



ATP VOLTA™ + ATP CONNECT™

The classroom, reimagined.

Mobile laboratories, AI tutors and hands-on experimentation — combined into one scalable platform. No construction. No permits. The lab arrives, and science starts on day one.

THE SOLUTION

One integrated system for hands-on STEM education

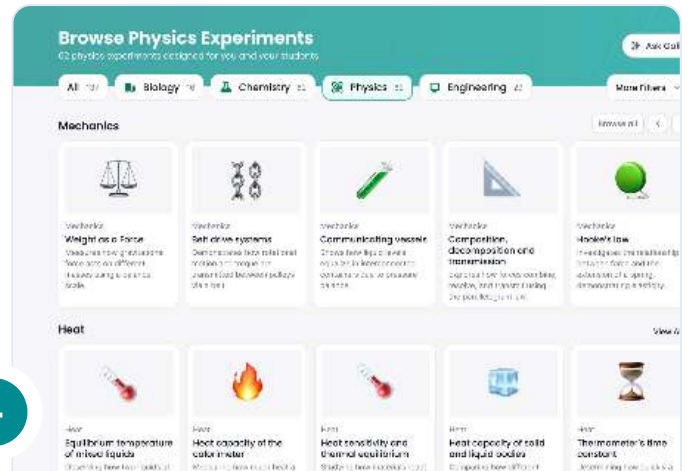
Schools everywhere face the same two barriers: the cost of laboratory infrastructure and the shortage of qualified STEM teachers. ATP STEM HUB answers both at once — a complete science laboratory on wheels, paired with an AI-powered teaching platform that supports every lesson.



01 — HARDWARE

ATP Volta™

A fully autonomous mobile laboratory: modular Smart Trays for physics, chemistry, biology, earth sciences and robotics, with a self-contained water system, power, portable fume hood and connectivity built in. Any room becomes a fully equipped lab in minutes.



02 — SOFTWARE

ATP Connect™

A browser-based platform with guided digital experiments, automatic assessment and classroom analytics — plus Gali™, the AI tutor that supports students and teachers before, during and after every session.

215

guided experiments
on ATP Connect

6

subjects — physics, chemistry, biology,
earth sciences, robotics & AI

5

languages incl. Arabic —
EN · IT · FR · ES · AR

5-yr

warranty on every lab,
designed & made in Italy

“Training 10,000 STEM teachers takes years and enormous investment. Deploying ATP STEM HUB to 10,000 classrooms happens immediately.”

Lab-agnostic setup · teacher-led AI support · hands-on student experimentation



ATP Volta™ — the mobile STEM laboratory



Fully autonomous — water, power and digital guidance on board.

01

Modular Smart Trays

Every instrument in its place: foam-lined trays organised by discipline, with customisable add-on trays, housed on the Air Cart.

02

All-in-one convenience

Self-contained water system with electric pump, adjustable 0–30 V / 10 A power supply, outlets, safe gas supply and portable fume hood — optional solar kit for off-grid use and optional 28-tablet charging bay, ventilated and cooled.

03

Connectivity hub

Built-in 4G LTE Wi-Fi router connects up to 32 devices and powers ATP Connect™ anywhere — even off-grid.

04

Robust & safe design

Duralumin structure; honeycomb aluminium panels; 1.2 mm hot-galvanised steel shell; chemical-resistant HPL worktop; single-key lockable doors; twin swivel castors.

05

Certified safety

CE certified and the only lab in its category conforming to EN 13150 — RoHS compliant. Extinguisher, first-aid kit, protective goggles, nitrile gloves, RCD circuit breaker and copper earthing.

06

Italian excellence

Proudly designed and made in Italy — and covered by a comprehensive 5-year warranty.



ACC-006 Portable fume hood



Optional 28-tablet charging bay

182×65×92

cm — compact footprint

5

drawers + front & side doors

6

swivel castors, 2 braked — 120 kg load each

32

Wi-Fi devices supported

110/230 V

with 6 m self-retracting cable

Smart Trays — every instrument, in its place

Each drawer holds two extractable foam-lined Smart Trays organised by discipline — lessons start in minutes, and inventory checks take one glance. The **Science Bundle (REF. LAB-001)** ships **207 items across 9 disciplines**, all stored inside the lab.



Organised by discipline. Shaped high-resistance foam pods protect every instrument in transit and make missing items visible instantly.

WHAT'S IN THE SCIENCE BUNDLE

207 items · 9 disciplines

58

Mechanics

Vernier calliper, spring dynamometers, pulley systems, inclined plane with cart, mass sets

15

Heat

Mixing calorimeter, thermometer, Franklin's pulse glass, specific-heat cylinders

23

Optics

Optics & colour-mixing box, halogen projector, Hartl disc, lenses, mirrors, prism

1

Acoustics

Pair of A (La) tuning forks

6

Magnetism

2D magnetic field chamber, bar, U and horseshoe magnets, compass

8

Electrostatics

Glass, ebonite & Perspex rods, conducting spheres, pith-ball electroscope

23

Electricity

Digital multimeter, voltmeter, circuit boards, resistors, switches, lamps

36

General Chemistry

32-reagent set, electronic balance, glassware, electrodes, safety goggles

37

Biology & Earth Science

Digital microscope, mini torso, osmosis apparatus, dissection tools, prepared slides, rock collection

207

Items in total

Full itemised list with codes in the technical data sheet — available on request.

HIGHLIGHTS



BIO-009

Digital microscope

Euromex EcoBlue EC.1105 — monocular, achromatic optics 40×–1000×, LED illumination and an **integrated 5 MP camera** to capture and share what students see.



BIO-003

Mini torso

High-quality PVC, dual-sex human torso model with **16 removable parts** — organs come out one by one for hands-on anatomy lessons.

STEM Bundle — goes further

Everything in the Science Bundle, plus **data logging, robotics, coding and DNA analysis** — wireless dataloggers, official Arduino Education kits and classroom electrophoresis, all integrated with ATP Connect™.



ROBOTICS

Arduino Alvik

Programmable robot (Nano ESP32) with line, distance & colour sensors and IMU, **LEGO® Technic-compatible**. Code it in blocks, MicroPython or Arduino.



CODING

Arduino Student Kit

Arduino UNO R3 kit with breadboard, multimeter, sensors and components — **9 guided lessons + 2 open projects**.



DATA LOGGING

ATP SciencePod

Wireless datalogger with **up to 15 built-in sensors** — pH, temperature, light, motion, GPS and more. One device per group, no cables.



CODING & CONTROL

ATP SteamBox

Handheld device for **data logging, coding and control**: 5 sensors, motor & voltage outputs, 16×16 LED matrix. Blockly and Python.



DNA ANALYSIS

EDGE™ Electrophoresis

Gel chamber, power supply and **blue-light transilluminator** in one unit. Agarose gel results in about 10 minutes, no UV needed.

WHAT YOU GET

Science Bundle + 5 STEM kits

- All **207 Science Bundle** items in the Smart Trays
- **Data logging** — ATP SciencePod
- **Coding & control** — ATP SteamBox
- **Robotics & electronics** — Arduino Alvik and Student Kit
- **DNA analysis** — EDGE™ electrophoresis

REF. LAB-002

Choose your bundle, then grow

SCIENCE

REF. LAB-001

Science Bundle

All the essential equipment to run **134 experiments** in physics, chemistry, biology and earth science — ideal for grades 6 to 9. Includes manuals with teacher sections and student modules.

STEM

REF. LAB-002

STEM Bundle

Everything in the Science Bundle, plus data logging, robotics and life science: **ATP SciencePod & ATP SteamBox** dataloggers, official Arduino Kits — Alvik robot and Student Kit — and the **EDGE™ electrophoresis system**.

EXPAND

REF. LAB-003

Air Cart & custom trays

Add specialised Smart Trays on the lightweight aluminium Air Cart — or ask us to **customise a tray** with the exact equipment your curriculum requires.

For schools

- A full laboratory without construction, permits or dedicated rooms
- Expert AI support for every teacher, in every lesson
- Engaging, hands-on lessons that students remember

For education authorities

- Curriculum-aligned content with measurable learning outcomes
- Scales from a pilot to a national programme immediately
- Cost-efficient: one investment equips an entire school

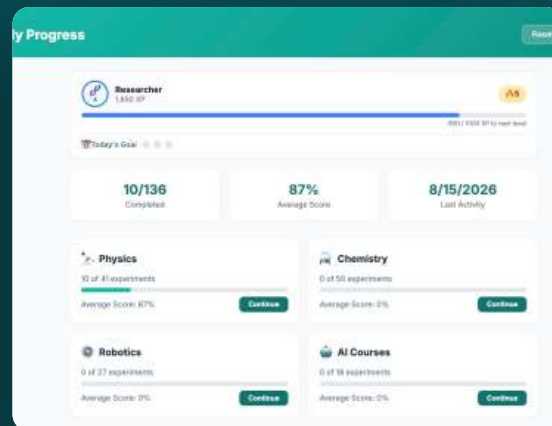
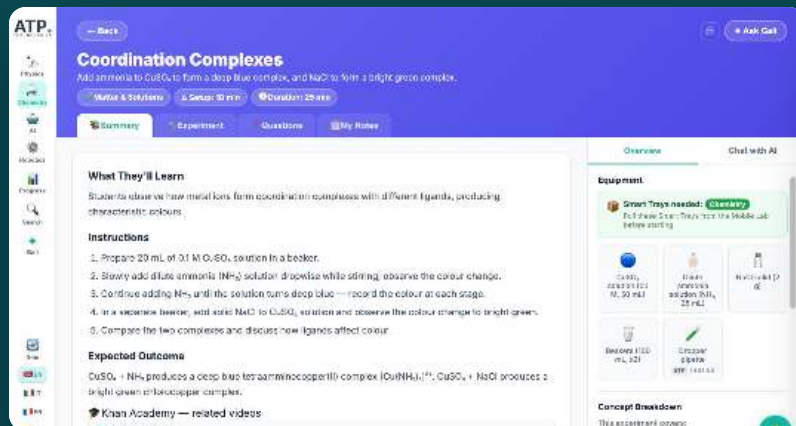
For distributors & partners

- Dedicated discounts for partners
- Patented product, made in Italy
- Multilingual platform ready for global markets



ATP Connect™ — every lesson, guided by AI

ATP Connect turns ATP Volta into a complete teaching system. Browser-based and device-agnostic, it works on any laptop, tablet or interactive screen — online or offline.



200+ guided digital experiments

Step-by-step experiments across physics, chemistry, biology, robotics and AI — aligned to your curriculum, from the **Arduino Alvik** robot to artificial intelligence.

Assessment & analytics built in

MCQ, true/false and short-answer assessments with automatic grading, per-student performance tracking and class-level insights for teachers.

Multilingual & offline-first

English, Italian, French, Spanish and Arabic with full right-to-left support. Offline-first design keeps every classroom running, connected or not.

Teacher-led, not teacher-replacing

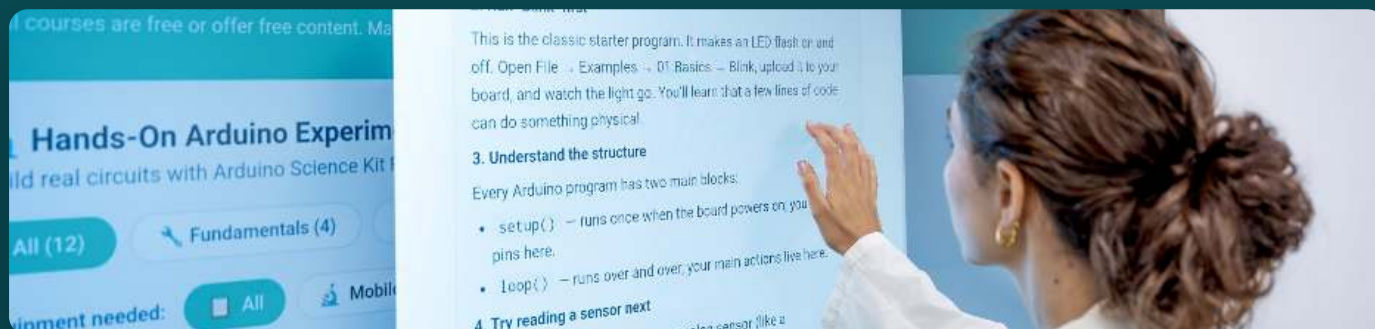
Pre-session briefings, real-time support and post-session analytics put teachers in command of every hands-on lesson — whatever their STEM background.

MEET GALI™ — THE AI TUTOR

Gali guides students with questions rather than answers, building real understanding during hands-on work. For teachers, Gali prepares each session, assists live in class and analyses results afterwards — expert support in 10 classrooms or 10,000, immediately.

Built by ATP Technologies® LEARNING CONTENT FROM

Anthropic · Arduino Education · Copernicus · ESA · GLOBE Program · Harvard University · Khan Academy · NASA · NOAA · OpenStax · PhET · Raspberry Pi Foundation · USGS · WHO



What you can run, bundle by bundle

Every ATP Connect™ experiment names the exact Smart Tray items it needs, so the count below is not an estimate: it is the number of guided experiments each configuration fully equips. Both bundles include the platform, Gali™ and all five languages.

SCIENCE

Science Bundle
 REF. LAB-001

134

guided experiments

Physics 41	Mechanics 18 · Optics 8 · Heat 6 · Magnetism 4 · Acoustics 3 · Electricity 2
Chemistry 50	Matter & Solutions 10 · Acids & Bases 10 · Gas Chemistry 10 · Electrochemistry 10 · Plant Physiology 10
Biology 32	The Human Body 8 · Cells & Microscopy 7 · Genetics & DNA 6 · Comparative Anatomy 6 · Microbes & Health 4 · Human Physiology 1
Earth Science 11	Rocks & the Solid Earth 8 (rock collection GEO-001) · Energy Budget & Albedo 3

Standard lab only — glassware, mechanics, optics, electricity and chemistry trays, the digital microscope, the mini torso and skeleton, the DNA model and the rock collection. Ten of these experiments need only everyday classroom supplies.

STEM

STEM Bundle
 REF. LAB-002 · SCIENCE BUNDLE + 53 guided experiments

187

guided experiments

Sensors +35	Wireless dataloggers unlock Earth Science 24 — Oceans & Water 8 · Weather & Microclimates 7 · Greenhouse Effect & Carbon 5 · Energy Budget 3 · Earth from Space 1 — and Biology 11 — Human Physiology 7 · The Human Body 2 · Cells 1 · Microbes 1
EDGE™ +2	Classroom electrophoresis: Genetics & DNA — gel runs with dyes, reading the bands
Arduino Student Kit +10	Robotics — Fundamentals 4 · Sensors 2 · Actuators 3 · Projects 1, on the UNO R3
Arduino Alvik +6	Robotics — first drive, encoders, line following, obstacle avoidance, colour & touch, warehouse capstone

All five subjects on one cart — physics 41 · chemistry 50 · biology 45 · earth science 35 · robotics 16.

The library. Every experiment filterable by section and by the equipment it needs.

Every item coded. Instructions, ATP codes and the Smart Trays to pull before class.

Gali teaches it first. A short avatar lesson opens every experiment.

ON THE ATP CONNECT™ PLATFORM 215 guided experiments	236 quizzes — one per experiment and per course	21 online courses	6 subjects	5 languages incl. Arabic
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Beyond the two bundles, ATP Connect also features 10 hydroponics experiments on the EcoGrow Pro line, 6 edge-AI experiments on the Arduino VENTUNO™ Q, 10 Earth-from-space activities built on NASA and Copernicus open data, and 2 Arduino Nano experiments. Every experiment ends with its own auto-graded quiz; the 21 online courses come from Arduino Education, Harvard CS50, the Raspberry Pi Foundation and Anthropic. Counts as of October 2026.

SOLAR POWER OPTION

When the grid goes down, the lesson **doesn't**

An off-grid solar system built into ATP Volta™ — enough to run a full science lesson on its own, and enough to keep the school connected when the power fails.



215 W

Victron BlueSolar
monocrystalline panel

12.8 V / 60 Ah

Victron Lithium
SuperPack battery

330–380 W

typical simultaneous
teaching load

32

Wi-Fi devices on the
built-in 4G LTE router

One system, **three jobs**

01

Runs the lesson

Interactive display, teacher PC, tablets and the laboratory station all draw from the cart — a typical simultaneous load of 330–380 W.

02

Keeps the school online

The built-in 4G LTE router serves up to 32 devices; USB ports charge phones and AC outlets charge PCs and tablets right through an outage.

03

Refills itself

Solar feeds the load through morning lessons. When classes end and demand drops, the remaining daylight recharges the battery for the next morning.

Three ways to mount the panel

Roof mounted — **permanent, best exposure**

A drop cable brings power directly into the classroom through a quick-disconnect safety connector, protected against reverse polarity.

Wall or window — **short cable route**

A compact option where roof access is limited, or where a shorter run is preferred.

Portable outdoor — **freestanding**

For demonstrations, temporary sites, school courtyards and outdoor lessons.

Technical specification

Inverter	Victron Phoenix 12/800 VE.Direct, pure sine wave
Battery storage	Victron Lithium SuperPack 12.8 V / 60 Ah, under 10 kg
Solar panel	Victron BlueSolar 215 W monocrystalline, 158 × 70.5 cm
Charging cycle	Solar assists the load in the morning; afternoon daylight recharges for the next day
Technical bay	Ventilated lower compartment, anti-dust filters, 5 W extractor fan, vertical inverter mounting
Front panel	Battery charge and solar input, pump control, AC outlets, USB charging, 0–30 V / 0–5 A lab supply
Connectivity	4G LTE Wi-Fi router, up to 32 devices (Mini-SIM and service not included)

Panel reference dimensions 158 × 70.5 cm. **Final configuration varies** with local voltage, solar conditions, number of panels, cable distance and school requirements. Other school activities must stay within the system's electrical load limits.

Inside ATP Connect™. Gali™ at work.

This is how ATP Connect's AI accompanies a real lesson: it prepares the teacher, guides students through the hands-on experiment, and turns results into concrete next steps.

“Why do I need less force on a gentle slope?” Gali answers with questions and concrete examples, links the theory to the Smart Tray equipment and suggests the next check.

1 · Before class

- Gali prepares the session: learning goals, a briefing tailored to the teacher and experiment timings
- Automatic list of the materials needed, tray by tray
- Linked videos and reading to introduce the topic

2 · During the experiment

- Real-time support for students and teacher, right on the running experiment
- Socratic questions that build understanding — not ready-made answers
- Formulas, real-world examples and step-by-step instructions in 5 languages

3 · After class

- Automatic grading of assessments and a gradebook
- Progress per student and per class, with gaps highlighted
- Next experiments suggested from the results

Hands-on activities, filterable by **The experiment library**, discipline, equipment needed and duration.

Instructions, expected outcomes, **Every experiment, guided**, linked videos and built-in assessments.

Ready for any classroom

In the browser, no installation

PCs, tablets and interactive screens

5 languages, including Arabic (RTL)

Offline-first: works without a connection

ATP Volta™ — Mobile STEM Laboratory

LAB-001 — data sheet

Dimensions & weight	182 × 65 × 92h cm · 195 kg total	Educational material	Included, in trays with custom-shaped high-resistance protective foam inserts
Typology	Mobile cart with worktop, five drawers, frontal and lateral doors	Manuals / support	120+ guided experiments in English (200+ across the full ATP ecosystem) — teacher section and student modules, paper and digital, with multimedia materials
Work top	Chemicals-resistant HPL	Connectivity	4G LTE mobile Wi-Fi router, WiFi 802.11 b/g/n, up to 32 devices (Mini-SIM & internet service required, not included). USB-C hub
Structure	Supporting profile in duralumin, honeycomb aluminium panels, 1.2 mm hot-galvanised steel shell, anti-acid paint	Safety systems	Doors lockable with a single key; 1 kg powder extinguisher, first-aid kit, safety goggles, RCD circuit breaker, copper earthing
Wheels	6 swivel castors, two with brakes — max load 120 kg each	Certifications	EMC Directive 2014/30/EU · LVD 2014/35/EU · RoHS 2011/65/EU · UNI EN 13150
Power supply	Adjustable DC 0–30 V, 10 A max; digital displays for voltage, current and power; over-current & over-voltage protection; output on/off; 5 V / 2 A USB output	Warranty	5 years on the ATP Volta structure (wear parts, consumables and glassware excluded)
Hydraulic system	Electric pump with push button; two 10 L acid-resistant polyethylene tanks for water and waste	Patents	EUIPO No. 008876478-0001 · U.S. Patent No. D1,043,022
Gas & fume extraction	Safe gas supply; portable fume hood (ACC-006)	Optional	Tablet storage & charging bay (28 slots, each with its own charger, forced ventilation and cooling) · Solar kit (photovoltaic panel + inverter + battery in a dedicated ventilated bay — fully off-grid operation) · VESA monitor arm · 24" all-in-one PC · accessibility platform
Electrical system	Main switch with 10 A curve-C residual-current protection and TEST button; 110 / 230 V via internal voltage selector; 6 m self-retracting cable	Packaging	Fumigated wood pallets for maritime transport, fitted 3-layer carton box
Electrical outlets	Front: 2 universal + 1 Schuko, 2 USB-C Power Delivery + 1 USB-A fast charge; rear: 2 universal + 1 Schuko — all 220 V 16 A		

ISO 9001 · CE · EN 13150

Made in Italy

Designed & crafted by ATP

5-year

Comprehensive warranty





All in one classroom. Tomorrow's skills, today.

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