

Magic Tube

Software Version 1.7

Manual-Version 1.4

Thank you for choosing our Magic Tube.

Martin Preuss / Peter Obermeier 4.Dez 2023

What does the Magic Tube offer?



The Magic Tube is a light stick with LED strips in 144 or 312 LEDs distributed on two sides. There are two versions, the 144 LEDs are in the 53cm Magic Tube and the 312 LEDs are in the 68cm long Magic Tube PRO.

It is controlled via 4 buttons red/green/blue/white and a colored touch display which shows the current status and displays the available patterns. The patterns are distributed across 72 program slots, 28 of which are 4 single-color strobe patterns.

The 44 prefabricated color sequences on 11 levels are organized in blocks of 4 and can be used at any time by simply pressing a button and without any further programming steps. (even during a paint run!). Several patterns are controlled by the built-in gyro and produce special effects.



In the first program level, 4 desired colors can be set and be saved.

The selection is made using the built-in gyro by simply raising and lowering the Magic Tube.
(see detailed explanation on one of the next pages)

Furthermore, a strong LED is built into the end cap, which can be switched to the respective pattern using a slide switch and offers a strobe effect with programmable pulse-pause ratios.

The removable cap means that colored attachments can be used or shading tubes can be pushed on or clipped on. Sources of supply on request.

If in a program the red button is held down at the same time as the green button, then a short light pulse is activated, if green and blue are pressed at the same time the pulse is longer and if blue and white are pressed at the same time, the end cap light is activated as long as it is pressed The Magic Tube can be used as a star or drawing stick.

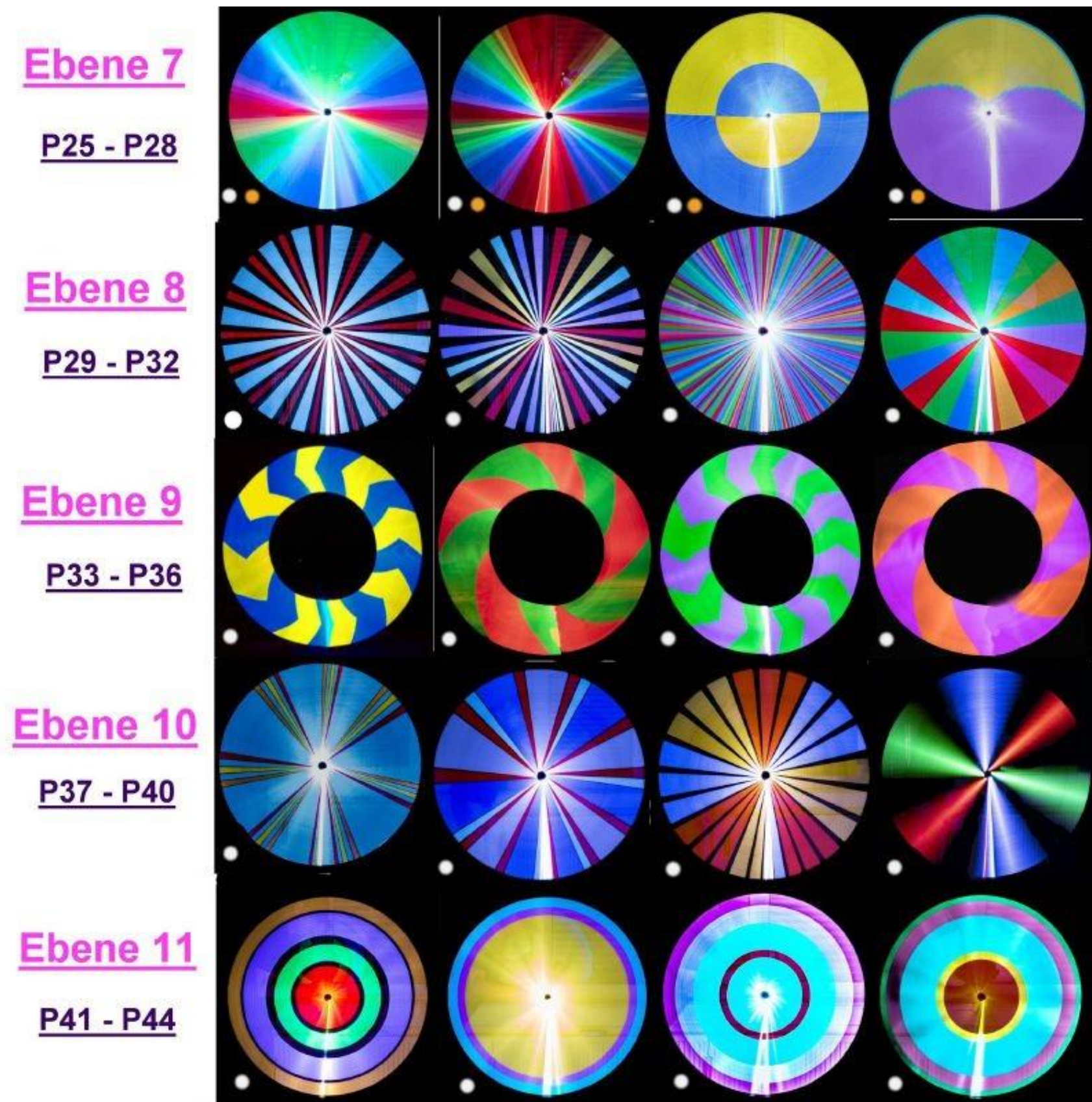
A USB-C interface is built in for later updates; the update is made available via a Github page.
Detailed instructions will be included with an update.



Magic-Tube Programs:



The small white dots next to the sample image indicate the possibility of turning on the end cap light. If the dots are bright white, then the pulse-pause ratio can be programmed.



The small orange dots next to the pattern image indicate the patterns that are generated with gyro support.

Function of the Magic-Tube:

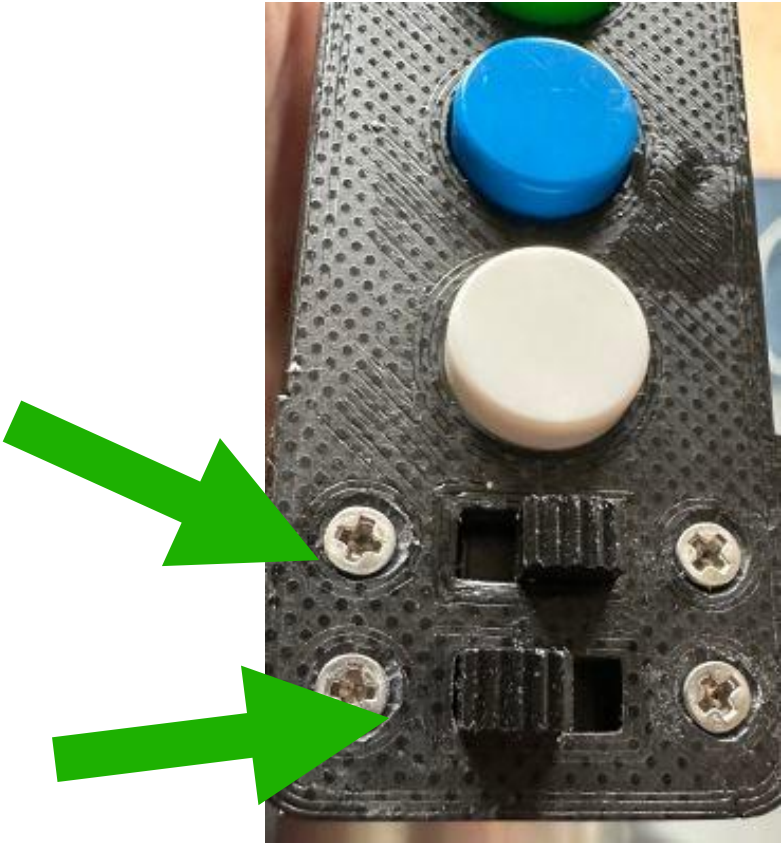
The Magic Tube is switched on with a Slide switch below the white button and the display now shows "Manually".



In manual mode, the primary colors red, green, blue and white are available at the push of a button. If two buttons are pressed at the same time in manual mode, half of the Magic Tube is illuminated with one color and the other half with the other color.

On-Off Switch,
left = Off
right = On

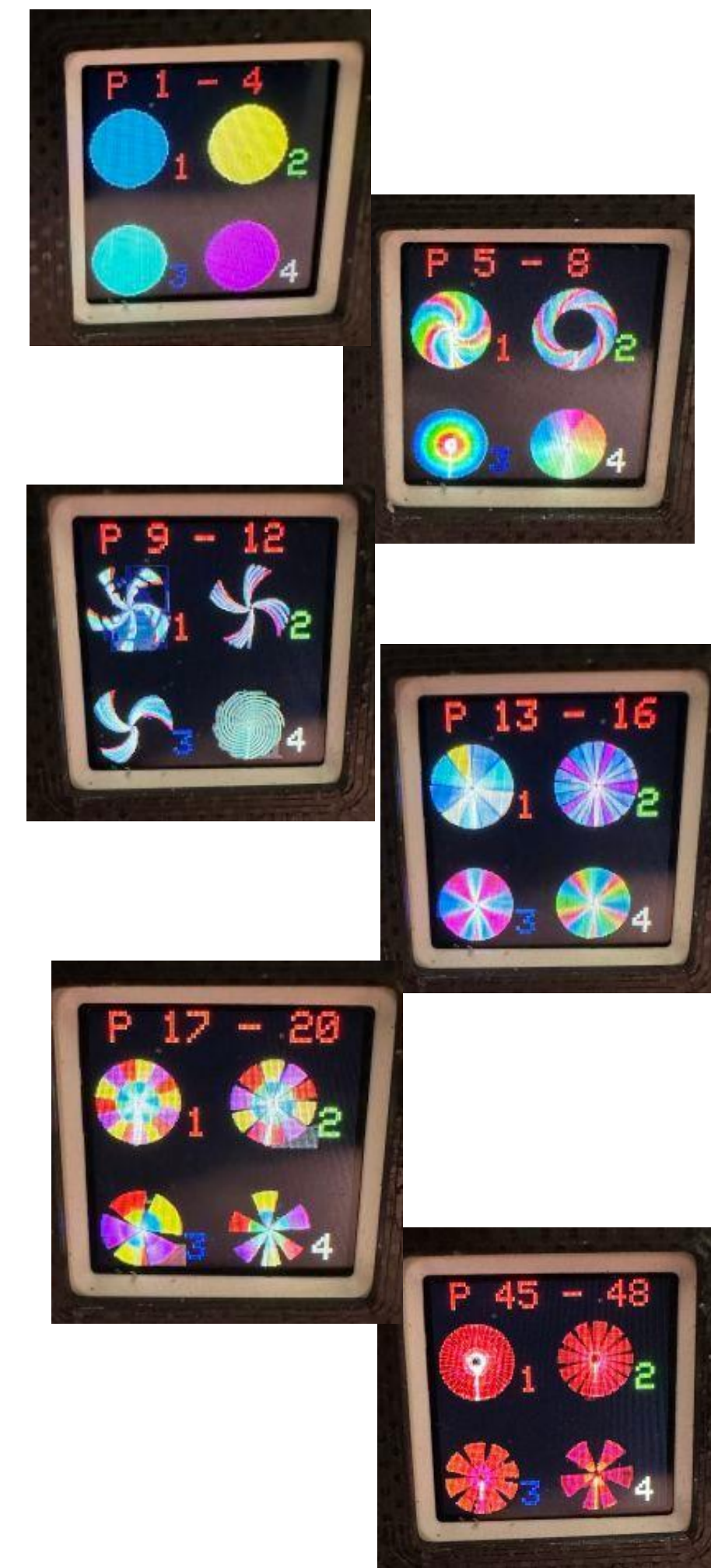
Endcap Strobe
Switch ,
left = Off, right = On



Pressing the display shows the first level with programs 1-4. With the Red button calls up program 1, with green No.2, with blue No.3, with white No.4. The Magic Tube now plays the displayed color sequence in an endless loop. The respective program is ended by pressing the display or briefly pressing the red to white button, the same button that was used to start the program.

The program can also be stopped with any other button (red to white), but this button must be held down for a longer period of time (STOP OK appears in the display), otherwise the program assigned to this button will start.

To change the programs, all you need to do is press a different color button. Each time you press the display again, the Magic Tube jumps one level further. The associated programs are started with the individual colored buttons. Each program is ended by pressing the display or the relevant button. To go to the previous level, hold down the display a little longer.



Once you reach level 12, individual colors are in 4 different strobe speeds to choose from.

The MagicTube then offers to jump back to 'Manually' ('Cancel with Buttons 1 to 4'), or to go through the color selection for the strobes again by pressing the display again.

Use buttons 1 - 4 (red to white) to return to Manually via the version display. To do this, click the display twice.



How is the desired color set?

The first 4 program slots P1 to P4 are pre-assigned with orange, yellow, cyan and violet, but are intended for your own desired colors.

The programming of the color is started with a long press on the respective button. P1 is assigned to the red button, which is indicated by the red number 1 next to the first symbol. P2 is assigned to the green button, P3 to the blue button and P4 to the white button.

If you press the respective button, e.g. P1, and hold it down, the red word "STOP" appears in the display. After a few seconds, the word "OK" also appears. Now you can release the button and the text "Click for Display" will appear in the display.

Now briefly press the button e.g. P1 again and the Magic Tube will become active and display a color in the entire color spectrum, depending on the inclination of the Magic Tube.

When tilted all the way down, purple/pink is displayed, held straight forward it is cyan, slightly upwards it is yellow and vertically upwards it is red.

If the desired color is displayed, a long press on the button until the word "Saved" is displayed is sufficient to save the color.

Now the selected color is shown in the display, even after switching off and on.

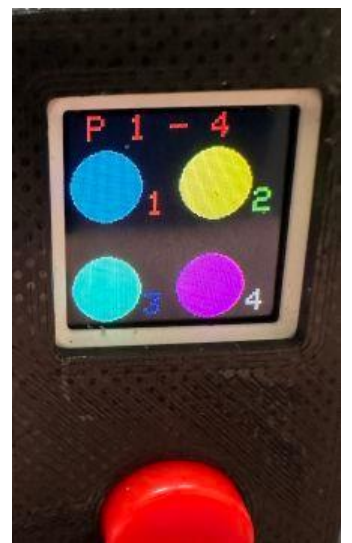
If you stop before saving, the color will not be saved, but the Magic Tube will remain in gyro mode so that you can also paint. To indicate this gyro mode, the letter "G" is displayed above the symbol. The symbol color is then of course no longer current as it changes with each tilt angle. If the Magic Tube is now switched off and switched on again, the previously programmed color appears again.



Press and hold the button until OK, then 'Click for Display' appears



horizontally



Now press the button briefly and select the color e.g. blue by tilting it, hold the position and press the button long until SAVED appears.



Feature: If the color is not saved, this program slot remains in the gyro color selection mode with an undetermined color, but marking G

How is the end cap light programmed?

The program slots that have a bright white dot are preassigned with a specific pulse and pause duration, but can be programmed.

A few program slots cannot be programmed, which is indicated by a slightly gray dot.

Programming is done using the red, green, blue and white buttons.

If you press the respective button and hold it down, the red word "STOP" appears in the display. After a few seconds, the word "OK" also appears. Now you can release the button and the text "Click for Display" and e.g. "P5 Gyro Mode" will appear in the display if you have long pressed the red button in the P5 program. Now briefly press the button again, e.g. Red in P5, then the Magic Tube will become active in gyro mode and the end cap will flash faster and slower depending on the inclination of the Magic Tube. The pulse pause is adjusted by turning the Magic Tube left and right, all from the wrist, as if you were screwing in a screw.

Up to 45 degrees tilted down it becomes slower, all the way down is the slowest, up to 45 degrees up it becomes faster and vertically up is the fastest.

Tilting/turning the Magic Tube to the left reduces the pulse pause and tilting/turning it to the right increases the pause.

Once the desired pulse pause has been reached, a long press on the button until the word "Saved" is displayed is sufficient to save the setting.

If you stop before saving, it will not be saved, but the Magic Tube will remain in gyro mode so that you can also paint. If the Magic Tube is now switched off and switched on again, the previously set/programmed pulse-pause setting appears again.



- 1) Press and hold the button until OK, then 'Click for Display' + "Px Gyro Mode" appears.
x = number of the program



- 1) Now press the button briefly and select the length of the pulse and the pause by tilting and rotating, hold the position and the Press and hold the button until SAVED appears.

Feature: If the color is not saved, this program slot remains in the gyro end cap setting mode

More settings:

- 1) **The home screen with the asterisks** can be turned on and off if the red button is pressed, held and then turned on before turning on.
- 2) **The programmable colors at P1 to P4** can be reset to the default colors if the green button is pressed, held and then turned on before power on.
- 3) **The programmable pulse-pause values** can be reset to the default values if the blue button is pressed, held and then switched on before switching on.
- 4) **The white button turns off** the LED strips so only the end cap strobe is active.
Hold down the white button, switch on the tube, the LED strips are now deactivated.
The end cap strobe is still programmable!
Pressing and holding again when switching on the tube activates the LED strips again.

How is the Magic Tube loaded?



The power bank is charged with the included USB charging cable; the charging status is displayed via the LEDs on the power bank

The built-in USB-C interface of the Magic Tube can NOT be used to charge the power bank!