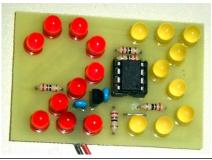


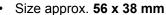
# BlinkenArea Kits **Page 1/2**





#### **LED-23**

19 charlieplexed LEDs forming the number "23". Several pre-programmed effects & animations.



- Pre-programmed microcontroller (ATtiny11 or ATtiny13)
- Battery not included (9 V block needed)



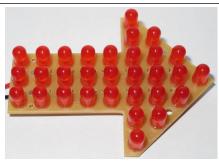
Difficulty: very easy

SMD: no

LED:

red & yellow

5,–€



### LED Arrow 4049

31 LED arrow with light chaser effect in the arrow's direction.

- 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)

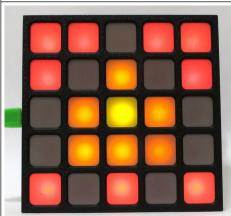


Difficulty: easy

SMD: some

LED: red

5,–€



# RetroBlink

5x5 grid of 5 mm LEDs displaying 1023 pseudo-random patterns in a sequence.

- 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)



(but requires a lot of patience)

Difficulty: fairly easy

SMD: no

LED: various (mix & match)

10,–€



# **DUCK 75%**

34 yellow 5 mm LEDs in duck shape with speaker. Quacks when the button is pressed.

Size approx. **82.6 x 64.8 mm** 





Difficulty: easy

SMD: no

LED: yellow

10,–€



## Batteries not included (3x AA needed)

**DUCK Mini** 

A smaller version of the above duck (% the size) and using SMD components.

Pre-programmed controller (STC8G1K08) Animations programmable (UART bootloader)

Sound replaceable (< 200 ms, UART bootloader)



- 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)



Difficulty: fairly easy

SMD: yes

LED: yellow

10,–€





# BlinkenArea Kits Page 2/2



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.

# TicTacLights Nano Colour

Workshop on Day 2, 18:00~24:00 (buy the kit to sign up) Workshop:

Difficulty: very difficult, steady hand and many hours of patience required

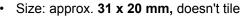
SMD: 0.5 mm

LED: RGB

45,-€

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.

Reflow soldering required (for LEDs and ICs). A few stencils are available from BlinkenArea.



- 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

## ArcadeNano Colour

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.



You will need to order (or make) your own stencil.

- 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)



Difficulty: extremely difficult, can take several days to make and debug

SMD: 0.65 mm

LED: RGB

80.–€

## BlinkenPlus Firmware

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



### More Information:

# **File formats**

https://wiki.blinkenarea.org/index.php/ **FileFormats** 



# **Stream Format**

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

