mimio® STEM

by Boxlight®

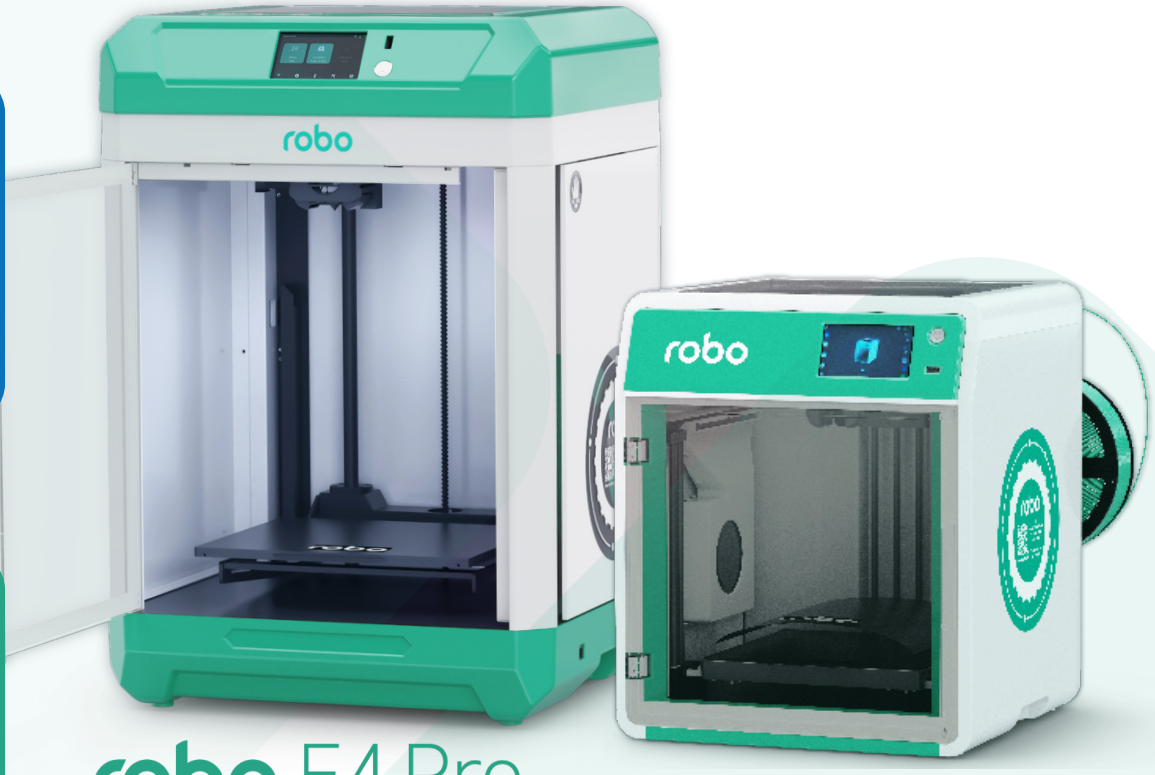
MimioSTEM solutions open the door to inquiry-based learning in all four STEM fields: science, technology, engineering, and mathematics. Consistently, simply, and quickly make STEM part of your everyday lessons with Robo 3D printers, Labdisc all-in-one Science Labs, and Xploris, a comprehensive STEAM device for K-5. Each of our MimioSTEM solutions are coupled with MyStemKits, a K-12 STEM curriculum platform based on research, thatprovides everything you need to use your STEM products successfully and effectively in your classrooms.

boxlight.com/stem

robo

3D Printer Packages Built for Education:

Everything you need to be successful in an educational environment.



robo E4 Pro
Large Volume Professional 3D Printer

robo E4
High-Speed 3D Printer

INCLUDED WITH EVERY ROBO 3D PRINTER PURCHASE:

- **Starter Plan license to MyStemKits.com K-12 integrated 3D printable STEM curriculum** with over 480 lessons and design challenges for implementation into schools.
- Extended **2-year warranty.**
- **2-hour online training**.
- *Teacher* **certification course** (unlimited seats).
- *Student* certification course (unlimited seats).
- **Spare Parts** pack.
- **500g roll of material** (filament).

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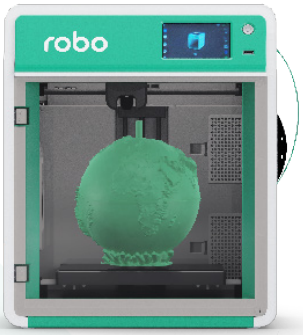
Comparision Chart



Parameters	Robo E4	Robo E4 Pro
Print Size	220 x 220 x 220 (height) mm ~8.7 x 8.7 x 8.7 inch	300 x 250 x 340 (height) mm ~11.8 x 9.8 x 13.4 inches
Machine Size	380 x 400 x 453mm without spool ~14.9 x 15.7 x 17.8 (height) inch	496 x 436 x 696 (height) mm 19.5 x 17.2 x 27.4 inches
Max Print Speed	**600mm/s**	250mm/s
Max Print Temperature	280°C	320°C
Filament	Open source: Recommended: PLA, PETG, TPU Additional Materials: ABS, ASA, PLA-CF, PETG-CF (Some materials may require custom nozzles.)	Open source: Recommended: PLA, PETG, TPU Additional Materials: ABS, PC, PA, HIPS, ASA, PA-CF, PLA-CF, PETG-CF, PETG-GF (Some materials may require custom nozzles.)
Print Bed & Levelling	Heated, Flexible, Automatic Levelling	Heated, Flexible, Assisted Levelling

Both the E4 and E4 Pro have the following specifications:

- **Fully-Enclosed**
- **HEPA Filter**
- **Filament Runout Detection**
- **Power Loss Recovery**
- **Onboard Camera**
- Print via Wi-Fi (2.4 or 5 GHz), Ethernet, or USB Stick
- Full-Color Touch Screen
- Quiet Operation (around 50-60dB)
- 2-Hour **Online Training Course**
- Quick-Removeable Nozzle (0.4mm standard, with additional size nozzles available)
- Free Desktop (PC or Mac) Software RoboPrint and free cloud-printing via RoboCloud
- Compatibility with any 3D design software capable of export .stl files including Tinkercad, Blender, SketchUp, 3DS Max, OnShape, Fusion 360, and more.
- Both Teacher & Student **3D Printing Certification Courses** (unlimited seats)

*Both the E4 and E4 Pro include a **Starter Plan** to **MyStemKits.com**. Choose up to 5 kits from a library of over 250 ready-to-3D print models and over 480 standards-driven lesson plans and design challenges. Ask about bundling in an unlimited plan!*

To learn more, visit mimiostem.com/3D-printers or call 1.866.972.1549.

Labdisc

Portable STEM lab with up to 15 built-in sensors.

INCLUDED WITH EVERY LABDISC PURCHASE:

- **Starter Plan license to MyStemKits.com K-12 integrated STEM curriculum** with lessons for implementation into schools
- **Automatic sensor calibration** for zero set-up time
- **Bluetooth** capability
- Multi-platform Globilab **software**
- **2-hour online training**

Features & Specifications

- *Multi-platform Globilab software included with all purchases. Supported platforms: Standalone, PC, MAC, iOS, Android, Linux, and Chrome OS*
- *Remote Data Logging*
- *12-bit Sampling Resolution*
- *Internal Memory Storage: 128,000 Samples*
- *Internal LIPO 3.6V Rechargeable Battery*
- *Over 150 Hour Battery Life*
- *Graphical LCD Display, 64 x 128 pixels*
- *USB 2.0 Connection*
- *Wireless Bluetooth V2.0 Communication*
- *Automatic Sensor Testing and Calibration*
- *Size: 132mm Diameter, 45mm Height*
- *Weight: 300 grams*
- *Temperature Range: -10 to 50°C*
- *CE & FCC Compliant*
- *External Power Supply: 100-240V AC/12V DC 1A*

EDTECH BREAKTHROUGH AWARD 2022 · AWARDS OF EXCELLENCE winner! TECH LEARNING · Intel® Education Alliance · WINNER e-learning awards 2013 · bett AWARDS 2018 FINALIST · COOL TOOL AWARD 2017 WINNER digital digest · GOLDEN MEDAL 2017 · EXCELLENCE IN EQUITY 2022 WINNER Boxlight MimioSTEM · worlddidac AWARD 2012 · CHRISTIAN SCHOOL PRODUCTS Top Products of the Year 2022 · THE EDTECH AWARDS TRENDSETTER FINALIST 2023

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Labdisc

Comparison Chart




SENSORS						Available
	Sensor	GenSci	Biochem	Enviro	Physio	Add On
a	Accelerometer				X	X
	Air Pressure	X	X		X	
INT.	Ambient Temperature	X	X	X	X	
	Barometer		X	X		
	Colorimeter		X	X		
	Conductivity		X			
A	Current	X			X	X
	Distance	X			X	
DO_2	Dissolved Oxygen		X* Probe Sold Separately	X* Probe Sold Separately		
EXT.	External Temperature	X	X	X	X	X
GPS	GPS	X	X	X		
	Heart Rate		X			X
IR	Infrared			X		
	Light	X	X		X	
V x10	Low Voltage				X	
	Microphone	X			X	
pH	pH	X	X	X		
	Relative Humidity	X	X	X		
	Sound Level	X		X		
	Thermocouple		X			
	Turbidity		X	X		
UV	Ultraviolet Light			X		
	Universal Input	X	X	X	X	
V	Voltage	X			X	X
UNIQUE FEATURES						
Maximum Sampling Speed		24,000/s	100/s	10/s	24,000/s	

Additional add-on sensor options include the folllowing: *External CO2 Sensor, External Respiration Sensor, Magnetic Field Sensor.*

xploris

An All-in-One Integrated STEAM Solution for K-5 Learners

NEW!

INCLUDED WITH EVERY XPLORIS PURCHASE:

- **Starter Plan license to MyStemKits.com K-12 STEAM curriculum** platform.
- Multi-platform XploriLab **software** (see reverse).
- **2-hour online training.**
- **5 built-in sensors:** temperature, light, sound, distance, voltage, (heart rate sold separately).
- Charging and storage **tray.**

TECH & LEARNING AWARDS OF EXCELLENCE 2024 BACK TO SCHOOL

Features & Specifications

- *Auto-calibrated.*
- *USB 2.0 and BLE 4.2 connectivity.*
- *150 hour battery life (with screen off), 8 hours (screen on)*
- *Servo outputs allow controlling small servos.*
- *Image-based readings to enhance understanding.*
- *Remote data collection.*
- *100 samples/second max speed.*
- *100,000 samples memory size*
- *30 animations or 1800 still image memory size.*
- *16 x 16 pixel LED dot matrix.*
- *Rechargeable LiPO 3.7V battery.*
- *Windows 11, Android, iOS compatibility.*

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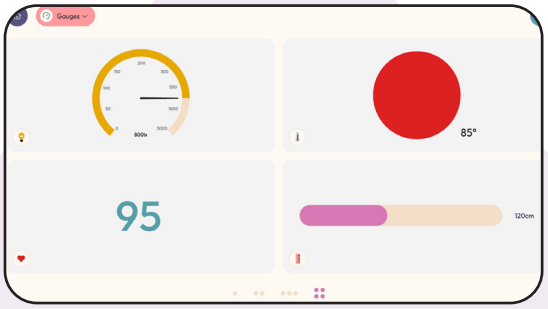
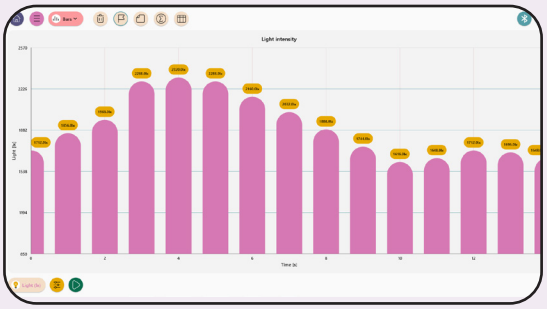
xploris

XploriLab Software Interfaces



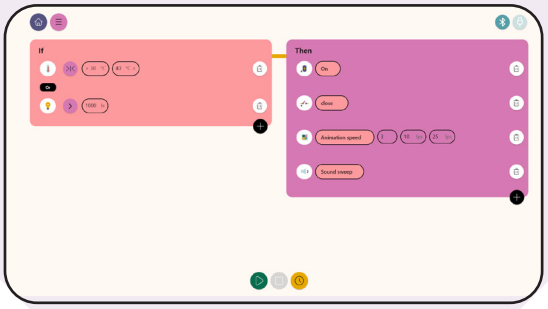
SENSING

- Select which **sensors** you would like to **view**.
- Select how you would like to view them.
- **Software updates in real time** both visually and with numerical values.
- The **Xploris screen** also updates live with visual indicators.



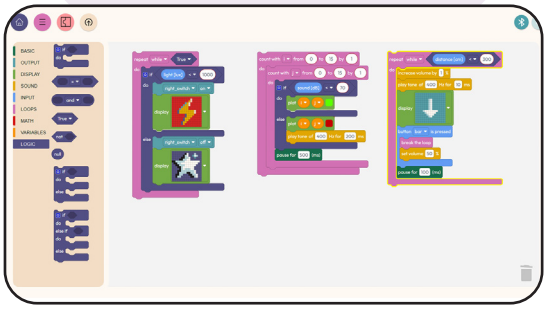
DATA LOGGING

- Set up **experiments** with one or more sensors.
- View the data as a **bar graph, line graph, or table**.
- Add **markers and annotations**. Zoom or crop your graph.
- Download cached experiments or run them live.



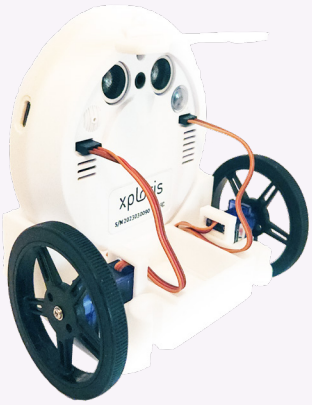
CONTROL

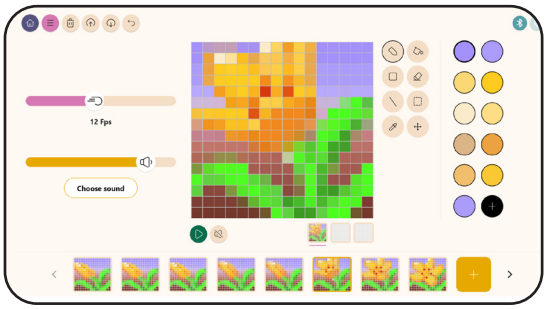
- Set up simple **if/then statements**.
- Control the screen, servo outputs, 5V outputs, or electronic switches to **respond to sensor readings**.
- *Example: As the temperature increases, increase the speed of the "molecule" animation.*



CODE & ROBOTICS

- **Program** in Blockly or Python.
- **Control** your Xploris using loops, if/else statements, variables, and more. Determine inputs and outputs.
- **Drive** your Xploris by adding motors and a robotic base (not included).





ART & MUSIC

- Create still **images or animations** on a 16x16 pixel grid.
- Compose **music** on a simplified piano keyboard.
- Design on 3 **layers** and duplicate frames.
- Set animation speed and sound.
- **Send images and animations** to your Xploris screen.

MyStemKits.com

Standards-Driven STEAM Curriculum, Virtual STEM Kits, and 3D-Print Library

Content Includes (where applicable):

- *3D-printable manipulatives or virtual STEM kits*
- *Multi-page Teacher Guides*
- *Student Handouts*
- *Design and Coding Procedures (PDF & Video)*
- *Student Assessments*
- *Teacher Answer Keys*

INCLUDED WITH EVERY MYSTEMKITS SUBSCRIPTION PURCHASE:

- **36-month** access to online library *(Starter Plans are only 12 months).*
- Choose from **over 440 lessons** and 40+ STEAM Design Challenges for your 3D printers, MyBot robots, and Labdisc sensors.
- **Virtual STEM Kits** for use in-person, hybrid, and remote learning.
- Over **250 ready-to-3D-print kits** designed for classroom use.
- Content driven by NGSS, Common Core, and State **Standards.**
- **3D-printer management** tools compatible with 75 types of printers.
- School Plans include printer sharing across accounts.
- Built-in **training videos** and resources.

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MyStemKits.com

Make STEM Learning Impactful

Select the plan that best fits your needs.

Parameters	Teacher Plan	School Plan
Teacher licenses	**1**	**10**
Number of kits	UNLIMITED access	UNLIMITED access
Ready-to-print 3D models	✔	✔
Virtual STEM kit simulations	✔	✔
Assembly and implementation guides	✔	✔
Teacher guides **Student handouts** **Student assessments** **Answer keys** **Programming procedures** **Design procedures**	✔	✔
Printer sharing		✔
Admin controls & analytics		✔

Sample Activities:

Shade Structures
Grade: K | S.T.E.A.M.
Labdisc & Robo

Bicycle Delivery Routes
Grades: 3-4 | T.M.
MyBot & Robo

Gliders & the Pythagorean Theorem
Grade: 8 | S.M. | *Robo*

Hominin Evolution
Grades: 9-12 | S.
Robo

To learn more, visit www.MyStemKits.com and sign up for a free trial today!