



xploris™

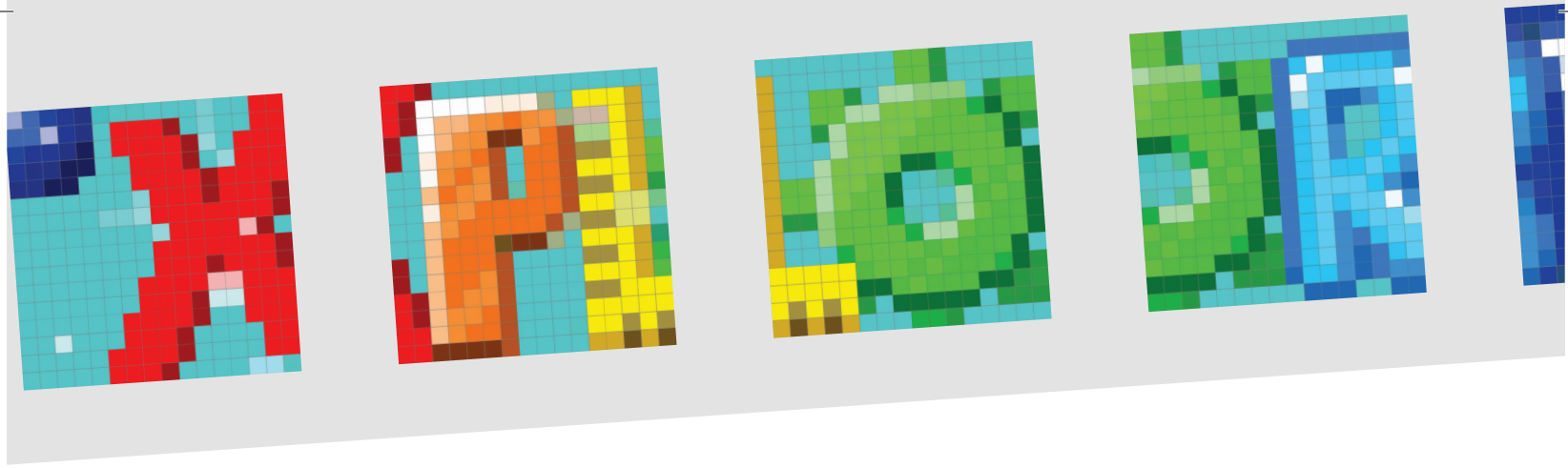
THE WORLD'S FIRST INTEGRATED SOLUTION FOR CODING, SCIENCE, MATH AND ART

From creating a pixel art flower animation to coding that opens the flower's leaves when sunlight is projected on a light sensor, Xploris does it all!



AN ORCHESTRA OF STEAM LEARNING

- Seamless integration of all STEAM disciplines
- Wireless, fully featured, fits in the palm of your hand
- Full suite of lesson plans for Science, Math, Control, Coding and Art
- Rich, colorful, easy to use and engaging software
- A Cloud-based repository for collaboration and sharing



XPLORIS – ONE DEVICE DOES IT ALL!

Despite its small size and unassuming appearance - the Xploris is a powerful tool, packed with the latest modern electronic enabling full coverage of k-6 science, datalogging, art/multimedia and control.

Xploris 5 Built-in sensors, measuring temperature, light, sound, distance and voltage are all calibration free and ready to use on turn on.

Based on an ARM® Cortex®-M4 Microcomputer Xploris will smoothly run animations, play sound tracks, sample all sensors level and run Python command through its Micro-Python interpreter.

Xploris offers both USB and Bluetooth low energy communication, enabling a wire free connection to the XploriLab software, while maintaining low power consumption from its internal battery.

Xploris carries a large storage of up to 80,000 sensor samples, and up to 1,800 full screen images or 30 animations.

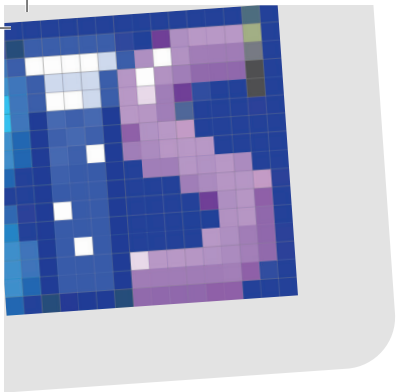
Through a set of 6 Banana sockets on the front of the Xploris and 2 servo outputs at the back of the device, users are able to output voltage, close internal switch and even control small robotics servo engines.

Xploris - all-in-one that does it all!



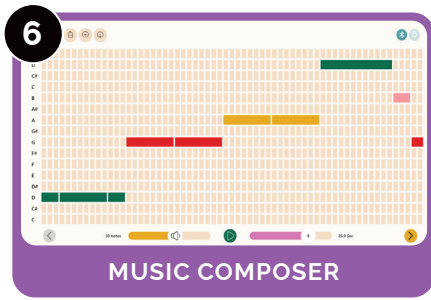
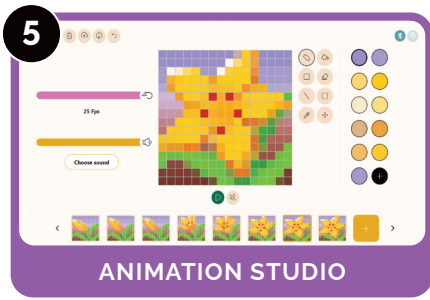
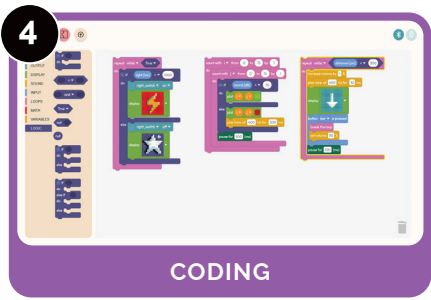
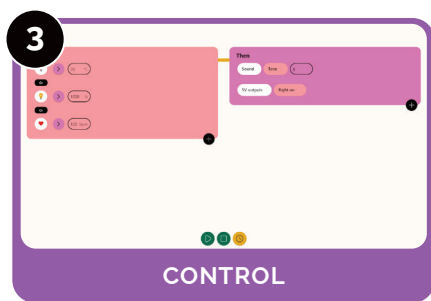
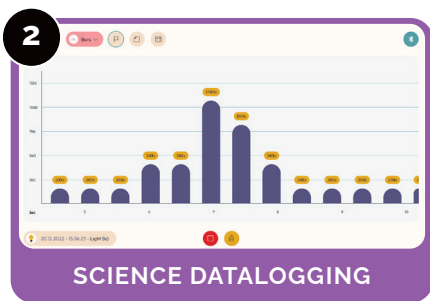
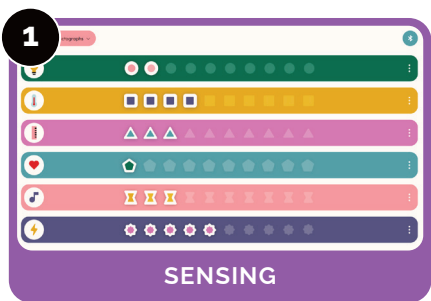
Class set of a charging station and 6 Xploris units





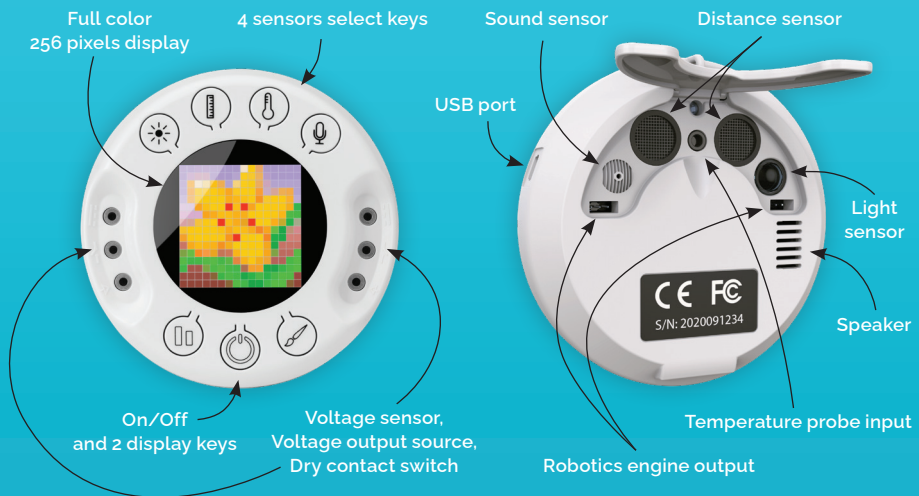
XPLORILAB SOFTWARE

Designed with the Latest Google Flutter platform – XploriLab is consolidating 6 different software modules to deliver an integrated STEAM experience to k-6 students.



Xploris-based robot

XPLORIS PORTS AND CONTROLS





HARDWARE PARAMETERS	DESCRIPTION
SCIENCE DATA LOGGING	
Built-in Accessible Sensors	5 built in sensors: temperature, light level, sound level, distance and voltage
Max. Sampling Speed	100/s
Sampling Resolution	12-bit
Measurement memory size	80,000 samples
Display type	Numeric data, bar graph
Remote Data Collection	Yes
CONTROL OUTPUTS	
Open Collector switches	2 x Open Collectors outputs able to switch up to 1A
Voltage outputs	2 x 5V @ 100mA
Servo engine drivers	2 x PWM servo engine drivers
ART	
Image memory size	30 animations, 60 frames each, or 1800 still images
Display type	16x16 pixels images and animations
Music composing	1.5 octaves, up to 126 notes
GENERAL	
Display	Full color LED dot matrix 16x16 pixels
Communication	USB 2.0, Bluetooth 4.2
Speaker	0.7W 8 ohm
Keypad	7 keys
Internal Rechargeable Battery	LiPO 3.7V
Battery Life	Up to 12 hours
Size	d = 104mm, H = 30 mm
Weight	140gr.
Temperature Range	-10 to 50 °C
Standard Compliance	CE, FCC

SOFTWARE PARAMETERS	DESCRIPTION
CODING	
BLOCKLY / SCRATCH editor	Data types, variables, logical operators, if else conditions, loops, input and output operations
Python editor	Python editor, Blocks to Python
Code flashing	Flash the created code to the XPLORIS via USB/BT
SENSING & DATA LOGGING	
Data Retrieval	Real time up to 100 samples per second, or download Xploris stored data
Display for k-6	Real time gauges and pictograph
Data Display	Line graphs, bar graphs, tables
Data Logging Configuration	Sensor selection, sampling rate, sampling points
Graph Manipulation	Placing and moving up to two markers on the graphs, zoom in/out, graph cropping, graph color change
Graph Annotation	Adding text and images to the graph
Functions	Linear regression, average, derivative and statistics
CONTROL	
Inputs	Light, distance, temperature, sound, voltage
Conditions	Sensor level: greater, smaller, between, rising above, falling below a user defined value
Outputs	Animation speed, servo speed, servo angle, left contact open/closed, right contact open/closed, left 5V on/off, right 5V on/off, sound tones and ringtones
ART	
Drawing tools	Pencil, color selection, color duplicator, line, rectangle, color fill panning
Animation tools	Duplicate image, image speed change, add sound track
Animation layers	Supports 3 layers for each animation frame
Music composing	16 notes, 1.5 Octaves, creating compositions of up to 126 notes long
image flashing	Flash an image or animation via USB/BT, to be displayed on XPLORIS display
OS	Windows 11, MacOS, Android, iOS

ABOUT GLOBISENS

Globisens is a global leader in hands-on STEAM learning solutions, empowering students with products like the Labdisc and Xploris to explore science, technology, engineering, art, and math through real-world experiments. With over 150,000 devices installed in more than 30 countries and 20 languages—and 8 international gold awards—Globisens brings cutting-edge technology and engaging learning tools to classrooms worldwide.



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