



	<p>LED-23</p> <p>19 charlieplexed LEDs forming the number “23”. Several pre-programmed effects & animations.</p> <p>• Size approx. 56 x 38 mm • Pre-programmed microcontroller (ATtiny11 or ATtiny13) • Battery not included (9 V block needed)</p> 	<p>Difficulty: very easy</p> <p>SMD: no</p> <p>LED: red & yellow</p> <p>5,– €</p>
	<p>LED Arrow 4049</p> <p>31 LED arrow with light chaser effect in the arrow's direction.</p> <p>• Size approx. 70 x 53 mm • Logic ICs only (no microcontroller). Not programmable! • Some SMD components on the back (size 0805) • Battery not included (9 V block needed)</p> 	<p>Difficulty: easy</p> <p>SMD: some</p> <p>LED: red</p> <p>5,– €</p>
	<p>RetroBlink</p> <p>5x5 grid of 5 mm LEDs displaying 1023 pseudo-random patterns in a sequence.</p> <p>NEW</p>  <p>• Size approx. 90.2 x 90.2 mm • Transistor circuit (no ICs). Not programmable! • Speed (time per pattern) adjustable • Micro-USB port for power supply (or any other 5 V source) • Front bezel not included (OpenSCAD and STL files for 3D printing available)</p>	<p>Difficulty: fairly easy (but requires a lot of patience)</p> <p>SMD: no</p> <p>LED: various (mix & match)</p> <p>10,– €</p>
	<p>DUCK 75%</p> <p>34 yellow 5 mm LEDs in duck shape with speaker. Quacks when the button is pressed.</p> <p>NEW</p>  <p>• Size approx. 82.6 x 64.8 mm • Pre-programmed controller (STC8G1K08) • Animations programmable (UART bootloader) • Sound replaceable (< 200 ms, UART bootloader) • Batteries not included (3x AA needed)</p>	<p>Difficulty: easy</p> <p>SMD: no</p> <p>LED: yellow</p> <p>10,– €</p>
	<p>DUCK Mini</p> <p>A smaller version of the above duck (2/3 the size) and using SMD components.</p>  <p>• Size approx. 56 x 43 mm • Pre-programmed controller, sound replaceable • Two versions (depending on availability): • OTP microcontroller (PMS152) + EEPROM for sound • ARM microcontroller (PY32F002A) • Batteries not included (3x AAA needed)</p>	<p>Difficulty: fairly easy</p> <p>SMD: yes</p> <p>LED: yellow</p> <p>10,– €</p>



BlinkenArea Kits

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The projects below use the “BlinkenPlus” firmware. It supports playing animation files from an **MMC/SD/SDHC card** (FAT16 or FAT32, file formats BIN, BBM, BLM and BML described in the BlinkenArea wiki) or an RS232 or USB (using a virtual serial port) **MCUF stream** (simple format, documented in the BlinkenArea wiki). They also output a stream of all displayed frames (regardless of source), so one project can act as a master for others (if they have the same resolution).

Animation files can be created with “Blimp”, a “Paint”-like GUI where you can draw and set the display duration for each frame. Alternatively you can use the available converters from “BlinkenLib” and the “bl” **output plugin for mplayer**, or write your own scripts that generate BlinkenStreams or BlinkenMovies.

	<h3>TicTacLights Nano Colour</h3> <div><div>Workshop on Day 2, 18:00~24:00 (buy the kit to sign up)</div><div>Workshop: </div></div> <p>Tiny BlinkenLights clone (18 x 8 = 144 pixels, aspect ratio 0.55) with size 0404 (1 x 1 mm) RGB LEDs. Fits into a mini TicTac box.</p> <p>Reflow soldering required (for LEDs and ICs). A few stencils are available from BlinkenArea.</p>  <ul style="list-style-type: none">• Size: approx. 31 x 20 mm, doesn't tile• Plays animations from Micro-SD card or USB stream• Powered from rechargeable LiPo battery (included!)• Pre-programmed microcontroller (ATmega162)• Micro-USB cable included• Clear Mini TicTac box included	<p>Difficulty: very difficult, steady hand and many hours of patience required</p> <p>SMD: 0.5 mm</p> <p>LED: RGB</p> <p>45,— €</p>
	<h3>ArcadeNano Colour</h3>  <p>ARCADE clone (26 x 20 pixels = 520 pixels, aspect ratio 0.5) with size 0404 (1 x 1 mm) RGB LEDs. Fits into a regular TicTac box.</p> <p>Reflow soldering required (for LEDs only). You will need to order (or make) your own stencil.</p> <ul style="list-style-type: none">• Size: approx. 33 x 57 mm (fits into a regular TicTac box)• Plays animations from Micro-SD card or USB stream• Pre-programmed microcontroller (ATmega644)• Powered from USB or other 5 V source• Mini-USB cable included• Add-on board for LiPo battery available as an option (fits inside the box behind the main PCB, battery not included)	<p>Difficulty: extremely difficult, can take several days to make and debug</p> <p>SMD: 0.65 mm</p> <p>LED: RGB</p> <p>80,— €</p>

More Information:

BlinkenPlus Firmware

<https://wiki.blinkenarea.org/index.php/BlinkenPlusEnglish>



File formats

<https://wiki.blinkenarea.org/index.php/FileFormats>



Stream Format

<https://wiki.blinkenarea.org/index.php/MicroControllerUnitFrameEnglish>

