 7       | Red / Cyan      | Colour Saturation          | 0 – 255   | proportional | 255     |                  |
| 8       | Green / Magenta | Colour Saturation          | 0 – 255   | proportional | 255     |                  |
| 9       | Blue / Yellow   | Colour Saturation          | 0 – 255   | proportional | 255     |                  |
| 10      | Colourmode      | RGB Colour Mix             | 0         | step         | 0       | see explanations |
|         |                 | CMY Colour Mix             | 1         | step         |         |                  |
|         |                 | Single Colour              | 2         | step         |         |                  |
|         |                 | Colorscroll                | 3         | step         |         |                  |
|         |                 | 2 Colour Edge              | 4         | step         |         | gobo fx          |
|         |                 | 2 Colour Vignette          | 5         | step         |         | gobo fx          |
|         |                 | 2 Colour Ring Edge         | 6         | step         |         | prism            |
|         |                 | 2 Colour Ring Vignette     | 7         | step         |         | prism            |
|         |                 | 2 Colour Square Edge       | 8         | step         |         | prism            |
|         |                 | 2 Colour Square Vignette   | 9         | step         |         | prism            |

| Channel | Name            | Function                 | DMX Value         |               | default | notes                                   |                    |       |  |
|---------|-----------------|--------------------------|-------------------|---------------|---------|---|--------------------|-------|--|
| 11      | Colour 1        | Open (White)             | 0                 | step          | 0       | see explanations                        |                    |       |  |
|         |                 | Red                      | 1                 | step          |         |   |                    |       |  |
|         |                 | Orange                   | 2                 | step          |         |   |                    |       |  |
|         |                 | Yellow                   | 3                 | step          |         |   |                    |       |  |
|         |                 | Green                    | 4                 | step          |         |   |                    |       |  |
|         |                 | Ocean                    | 5                 | step          |         |   |                    |       |  |
|         |                 | Blue                     | 6                 | step          |         |   |                    |       |  |
|         |                 | Deep Blue                | 7                 | step          |         |   |                    |       |  |
|         |                 | Violett                  | 8                 | step          |         |   |                    |       |  |
|         |                 | Pink                     | 9                 | step          |         |   |                    |       |  |
|         |                 | CTO                      | 10                | step          |         |   |                    |       |  |
| CTB     | 11              | step                     |                   |               |         |   |                    |       |  |
| 12      | Colour 2        | Open (White)             | 0                 | step          | 0       | see explanations                        |                    |       |  |
|         |                 | Red                      | 1                 | step          |         |   |                    |       |  |
|         |                 | Orange                   | 2                 | step          |         |   |                    |       |  |
|         |                 | Yellow                   | 3                 | step          |         |   |                    |       |  |
|         |                 | Green                    | 4                 | step          |         |   |                    |       |  |
|         |                 | Ocean                    | 5                 | step          |         |   |                    |       |  |
|         |                 | Blue                     | 6                 | step          |         |   |                    |       |  |
|         |                 | Deep Blue                | 7                 | step          |         |   |                    |       |  |
|         |                 | Violett                  | 8                 | step          |         |   |                    |       |  |
|         |                 | Pink                     | 9                 | step          |         |   |                    |       |  |
|         |                 | CTO                      | 10                | step          |         |   |                    |       |  |
| CTB     | 11              | step                     |                   |               |         |   |                    |       |  |
| 13      | Colour Variable | <<<                      | 0 – 126           | proportional  | 127     | Dim Colour 1 0–255<br>C1 and C2 at full |                    |       |  |
|         |                 | Home Dim                 | 127               | step          |         |   |                    |       |  |
|         |                 | >>>                      | 128 – 255         | proportional  |         |   | Dim Colour 2 255–0 |       |  |
| 14/15   | Colour Variable | <<<                      | 0 – 32767         | proportional  | 32768   | Width Colour 1<br>C1 and C2 at default  |                    |       |  |
|         |                 | Home Width               | 32768             | step          |         |   |                    |       |  |
|         |                 | >>>                      | 32769 – 65535     | proportional  |         |   | Width Colour 2     |       |  |
| 16      | Gobo            | depends on Gobo Folder   | 0–255             | step          | 0       |   |                    |       |  |
| 17      | Folder          | Classics                 | 0                 | step          | 0       |   |                    |       |  |
|         |                 | Lines                    | 1                 |               |         |   |                    |       |  |
|         |                 | Circles                  | 2                 |               |         |   |                    |       |  |
|         |                 | Squares                  | 3                 |               |         |   |                    |       |  |
|         |                 | Patterns                 | 4                 |               |         |   |                    |       |  |
|         |                 | Swirls                   | 5                 |               |         |   |                    |       |  |
|         |                 | Organic                  | 6                 |               |         |   |                    |       |  |
|         |                 | Grunge                   | 7                 |               |         |   |                    |       |  |
|         |                 | Animals                  | 8                 |               |         |   |                    |       |  |
|         |                 | Letters                  | 9                 |               |         |   |                    |       |  |
|         |                 | Symbols                  | 10                |               |         |   |                    |       |  |
|         |                 | Classics 3D              | 100               |               |         |   |                    |       |  |
|         |                 | Letters 3D               | 101               |               |         |   |                    |       |  |
|         |                 | Custom                   | 200               |               |         |   |                    |       |  |
|         |                 | tbc*                     | 11...99/102...199 | step          |         |   |                    |       |  |
|         |                 | 18/19                    | PAN movement      | Gobo Pan      |         |   |                    | 32768 |  |
|         |                 |                          |                   | Left to Right |         | 0 – 65535                               | proportional       |       |  |
| 20/21   | TILT movement   | Gobo Tilt                |                   |               | 32768   |   |                    |       |  |
|         |                 | Bottom to Top            | 0 – 65535         | proportional  |         |   |                    |       |  |
| 22/23   | DEPTH movement  | Gobo Depth               |                   |               | 32768   |   |                    |       |  |
|         |                 | Front to Back            | 0 – 65535         | proportional  |         |   |                    |       |  |
| 24/25   | Zoom            | Small (0.1x) – Big (10x) | 0 – 65535         | proportional  | 32768   |   |                    |       |  |
| 26/27   | Gobo Scale X    | Small (0.1x) – Big (10x) | 0 – 65535         | proportional  | 32768   |   |                    |       |  |
| 28/29   | Gobo Scale Y    | Small (0.1x) – Big (10x) | 0 – 65535         | proportional  | 32768   |   |                    |       |  |
| 30/31   | Gobo Scale Z    | Small (0.1x) – Big (10x) | 0 – 65535         | proportional  | 32768   |   |                    |       |  |

| Channel | Name                | Function                     | DMX Value     |              | default | notes            |
|---------|---------------------|------------------------------|---------------|--------------|---------|------------------|
| 32      | Rotation Function X | Index (for Gobo in x)        | 0 – 127       | step         | 0       |                  |
|         |                     | Rotation (for Gobo in x)     | 128 – 255     | step         |         |                  |
| 33/34   | Gobo Rotation in x  | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        | 0-65535       | proportional |         |                  |
|         |                     | Rotation: Fast – Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow – Fast        | 32769 – 65535 | proportional |         |                  |
| 35      | Rotation Function Y | Index (for Gobo in y)        | 0 – 127       | step         | 0       |                  |
|         |                     | Rotation (for Gobo in y)     | 128 – 255     | step         |         |                  |
| 36/37   | Gobo Rotation in y  | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        | 0-65535       | proportional |         |                  |
|         |                     | Rotation: Fast – Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow – Fast        | 32769 – 65535 | proportional |         |                  |
| 38      | Rotation Function Z | Index (for Gobo in z)        | 0 – 127       | step         | 0       |                  |
|         |                     | Rotation (for Gobo in z)     | 128 – 255     | step         |         |                  |
| 39/40   | Gobo Rotation in z  | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        | 0-65535       | proportional |         |                  |
|         |                     | Rotation: Fast – Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow – Fast        | 32769 – 65535 | proportional |         |                  |
| 41      | Gobo Orientation    | Centered                     | 0             | step         | 0       | see explanations |
|         |                     | Centered 90                  | 1             | step         |         |                  |
|         |                     | Linear                       | 2             | step         |         |                  |
|         |                     | Align                        | 3             | step         |         |                  |
|         |                     | Billboard                    | 4             | step         |         |                  |
| 42      | Surface             | Off                          | 0             | step         | 0       | see explanations |
|         |                     | Surface 1                    | 1             | step         |         |                  |
|         |                     | Surface 2                    | 2             | step         |         |                  |
|         |                     | Surface 3                    | 3             | step         |         |                  |
|         |                     | Surface 4                    | 4             | step         |         |                  |
|         |                     | Surface 5                    | 5             | step         |         |                  |
|         |                     | Surface 6                    | 6             | step         |         |                  |
|         |                     | fbc*                         | 7...255       | step         |         |                  |
| 43      | Surface Strength    | Surface Strength             | 0-255         | proportional | 0       |                  |
| 44      | Erosion FX          | Off                          | 0             | step         | 0       |                  |
|         |                     | Bend                         | 1             | step         |         |                  |
|         |                     | Sin                          | 2             | step         |         |                  |
|         |                     | Saw                          | 3             | step         |         |                  |
|         |                     | Tris                         | 4             | step         |         |                  |
|         |                     | SinRotation                  | 5             | step         |         |                  |
|         |                     | SawRotation                  | 6             | step         |         |                  |
|         |                     | TrisRotation                 | 7             | step         |         |                  |
|         |                     | Swirl                        | 8             | step         |         |                  |
|         |                     | Screw                        | 9             | step         |         |                  |
|         |                     | Displace                     | 10            | step         |         |                  |
|         |                     | Scatter                      | 11            | step         |         |                  |
|         |                     | Spherecast                   | 12            | step         |         |                  |
|         |                     | Taper                        | 13            | step         |         |                  |
| fbc*    | 14...255            | step                         |               |              |         |                  |
| 45/46   | Erosion Variable 1  | depends on Erosion FX        |               |              | 32768   | see explanations |
|         |                     | <<< less                     | 0 - 32767     | proportional |         |                  |
|         |                     | stop                         | 32768         | step         |         |                  |
|         |                     | >>> more                     | 32769 – 65535 | proportional |         |                  |
| 47/48   | Erosion Variable 2  | depends on Erosion FX        |               |              | 32768   | see explanations |
|         |                     | <<< less                     | 0 - 32767     | proportional |         |                  |
|         |                     | stop                         | 32768         | step         |         |                  |
|         |                     | >>> more                     | 32769 – 65535 | proportional |         |                  |

| Channel | Name                | Function                     | DMX Value     |              | default | notes            |
|---------|---------------------|------------------------------|---------------|--------------|---------|------------------|
| 49/50   | Erosion Variable 3  | depends on Erosion FX        |               |              | 32768   | see explanations |
|         |                     | <<< less                     | 0 - 32767     | proportional |         |                  |
|         |                     | stop                         | 32768         | step         |         |                  |
|         |                     | >>> more                     | 32769 - 65535 | proportional |         |                  |
| 51      | Prism Amount        | Off (1 Gobo)                 | 0             | step         | 0       |                  |
|         |                     | 1-255                        | 1-255         | step         |         |                  |
| 52      | Prism Arrangement   | Off                          | 0             | step         | 0       |                  |
|         |                     | Ring                         | 1             | step         |         |                  |
|         |                     | 2 Rings                      | 2             | step         |         |                  |
|         |                     | Sparkle                      | 3             | step         |         |                  |
|         |                     | Line                         | 4             | step         |         |                  |
|         |                     | Triangle sym                 | 5             | step         |         |                  |
|         |                     | Triangle asym                | 6             | step         |         |                  |
|         |                     | Square sym                   | 7             | step         |         |                  |
|         |                     | Square asym                  | 8             | step         |         |                  |
|         |                     | Star sym                     | 9             | step         |         |                  |
|         |                     | Star asym                    | 10            | step         |         |                  |
| 53/54   | Prism Scale         | Small (0.1x) - Big (10x)     | 0 - 65535     | proportional | 32768   |                  |
| 55      | Prism Random        | randomizing Arrangement      |               |              | 0       |                  |
|         |                     | Off                          | 0             |              |         |                  |
|         |                     | gentle to strong             | 1-255         | proportional |         |                  |
| 56      | Prism Rotation      | Index (for Prism in x)       | 0 - 127       | step         | 0       |                  |
|         | Function X          | Rotation (for Prism in x)    | 128 - 255     | step         |         |                  |
| 57/58   | Prism Rotation in x | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        |               |              |         |                  |
|         |                     | Rotation: Fast - Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow - Fast        | 32769 - 65535 | proportional |         |                  |
| 59      | Prism Rotation      | Index (for Prism in y)       | 0 - 127       | step         | 0       |                  |
|         | Function Y          | Rotation (for Prism in y)    | 128 - 255     | step         |         |                  |
| 60/61   | Prism Rotation in y | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        |               |              |         |                  |
|         |                     | Rotation: Fast - Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow - Fast        | 32769 - 65535 | proportional |         |                  |
| 62      | Prism Rotation      | Index (for Prism in z)       | 0 - 127       | step         | 0       |                  |
|         | Function Z          | Rotation (for Prism in z)    | 128 - 255     | step         |         |                  |
| 63/64   | Prism Rotation in z | depends on Rotation Function |               |              | 32768   |                  |
|         |                     | Index                        |               |              |         |                  |
|         |                     | Rotation: Fast - Slow        | 0 - 32767     | proportional |         |                  |
|         |                     | Rotation: stop               | 32768         | step         |         |                  |
|         |                     | Rotation: Slow - Fast        | 32769 - 65535 | proportional |         |                  |
| 65      | Iris                | Open                         | 0             |              | 0       |                  |
|         |                     | max.diameter to min.diameter | 1-255         | proportional |         |                  |
| 66      | Frost               | Off                          | 0             | step         | 0       |                  |
|         |                     | Gaussian Frost               | 1             | step         |         |                  |
|         |                     | X Frost                      | 2             | step         |         |                  |
|         |                     | Y Frost                      | 3             | step         |         |                  |
|         |                     | fbc*                         | 4..255        | step         |         |                  |
| 67      | Frost Strength      | Off                          | 0             |              | 0       |                  |
|         |                     | light to strong              | 1-255         | proportional |         |                  |
| 68      | Edge Mode           | Off                          | 0             | step         | 0       |                  |
|         |                     | Edge Single                  | 1             | step         |         |                  |
|         |                     | fbc*                         | 2..255        | step         |         |                  |
| 69      | Edge Strength       | Off                          | 0             |              | 0       |                  |
|         |                     | light to strong              | 1-50          | proportional |         |                  |
| 70      | Motorspeed Func.    | fbc*                         |               |              | 0       |                  |
| 71      | Motorspeed          | fbc*                         |               |              | 0       |                  |

## Desk Dough® Beam - Cam

| Channel | Name              | Function                      | DMX Value |              | default | notes |
|---------|-------------------|-------------------------------|-----------|--------------|---------|-------|
| 1/2     | PAN movement      | Camera Position left to right | 0 – 65535 | proportional | 32768   |       |
| 3/4     | TILT movement     | Camera Position bottom to top | 0 – 65535 | proportional | 32768   |       |
| 5/6     | DEPTH movement    | Camera Position front to back | 0 – 65535 | proportional | 32768   |       |
| 7/8     | Camera Rotation X | Camera Rotation X             | 0 – 65535 | proportional | 32768   |       |
| 9/10    | Camera Rotation Y | Camera Rotation Y             | 0 – 65535 | proportional | 32768   |       |
| 11/12   | Camera Rotation Z | Camera Rotation Z             | 0 – 65535 | proportional | 32768   |       |
| 13/14   | Field of View     | FOV                           | 0 – 65535 | proportional | 32768   |       |
| 15...32 |                   | tbc*                          |           |              |         |       |
| 33      | Dimmer            | Intensity of Composition      | 0–255     | proportional | 255     |       |