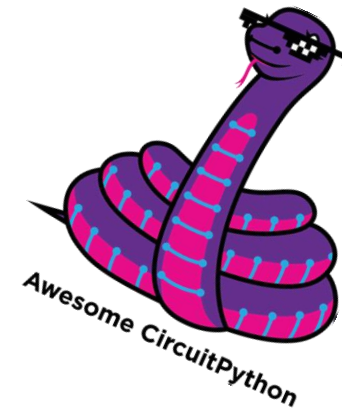# PewPew

Noc Informatyka 2019
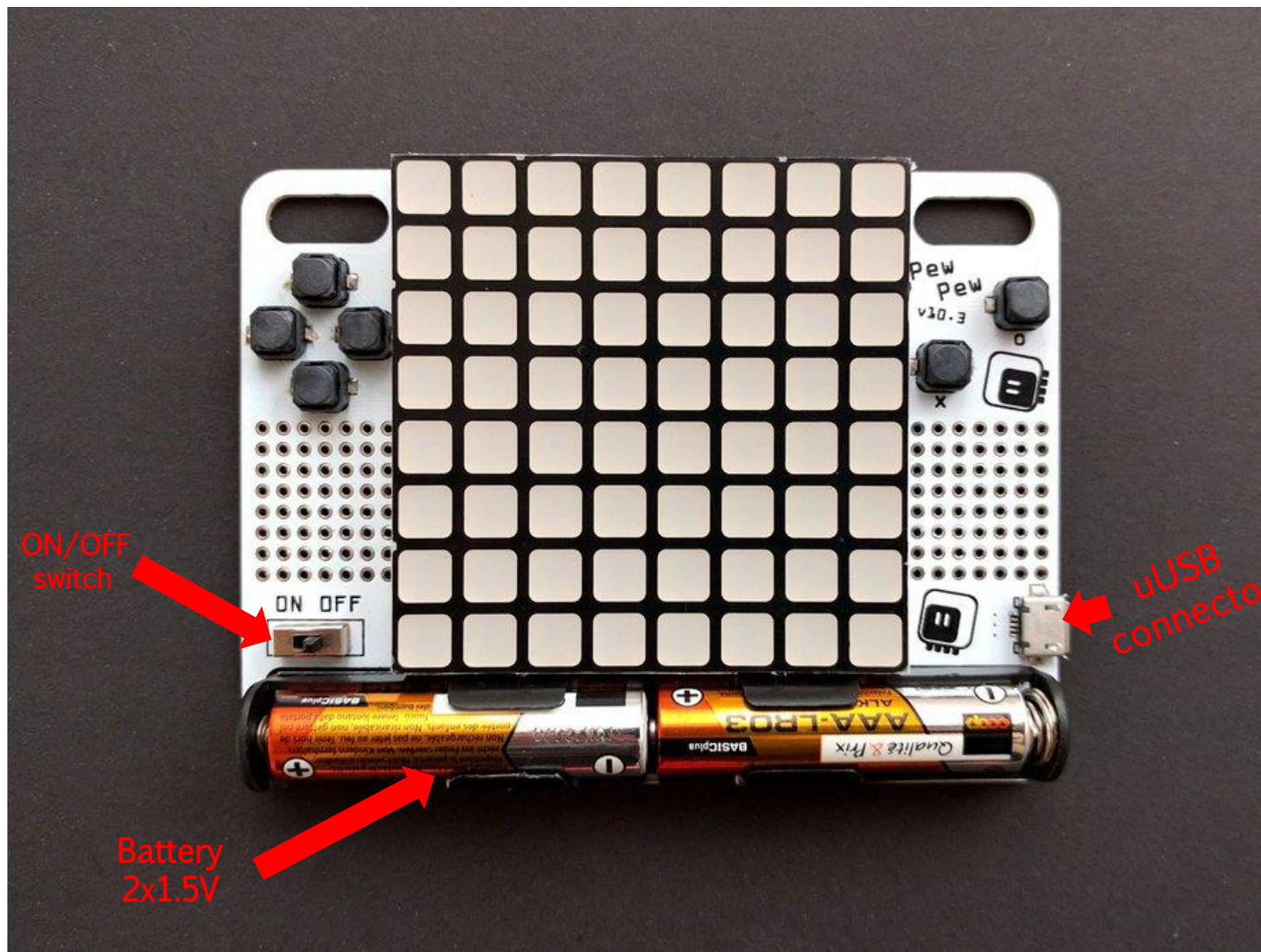
PewPew Python Boards
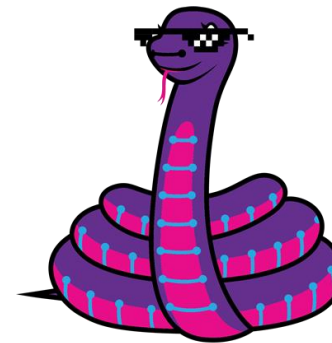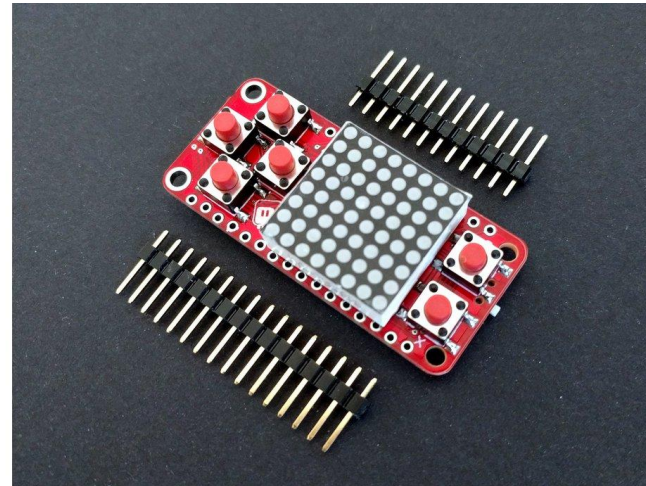
PewPew Equipment

PewPew Buttons
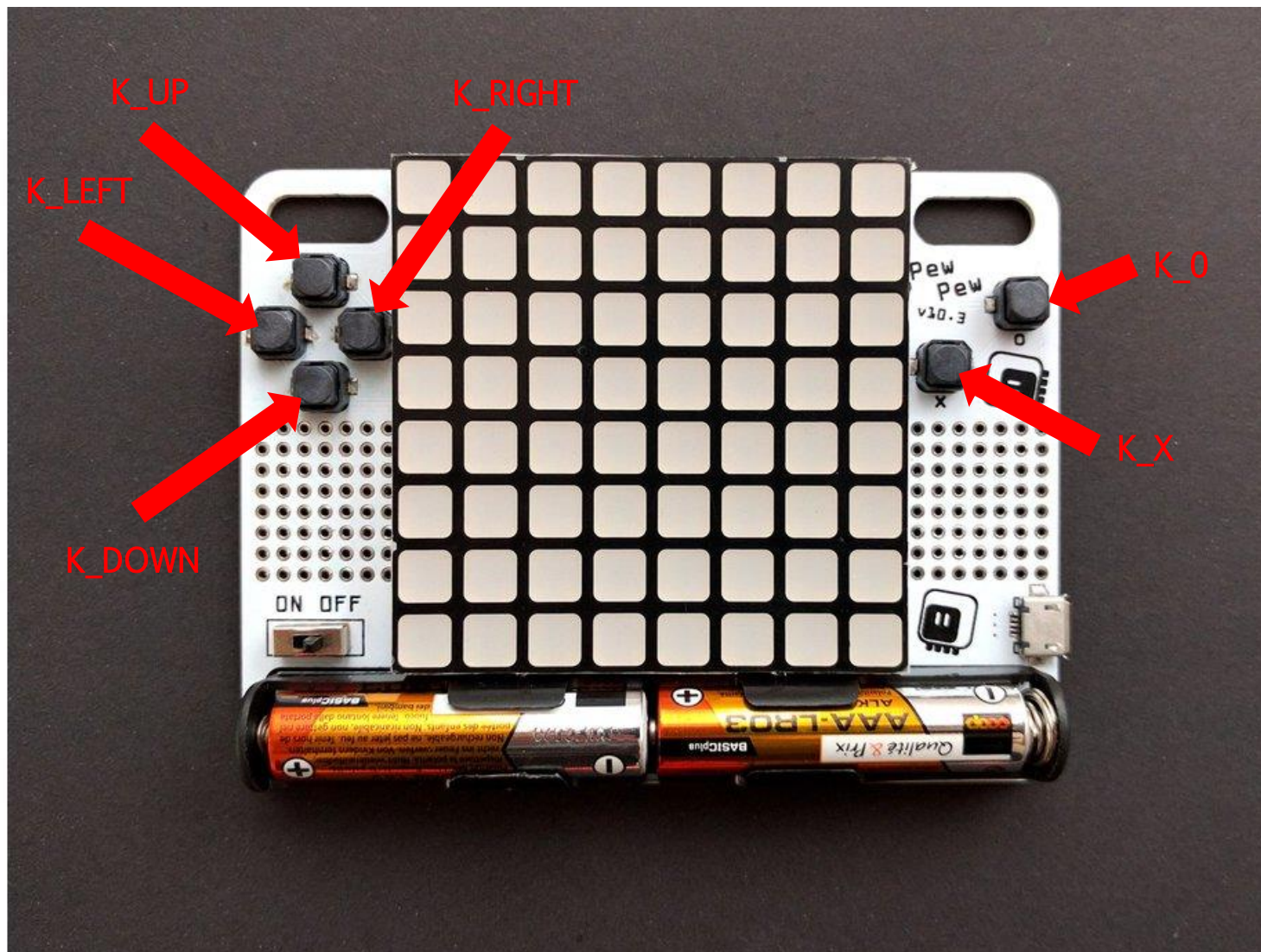
PewPew Matrix 8x8 pixels

Pixel (0,0)

Pixel (7,7)
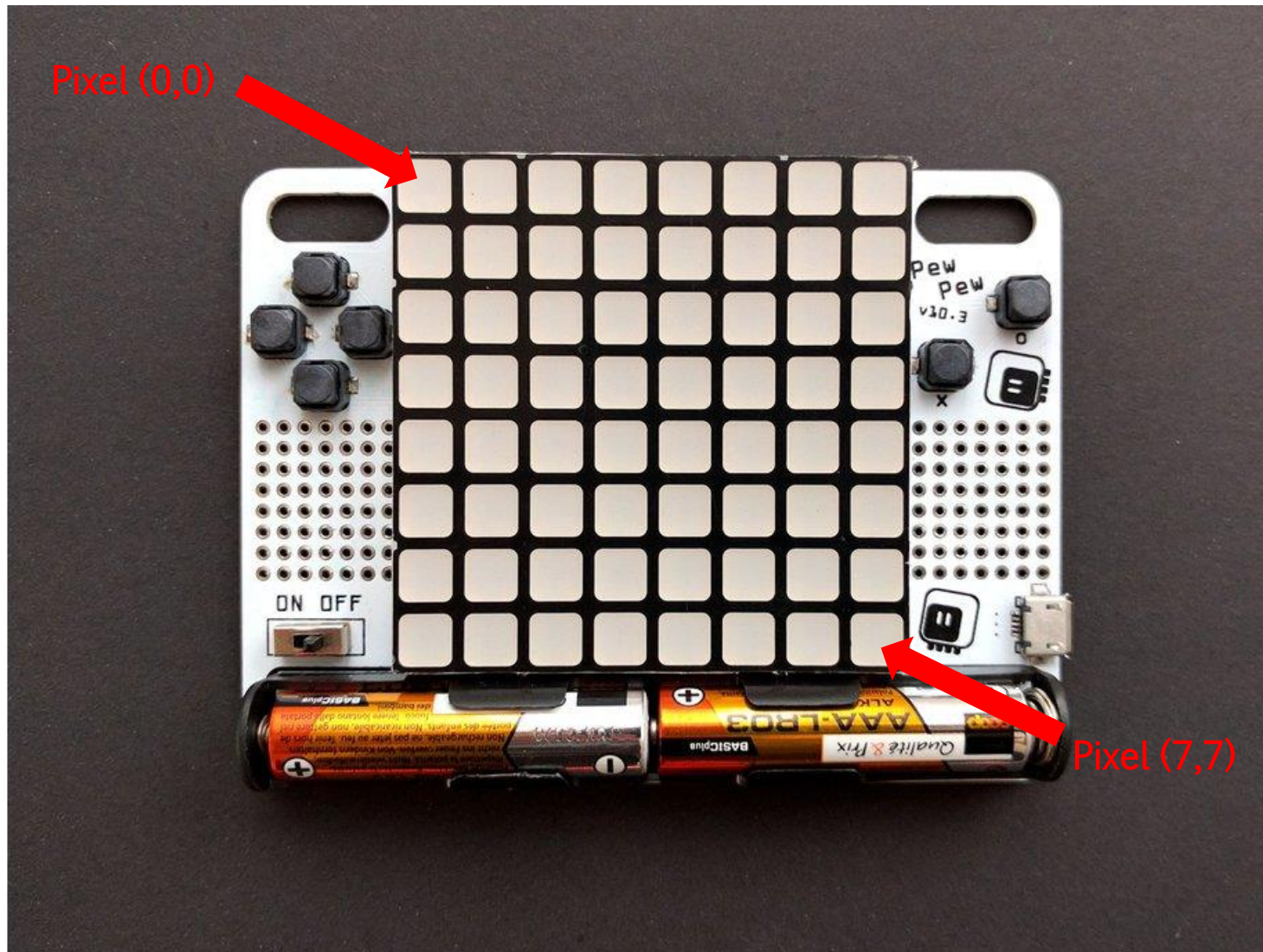
How to use PewPew?

1. Connect PewPew to your computer
2. Check new disk
3. Create in new disc "code.py"
4. Open file and write code
5. Save file
6. See the result on the PewPew

PewPew Library Reference

pew.**init**()

Initialize the module.
This function switches the display on and performs some basic setup.

pew.**brightness**(*level*)

Set the brightness of the display, from 0 (minimum) to 15 (maximum).
On devices that don't support varying the brightness this does nothing.

pew.**show**(*pix*)

Show the provided image on the display, starting at the top left corner.
You will want to call this once for every frame.

pew.**keys**()

Retur a number telling which keys (or buttons) have been pressed since the last check. The
number can then be filtered with the & operator and the
K_X, K_DOWN, K_LEFT, K_RIGHT, K_UP, and K_O
constants to see whether any of the keys was pressed.

pew.**tick**(*delay*)

Wait until delay seconds have passed since the last call to this function.
You can call it every frame to ensure a constant frame rate.

class pew.**Pix**(*width=8, height=8, buffer=None*)

Pix represents a drawing surface, width pixels wide and height pixels high.
If no buffer is specified for storing the data, a suitable one will be automatically created.

classmethod **from_iter**(*cls, lines*)

Creates a new Pix and initialzes its contents by iterating over lines and then over individual pixels in each line.
All the lines have to be at least as long as the first one.

classmethod **from_text**(*cls, text, color=None, background=0, colors=None*)

Creates a new Pix and renders the specified text on it. It is exactly the size needed to fit the
specified text. New lines and other control characters are rendered as spaces.

If color is not specified, it will use yellow and red for the letters by default. Otherwise it will use
the specified color, with background color as the background.

Alternatively, colors may be specified as a 4-tuple of colors, and then the color and background
arguments are ignored, and the four specified colors are used for rendering the text.

pixel(*self, x, y, color=None*)

If color is specified, sets the pixel at location x, y to that color. If not, returns the color of the
pixel at that location. If the location is out of bounds of the drawing surface, returns 0.

box(*self, color, x=0, y=0, width=self.width, height=self.height*)

Draws a filled box with the specified color with its top left corner at the specified location and of the specified size.
If no location and size are specified, fills the whole drawing surface.

blit(*self, source, dx=0, dy=0, x=0, y=0, width=None, height=None, key=None*)

Copied the source drawing surface onto this surface at location specified with dx and dy.
If x, y, widht and height are specified, only copies that fragment of the source image, otherwise copies it whole.
If key color is specified, that color is considered transparent on the source image, and is not copied onto this drawing surface.

Example

We will make it start at coordinates 0, 0, and we will draw it with color 3, which is the brightest:

```python
import pew


pew.init()
screen = pew.Pix()
x = 0
y = 0
while True:
    screen.pixel(x, y, 3)
    pew.show(screen)
    pew.tick(1/12)
```

Reference:

- https://pewpew.readthedocs.io/en/latest/index.html
- http://blog.oshpark.com/2018/09/02/pewpew-python-based-micro-game-console/
- https://blog.europython.eu/post/185584014022/europython-2019-warning-spoiler-alert
- https://blog.adafruit.com/2019/06/14/europython-2019-spoiler-attendees-getting-circuitpython-powered-pewpew-game-consoles-circuitpython-badgelife-gaming-python-europython-deshipu/
- https://www.tindie.com/products/deshipu/pewpew-lite-featherwing/
- https://zszywka.pl/p/--19589389.html
- https://pewpew.readthedocs.io/en/latest/pew.html

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