WORKSHEET
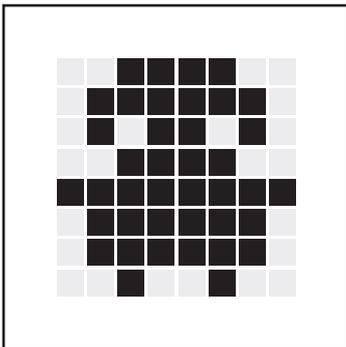# W001
PIXELIMAGE

We are going to write our first program.

EXERCISE

Draw a monochrome Roboxo on your Oxocard.

MATRIX

Draw monochrome image   1×

x   0

y   0

Delete all pixels   1×

TIME

Wait   10000   milliseconds   1×

HINT

Think about the logical order of how you can use the available blocks to click them together.

ADDITIONAL TASK: +

Create different pixel images, for example a heart, a dog or a deer.

WORKSHEET
W001
PIXEL IMAGE

SOLUTION
PROPOSED SOLUTION

Draw monochrome image

x 0
y 0

Wait 10000 milliseconds

Delete all pixels

ADDITIONAL TASK
PROPOSED SOLUTION

Draw monochrome image

x 0
y 0

Wait 10000 milliseconds

Delete all pixels

OXON – 2019

WORKSHEET W001
PIXEL IMAGE

Learning objective:
Capacity to put the most basic blocks in a logical order to display a pixel image.

WHAT TO DO

1.
With the help of the «Draw monochrome image» block the first pixel image can be designed. The standard color of the Oxocard is blue.

2.
Afterwards comes the «Wait»-block, such that we can display the image for a given amount of time. Without this block the image would only be displayed for a fraction of a second.

3.
At the end of our first program we delete the pixel image with the command «Delete all pixels» to restore the initial state. This step is not necessary in this program because the Oxocard turns off anyways. However, the principle draw - wait - delete is very important and will be essential as soon as we cover animations.

NEW COMMANDS

Wait 10000 milliseconds

«Wait × milliseconds». This command makes the Oxocard wait for a given amount of time.
(1000 milliseconds = 1 second).

Draw monochrome image
x 0
y 0
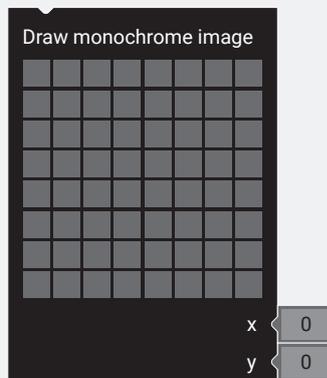
This block simulates the pixels of the Oxocard. The pixels can be turned on (bright) and off (dark) through a mouse-click.
In fact, the previously set color or the standard color (RGB: 0, 167, 227) will be displayed. Optionally, the x and y parameters can be used to draw the image with a position offset.

Delete all pixels

The block «Delete all pixels» gives the instruction to turn off all LEDs.
It is especially needed when it is necessary to prevent that two successive images can be drawn on top of each other.