



Xploris

One stop shop for k-6 STEAM

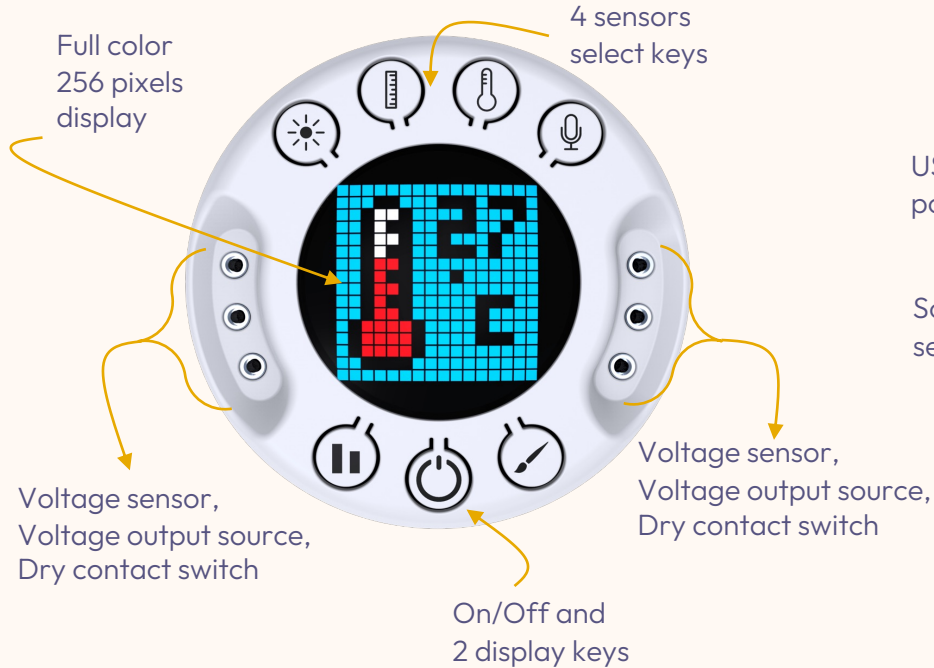


Unique STEAM solution

Xploris does it all: An orchestra of STEAM learning in a compact, hand-held disc



Xploris – ports and controls



Hardware features



Sensing & Data logging

- 5 sensors: Light, Temperature, Sound, Distance, Voltage.
- Displaying numeric sensor value and sensor bar graph.



Art

- 16x16 RGB LED matrix.
- Using the full color pixel matrix for creating graphics and animations.



Coding

- Internal processor directly supporting Python and Blocks.

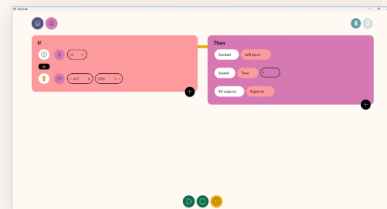
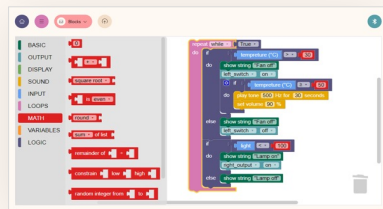
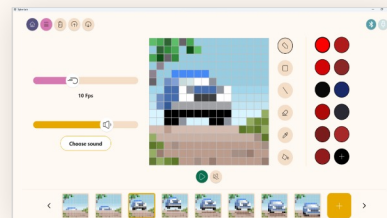
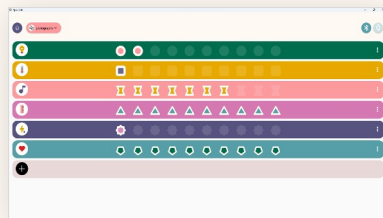


Control

- 2 on/off outputs.
- 2 voltage output.
- 2 servo engine outputs.

XploriLab - full suite of STEAM apps

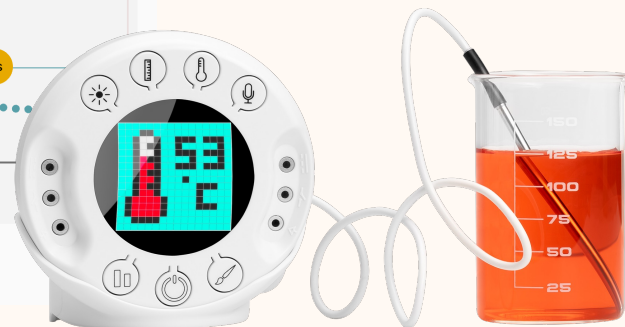
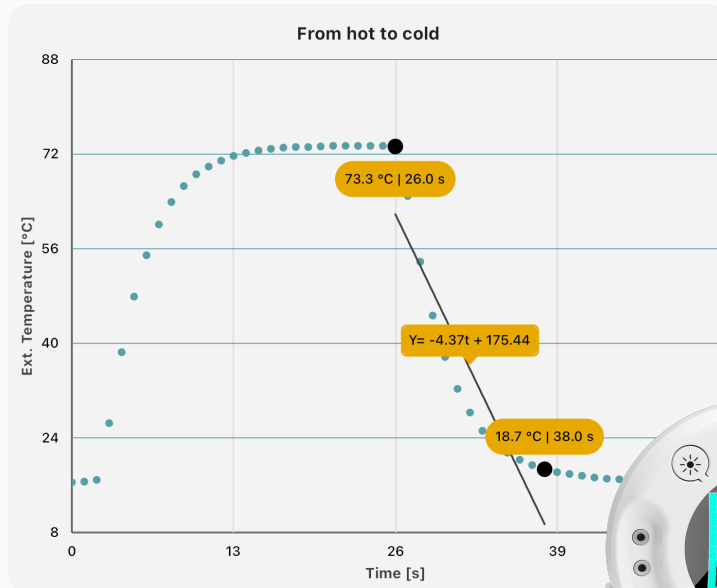
Science sensing, datalogging, coding, control and art.



For science & math



Time (s)	Ext. Temperature (°C)
43.00	17.1
44.00	17.0
45.00	16.8
46.00	16.7
47.00	16.6
48.00	16.5
49.00	16.5
50.00	16.4
51.00	16.4
52.00	16.3



For coding



BASIC

OUTPUT

DISPLAY

SOUND

INPUT

LOOPS

MATH

VARIABLES

LOGIC

repeat while True

do

if light [lux] < 300

do

right_switch on

display 

else

right_switch off

do

count with j from 0 to 15 by 1

do

count with k from 0 to 15 by 1

do

if sound [dB] < 75

do

plot j k 

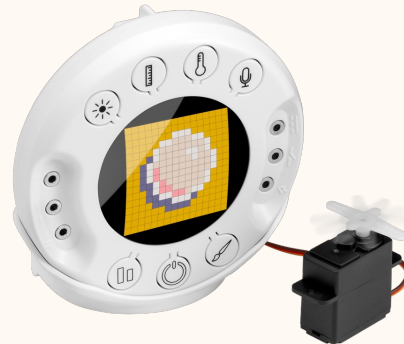
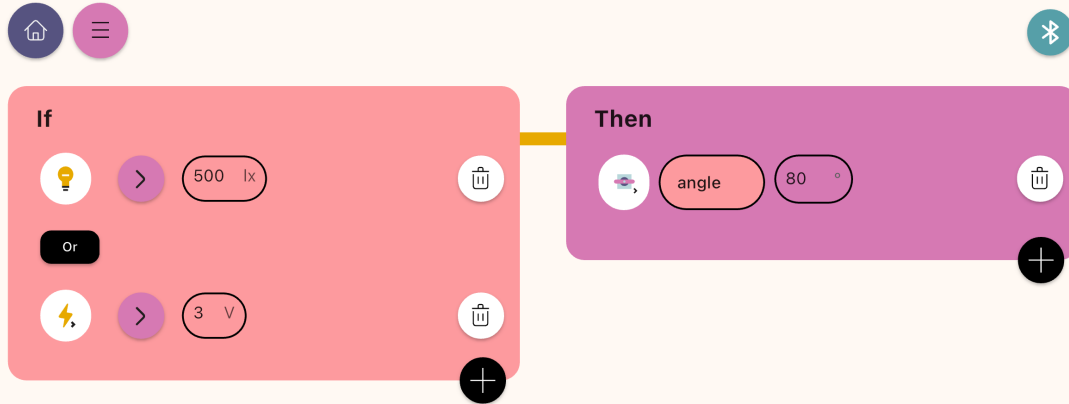
else

plot j k 

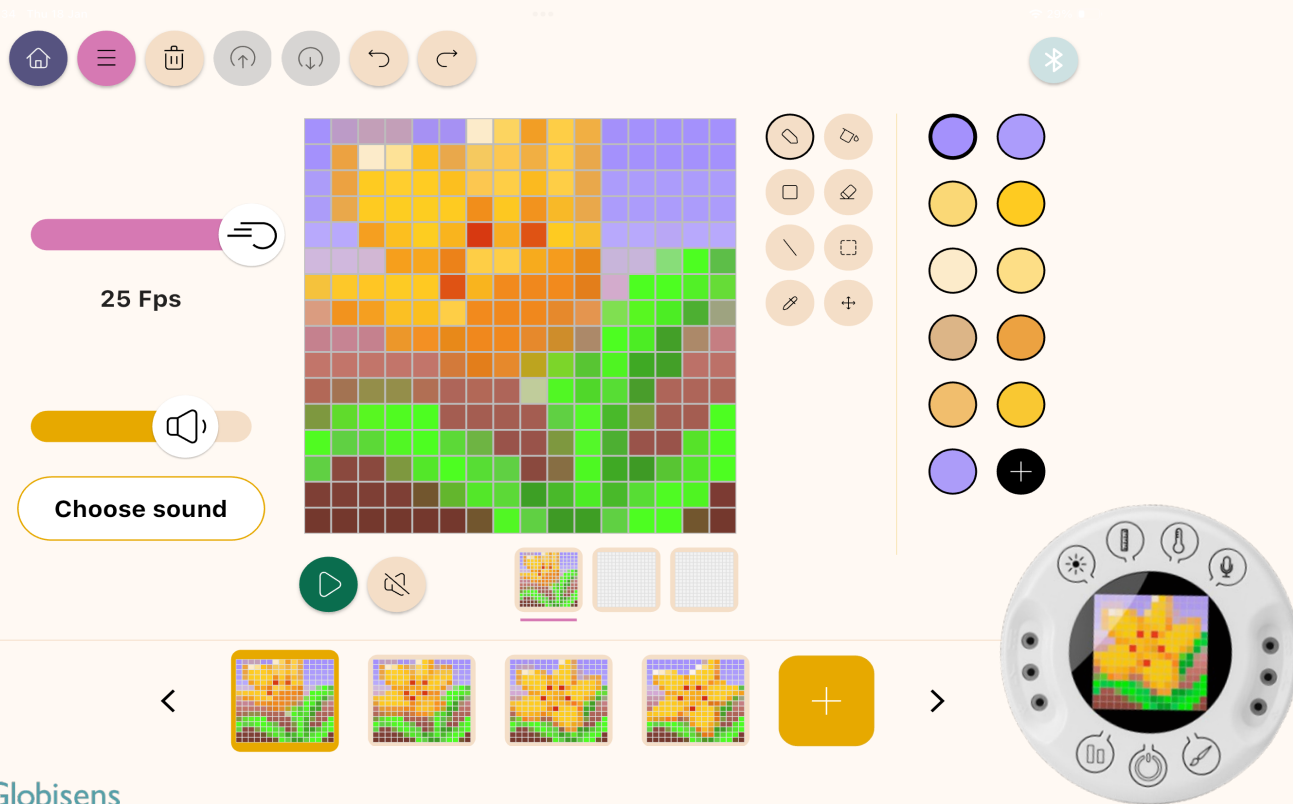
do



For control & engineering



For art



Pedagogic coverage

Full integration of all STEAM subjects



Science & Math

- **Data visualization:** gauges, pictographs, bar graphs, tables, line graphs.
- **Data analysis:** markers, annotations, linear regressions, Export to EXCEL.



Coding

- **Platforms:** Blockly, and Python editor.
- **Covering:** data types, variables, logical operators, If/else conditions, loops, Input and output operations.



Art

- **Introduction to:** colors, drawing, pixel art and character creation.
- **Covering:** frame by frame animation, shapes and geometry, sensors and code controlled animation.



Control

- **Method:** sensors based output levels.
- **Controlling:** animation speed, servo speed, servo angle, contact open/close, 5V output on/off.



Xploris offers students an integrated end-to-end STEAM experience, from creating a pixel art flower animation to apply coding that opens the flower's leaves when sunlight is projected on a light sensor”

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

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Thank you!