ARDUINO® EDUCATION 2022

TEACH TODAY, FOR TOMORROW WITH CREATIVE STEAM LESSONS - BOTH IN CLASS AND ONLINE

ARDUINO.CC/EDUCATION

ARDUINO EDUCATION

WELCOME TO ARDUINO® EDUCATION!

IN THIS CATALOG, YOU'LL FIND OUR FULL RANGE OF STANDARDS-LINKED STEAM KITS AND DIGITAL SERVICES DEDICATED TO EDUCATION. YOU'LL DISCOVER HOW EACH KIT BENEFITS STUDENTS FROM MIDDLE SCHOOL TO UNIVERSITY, AND BOOSTS NOT ONLY THEIR LEARNING, BUT ALSO THE FUTURE SKILLS THEY NEED TO SUCCEED. MOST OF OUR KITS DON'T REQUIRE ANY EXPERIENCE TO GET STARTED, AND SEVERAL SUPPORT HOME LEARNING. THEY'RE ALL EASY TO USE, WITH POWERFUL LEARNING OUTCOMES.

TEACH TODAY, FOR TOMORROW.

DID YOU KNOW?
Arduino has been to space! It's also been used to program satellites and in testing a new fuel for space travel.

TABLE OF CONTENTS

KEY TO ARDUINO EDUCATION ICONS

- Science, Technology, Engineering, Arts, Math
- Coding
- Social & Emotional Development
- Creative Exploration
- Early Language & Literacy
- Free Website Downloads
- Free App Available
- Add-On Kit

4 About Arduino Education
5 Our Vision, Mission and Values
6 Arduino Learning Evolution
8 Digital Solutions
9 Arduino Education Kits at a Glance
10 How We Support Teachers
12 Arduino Student Kit
14 Arduino Education Starter Kit
16 Arduino Starter Kit Classroom Pack
18 Arduino CTC GO! Core Module
20 Arduino CTC GO! Motions Expansion Pack
22 Arduino Explore IoT Kit
24 Arduino Certification Program
26 Arduino Braccio++
28 Arduino Engineering Kit R2
30 Replacement Parts
31 Arduino Science Journal App
32 Arduino IoT Cloud Platform
33 Arduino Classroom
34 Arduino Boards and Hardware for Education
36 Shields & Carriers
38 Arduino Nano Family

ABOUT ARDUINO® EDUCATION

Arduino® Education classroom programs progress students through STEAM from middle school to university, increasing in complexity to challenge them as they develop their skills. All programs include a range of electronics, such as programmable boards, sensors, accessories, and mechanical parts; simple open-source software; online content for students to build hands-on projects, and guided training and support for educators.

The products students learn with are the same as those used professionally in companies around the world, such as Google, FitBit, and Parrot, in applications like rapid prototyping, AI, drone technology, and machine learning.

A NOTE ON REMOTE LEARNING

Arduino Education launched a remote learning platform to deliver online support to educators, parents, and students in the wake of the pandemic. This platform provides the tools needed to feel comfortable and confident in completing successful STEAM lessons at home.

Material includes video tutorials, Q&A sessions, and extra support made up of the most useful resources, ideas, and tips recommended by educators.

Several of the Arduino Education kits are suitable for learning at home, including the Student Kit (page 12), the Explore IoT Kit (page 22), and the Engineering Kit (page 28).

Visit ARDUINO.CC/REMOTELEARNING to find out more.

DID YOU KNOW?
The largest ever Arduino project was a 100m-long light installation which ran on 40 boards, controlled 15.200 LEDs, and used over 2km of cable!

OUR VISION, MISSION, AND VALUES

VISION
Arduino Education makes technology, programming, and coding accessible to everyone, putting it into the hands of every student and educator - whether you're teaching from home or in the classroom.

MISSION
Arduino Education is focused on creating the next generation of scientists and artists with STEAM programs that progress students and help them thrive through middle school, high school, university, and beyond. Our technology, programming, and curriculum content are creative tools - just like brushes and paint - that support learning outcomes whether students are in class or learning remotely.

VALUES
We champion students as they progress through their STEAM education from middle school to university by providing relevant, creative, and fun technology, programming, and curriculum content that enables them to thrive. We support the needs of educators by giving them the tools they need to feel at ease in delivering successful STEAM lessons, whether they're in class or online, and teaching their students 21st-century skills.

ARDUINO® LEARNING EVOLUTION

Our aim is to help students achieve their dream careers in **STEAM**. Our cross-curriculum content and open-source approach are essential tools for STEAM classes that develop with students as they progress, preparing them for a successful future.

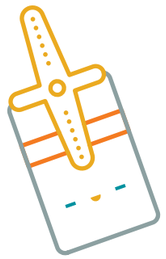
This evolution shows how students can continue learning new STEAM skills using different Arduino Education programs and kits as they progress through their education.

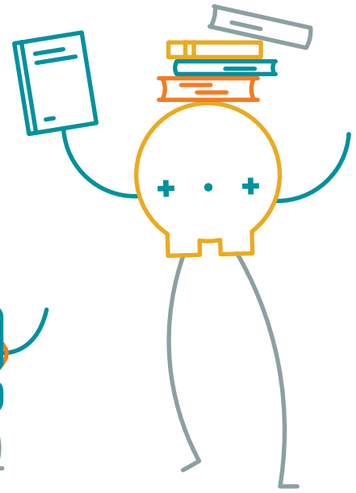
Middle School
Guide middle school students from their very first steps with electronics into a world of robotics, computational thinking, and programming. Introduce new concepts on a continuous learning curve with extensive cross-curriculum open-source programs that are aligned with NGSS and help develop future skills such as collaboration, critical thinking, creativity, and problem-solving.

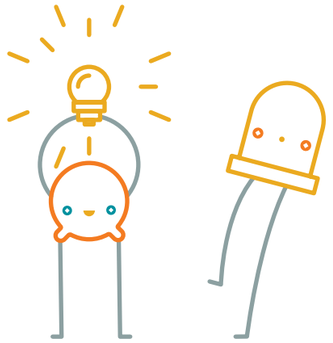
High School
Build on students' established foundation of programming, electronics, and mechanics with fun, cross-curriculum, open-source STEAM projects and easy-to-assemble experiments, all aligned with NGSS. Enhance future skills while delivering modular lessons where students learn by doing and take their STEAM skills to the next level.

University
State-of-the-art open-source technology engages university students in fundamental engineering concepts, key aspects of mechatronics, and complex programming functions. High-quality learning materials and demanding projects will challenge them intellectually and help them develop engineering skills - all while having fun.

ARDUINO® LEARNING EVOLUTION

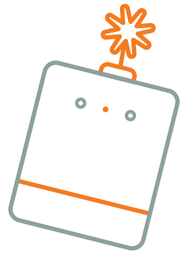






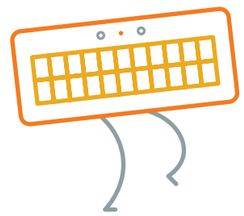
MIDDLE SCHOOL

- STARTER KIT CLASSROOM PACK
  AGE 14+
- EDUCATION STARTER KIT
  AGE 11-14
- STUDENT KIT
  AGE 11-14



HIGH SCHOOL/ SECONDARY SCHOOL

- CTC GO! CORE MODULE
  AGE 14-17
- CTC GO! MOTIONS
  AGE 14-17
- EXPLORE IoT KIT
  AGE 16+



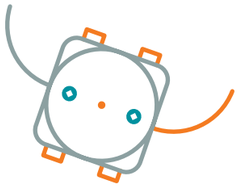
UNIVERSITY/ COLLEGE

- ENGINEERING KIT R2
  AGE 17+
- BRACCIO++
  AGE 16+
- CERTIFICATION PROGRAM
  AGE 16+

DIGITAL SOLUTIONS

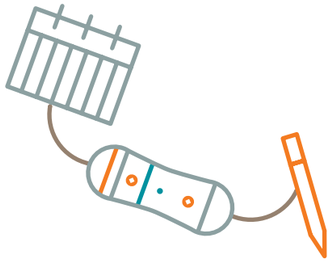
As well as the kits, you can also access apps and platforms to support your STEAM teaching.

ARDUINO	AGE	SUPPORTED PLATFORM	SUBJECT MATTER COVERED	DESCRIPTION	WHERE CAN YOU USE THIS?
SCIENCE JOURNAL	9+	Android/iOS App	Science, Technology, Math	A pocket-sized science lab that allows students to experiment, record data, and document observations like a real scientist.	CLASSROOM, REMOTE LEARNING, SELF-LEARNING
CLOUD	12+	Web-based application	Science, Technology, Engineering, Math	Write and upload code directly from your browser, connect your devices, and build real-time dashboards.	CLASSROOM, REMOTE LEARNING, SELF-LEARNING
IOT CLOUD REMOTE	16+	Android/iOS App	Internet of Things	An app that allows you to control your Arduino devices remotely.	CLASSROOM, REMOTE LEARNING, SELF-LEARNING
CLASSROOM	10+	Web-based application	Science, Technology, Engineering, Arts, Math	A platform that enables you to manage your Arduino kits and subscriptions.	CLASSROOM, REMOTE LEARNING, SELF-LEARNING



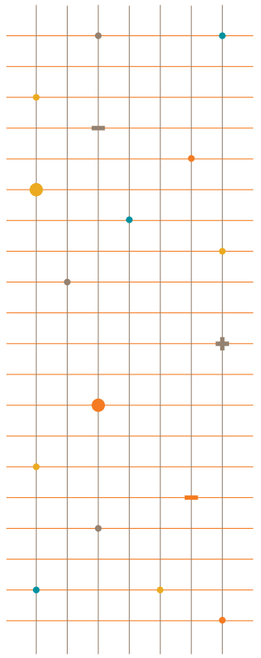
ARDUINO® EDUCATION KITS AT A GLANCE

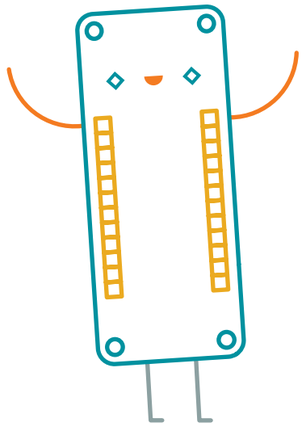
SCHOOL LEVEL	ARDUINO KIT	AGE	SUBJECT MATTER COVERED	DESCRIPTION	WHERE CAN YOU USE THIS KIT?
MIDDLE SCHOOL	STUDENT KIT	11-14	Science, Technology, Engineering, Math	A programming and electronics kit designed for remote learning.	REMOTE LEARNING, SELF-LEARNING
	EDUCATION STARTER KIT	11-14	Science, Technology, Engineering, Math	Learn electronics and get started with programming. No experience necessary!	CLASSROOM
	STARTER KIT CLASSROOM PACK	14+	Science, Technology, Engineering, Arts	Get started with electronics quickly and easily. No experience necessary!	CLASSROOM
HIGH SCHOOL/ SECONDARY SCHOOL	CTC GO! CORE MODULE	14-17	Science, Technology, Engineering, Arts, Math	Everything you need to create engaging and relevant STEAM lessons at high school.	CLASSROOM
	CTC GO! MOTIONS EXPANSION PACK	14-17	Science, Technology, Engineering, Math	Build on your students' knowledge with more complex concepts that develop computational thinking and future skills.	CLASSROOM
	EXPLORE IOT KIT	16+	Science, Technology, Engineering, Arts	Innovate, create, transform: get advanced high school and college students on their first step in building internet-connected objects.	REMOTE LEARNING, CLASSROOM
UNIVERSITY/ COLLEGE	ENGINEERING KIT R2	17+	Science, Technology, Engineering, Math	Challenge engineering students and help them develop mechatronic engineering skills.	REMOTE LEARNING, SELF-LEARNING, ENGINEERING LAB
	BRACCIO++	16+	Science, Technology, Engineering, Math	Braccio++ is a fully operational robotic arm, controlled via Arduino.	REMOTE LEARNING, SELF-LEARNING, ENGINEERING LAB



DID YOU KNOW?
One of the first Arduino projects ever made was an electroshock machine that could control the human body using electrodes on elbows and knees. The system reacted to music and sent electroshocks based on volume.

HOW WE SUPPORT TEACHERS





Our team of educational experts are focused on creating STEAM programs that support educators and students in different ways:

- **Classroom management** - You have all the tools you need to deliver successful STEAM lessons and confidently teach your students critical future skills. All kits come in robust storage boxes to survive continual use.
- **Remote learning** - These are unprecedented times where schools are changing and we need to rethink how we teach. We have gathered a number of resources to assist teachers, students, and parents in teaching and learning technology at home or remotely.
- **Educator training** - Most of our kits include onboarding webinars which guide you through the content and online tools. A set of training videos explains the concept of each lesson, and shorter videos expand on lesson content.
- **Hands-on workshops** - We and our partners regularly organize hands-on workshops. These workshops provide the opportunity to experience Arduino and learn how it can be applied across STEAM subjects.
- **Dedicated online content** - All the materials you need for each lesson, resources to help with lesson preparation, content tips, timing suggestions for classroom management, and curriculum links.
- **Lesson planning** - Each lesson is carefully planned to efficiently manage the set-up, teaching, and practical experimentation in the time available.
- **Further support** - We're available to answer any questions you may have, and we respond quickly. The Arduino Education forum also means you can share ideas and experiences with like-minded educators.

ARDUINO STUDENT KIT

Learn electronics and get started with programming with this beginner-friendly kit, designed specifically for homeschooling and remote learning.

Recognizing that learning from home is different and in many ways more challenging for students, the **Student Kit** provides remote learning support material in the form of live sessions, video tutorials, articles, and tips on teaching and learning at home.

You can use the kit for remote teaching, as the online platform contains all the content students need: exclusive learning guidance, nine 90-minute lessons, and two open-ended projects.

WATCH THE ARDUINO STUDENT KIT IN ACTION: YOUTUBE.COM/ARDUINO

In-class version available: EDUCATION STARTER KIT (see page 14)

STORE.ARDUINO.CC/STUDENT-KIT
SKU: AKX00025

QUICK LOOK

— Age: 11-14
— No. of students per kit: 1
— No. of lessons: 9
— No. of projects: 2 (open-ended)
— Learning time: 25 hours
— Languages: English, Spanish, Italian, German, Croatian, Chinese, Portuguese
— Perfect for self-learning, home school, and remote learning

WHAT'S IN THE KIT?

The Student Kit comes with parts and components that are used to build circuits while completing the lessons and projects throughout the course. These include (but are not limited to):

— Access to exclusive online content
— Arduino Uno Rev3
— Breadboard
— Cables, batteries, wires, LEDs, resistors, push buttons
— Multimeter
— Potentiometers, capacitors, phototransistor, temperature sensor
— Servo Motor

KEY LEARNING VALUES

— Basic concepts of electricity
— Safety
— Schematics
— Writing code
— Controlling a circuit
— Coding concepts
— Controlling a servo motor
— Producing sounds, tones, and music
— Measuring the intensity of light

BENEFITS OF USING THE STUDENT KIT

— Affordable
— Quick and easy to get started with step-by-step lessons
— No experience required for educators, parents or children
— Lessons are fun and engaging with real-world topics
— Use the kit at home just like students would be using in class
— Go to at the speed of individual ability
— Improve problem-solving and critical thinking skills

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE:
ARDUINO.CC/EDUCATION/STUDENT-KIT

Content & curriculum

The Student Kit is a great resource for remote teaching as the online platform contains all the content students need: exclusive learning guidance, tips for remote learning, nine 90-minute lessons, and two open-ended projects.

Each lesson builds off the previous one, providing a further opportunity for students to apply skills and concepts they've already learned. You can track your students' progression and achievements via a logbook, which students complete as they work through each lesson. The beginning of each lesson provides an overview, estimated completion times, and learning objectives.

Throughout each lesson, there are tips and information that help to make the learning experience easier, and key answers and extension ideas are also provided. There's also an opportunity for students to present their work halfway through the lesson, so teachers can check in on their progress.

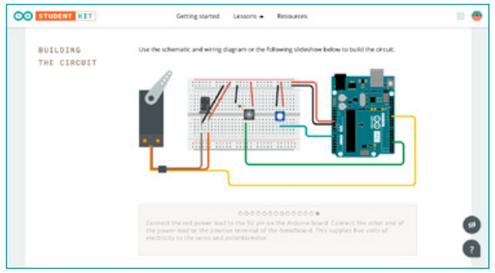
This Student Kit follows the US common standards and focuses on core concepts of coding and electronics.

What you say

"MY KIDS WERE VERY EXCITED TO CRACK INTO THIS. THE WEBSITE COMPANION EXPLAINS EVERYTHING VERY WELL. OVERALL, IT'S A GREAT THING TO DO WITH KIDS STUCK AT HOME DURING A PANDEMIC THAT HELPS THEM ALSO BEGIN TO UNDERSTAND PROGRAMMING AND ELECTRONICS."

- Amazon User, NJ, USA

Watch our live sessions & video tutorials and get TIPS ON REMOTE TEACHING at ARDUINO.CC/EDUCATION/EDUVISION



ARDUINO EDUCATION STARTER KIT

STORE.ARDUINO.CC/EDUCATION-STARTER-KIT
SKU: AKX00023

Get started with programming and electronics in your classroom with a set of step-by-step exercises - no previous experience necessary!

Teach middle school students the basics of programming, coding, and electronics including current, voltage, and digital logic. The **Arduino Education Starter Kit** is designed for use in the classroom, with students working together to complete 11 exciting lessons.

Lessons and projects can be paced according to your students' abilities, allowing each student to learn at their own level. You can integrate the kit throughout the curriculum, including subjects such as physics, chemistry, and even history. There's enough content for an entire semester, so your students have the opportunity to become confident in programming and electronics and hone vital future skills, such as collaboration and problem-solving.

WATCH THE ARDUINO EDUCATION STARTER KIT IN ACTION:
YOUTUBE.COM/ARDUINO

Remote learning version available:
STUDENT KIT (see page 12)

QUICK LOOK

— Age: 11-14
— No. of students per kit: 8 (in groups of 2)
— No. of lessons: 9
— No. of projects: 2 (open-ended)
— Total learning time: 25 hours
— Languages: English, Spanish, Italian, German, Croatian

WHAT'S IN THE KIT?

The Arduino Education Starter Kit contains all the hardware and software you need for 8 students (in groups of 2), including all the components used to build circuits while completing the lessons and projects throughout the course. These include (but are not limited to):

— Access to exclusive online content
— 4 Arduino Uno Rev3
— Breadboards
— Cables, batteries, wires, LEDs, resistors, push buttons
— Multimeters
— Potentiometers, capacitors, phototransistors, temperature sensors
— Motors

Content & curriculum

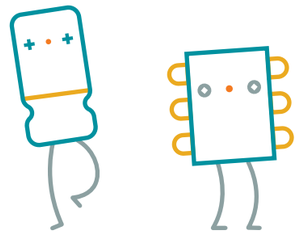
The kit comes with access to an online platform with nine guided lessons, two open-ended projects, a glossary, invention spotlights, tips, and log books filled with exercises - a total of up to 25 hours of learning. Teachers are supported with teacher notes, evaluation guidelines, curriculum materials, and time management tables.

Each lesson builds off the previous one, giving students a further opportunity to apply the skills and concepts they have already learned. The kit follows the US Common Standards and focuses on core concepts of coding and electronics.

What students say

""WHEN WORKING WITH THE ARDUINO EDUCATION STARTER KIT, I LEARNED NEW CONCEPTS THAT I DIDN´T KNOW BEFORE AND I WANT TO LEARN HOW I CAN USE IT IN LIFE. IT MADE ME THINK ABOUT NEW POSSIBLE CAREERS"

- Becca, middle school student, Pittsburg, USA



KEY LEARNING VALUES

— Basic concepts of electricity
— Safety in class
— Schematics
— Writing code
— Controlling a circuit
— Coding concepts
— Controlling a servo motor
— Producing sounds, tones, and music
— Measuring light intensity

BENEFITS OF USING THIS KIT IN YOUR CLASSROOM

— Easy to get started
— No prior coding or electronics experience is required
— Fun and engaging projects are linked to real-world topics
— Boost critical thinking, collaborative learning, and problem-solving skills
— Teach engaging lessons that are relevant, playful, and enable all students to thrive
— Increase your own confidence and teamwork skills with specially-designed content

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE:
ARDUINO.CC/EDUCATION/EDU-STARTER-KIT

ARDUINO STARTER KIT CLASSROOM PACK

Quickly and easily get started with learning electronics using the Arduino Starter Kit, designed for a full classroom.

The **Starter Kit Classroom Pack** teaches a class of 12 students about current, voltage, and digital logic, as well as the fundamentals of programming. There's an introduction to sensors and actuators and how to understand both digital and analog signals. Within all this, you'll be teaching students how to think critically, learn collaboratively, and solve problems.

These kits walk your middle school students through the basics of electronics in a hands-on way, by learning through building creative projects. You get a selection of the most common and useful electronic components and a guide book with instructions for 15 projects that help students take their first steps into the world of electronics. Starting with the basics of electronics before moving on to more complex projects, the kit helps students control the physical world using sensors and actuators.

Each individual Starter Kit can be used by two students, so this classroom pack is ideal for a classroom of twelve students.

WATCH THE ARDUINO EDUCATION STARTER KIT IN ACTION:
YOUTUBE.COM/ARDUINO

STORE.ARDUINO.CC/
STARTER-KIT-CLASSROOM-PACK
SKU: K000007-6P

QUICK LOOK

— Age: 14+
— No. of students per kit: 12
— No. of projects: 15
— Total learning time: 11.5 hours
— Languages: English, German, Italian, Spanish, Chinese, Korean, Portuguese, Arabic, French

WHAT'S IN THE KIT?

This classroom pack contains six Arduino Starter Kits, each of which can be used by two students. Each of the six Arduino Starter Kits you get in the classroom pack includes:

— Arduino Uno
— USB cable
— Breadboard
— Wires, pushbuttons, LCDs, LEDs, diodes, resistors
— Phototransistors
— Potentiometers
— Temperature sensor
— Tilt sensor
— Motors
— Transistors
— Capacitors... and more!

KEY LEARNING VALUES

— Learn the basics of using Arduino in a hands-on way
— Get to know the most common and useful electronic components
— Take your first steps into the world of electronics with interactive and sensing objects
— Programming logic and syntax

BENEFITS OF USING THE CLASSROOM PACK

— No prior coding or electronics experience is required
— Easy and simple to get started
— Projects are fun and engaging with real-world topics
— Boost students' critical thinking, collaborative learning, and problem-solving skills

PREVIEW THE GUIDE BOOK:
ONLINE.FLIPPINGBOOK.COM/VIEW/306420895/

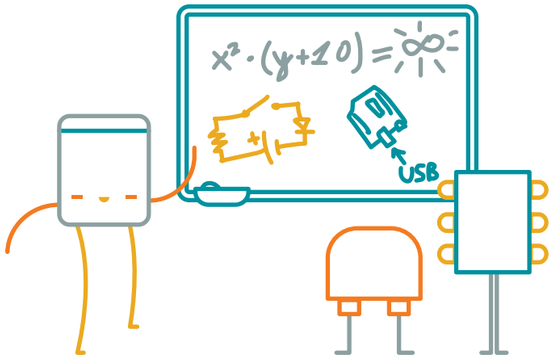
Content & curriculum

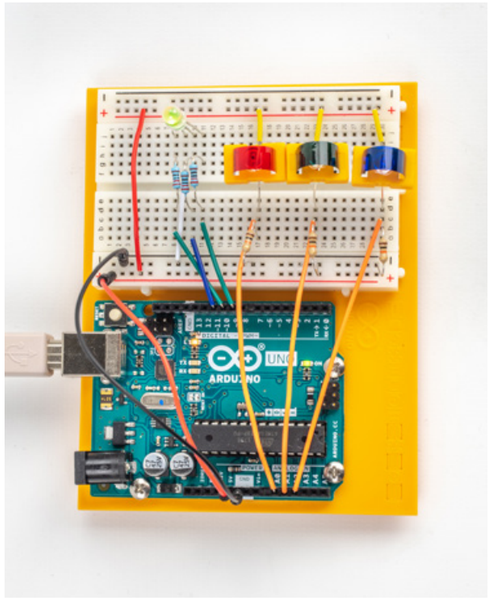
The Education Starter Kit comes with a 170-page guide book, which is one of the key features of this kit. It provides full instructions for each of the 15 projects, and helps students (and educators) easily follow the program. There are also plenty of helpful hints and tips. The kit follows the US Common Standards and focuses on core concepts of coding and electronics.

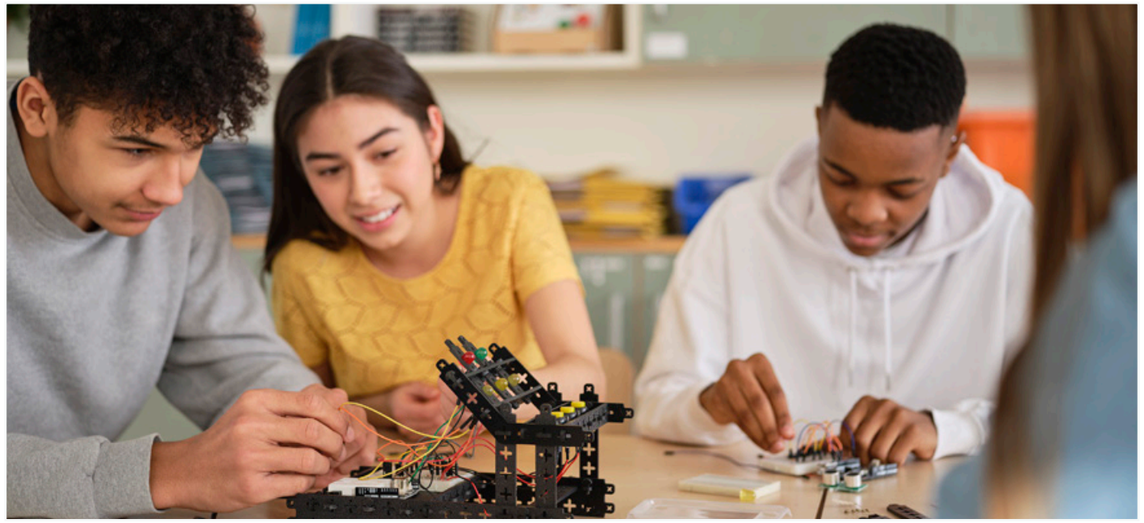
What you say

"THE ARDUINO PLATFORM IS THE BEST WAY TO GET YOUR KIDS INTERESTED IN ELECTRONICS AND CODING. WITH EASY-TO-FOLLOW INSTRUCTIONS ALL LAID DOWN IN A NIFTY PROJECT BOOK, YOUR CHILD (AND EVEN YOU, YOURSELF) WILL HAVE A LOT OF FUN."

- Patrick Sinclair







ARDUINO CTC GO! CORE MODULE

Guide high school students through STEAM lessons, from the basics of electricity and coding to advanced circuit building and programming, with a set of playful, hands-on experiments grounded in the real world.

Engage high school students in **STEAM** subjects, teach them how to use technology as a tool in a playful, hands-on learning environment, and how to apply that knowledge in the real world. A modular cross-curricular program, **CTC GO! CORE MODULE** provides an easy-to-use, practical approach to STEAM concepts through project-based learning and enables students to design, create, and test a series of playful, well-documented projects and easy-to-assemble experiments.

What makes this kit really stand out is the training and support it comes with. This includes a welcome training webinar with an Arduino Education expert, training videos which explain each lesson's concepts, shorter videos which expand on lesson content, and direct email support from an education expert.

WATCH THE ARDUINO CTC GO! CORE MODULE IN ACTION:
YOUTUBE.COM/ARDUINO

Expansion set available:
CTC GO! MOTIONS (see page 20)

STORE.ARDUINO.CC/CTC-GO-CORE
SKU: AKX00015

QUICK LOOK

— Age: 14-17
— No. of students per kit: 24 students & 3 teachers
— No. of practical lessons: 8
— No. of projects: 12 (6 project building, 6 experimental sessions)
— Total learning time: 15 hours
— Languages: English, German, Spanish, Italian, Portuguese, French

WHAT'S IN THE KIT?

The CTC GO! CORE MODULE includes all the materials you need to teach 24 students during 20 sessions of 45 minutes

— 8 Arduino UNO WiFi Rev2 programmable boards
— 8 Arduino Education shields
— 2 different-sized breadboards for every board
— Electronic components including resistors, LEDs, pushbuttons, and buzzers
— Sensors including potentiometers, light, and ultrasonic sensors
— Modular building pieces for building 8 guided projects
— Replacement parts, and much more!

Content & curriculum

The software platform for educators provides all the materials you need for each lesson, resources to help you with lesson preparation, content tips, timing suggestions for classroom management, and curriculum links.

Educators also have access to the software platform for pupils, which includes step-by-step instructions, assembly videos, and fun activities to help them get started with programming, electronics, and building fully-functional, interactive projects.

All materials are created following latest education standards and relevant 21st century skills, and aligned with the National Curriculum of England.

What you say

"THE STUDENT-LED LESSONS NAVIGATE USERS THROUGH WIRING THEIR OWN CIRCUITS AND THEN PROGRAMMING THE INCLUDED ARDUINO BOARD VIA THE ARDUINO SOFTWARE (IDE) TO MAKE LEARNING COME TO LIFE ON THE TABLE IN FRONT OF THEM."

- Corinne Pachl, Technical Editor, Pitsco

KEY LEARNING VALUES

— The basics of electronics, reading schematics, and connecting commonly used components
— The basics of text-based programming language, controlling components, and reading data using code
— Creative ways of using technology, designing and developing physical computing projects
— Working collaboratively to tackle real-world problems within given constraints and instructions

BENEFITS OF USING THE THE CTC GO! CORE

— Everything you need for high school STEAM lessons in one place
— Easy to get started, with all the support you need
— Teach engaging lessons that are relevant, fun, and enable all students to thrive
— Enhance students' problem-solving and communication skills
— Create a playful, collaborative environment where students want to learn
— Extra support for students and educators through direct contact with our experts; concept videos; and meaningful information for a better learning experience

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE:
ARDUINO.CC/EDUCATION/CTC-GO

ARDUINO CTC GO! MOTIONS EXPANSION PACK

Build on your high school students' STEAM knowledge with more complex programming concepts that develop computational thinking and 21st-century skills.

If you've taken your students through the CTC GO! CORE MODULE, the **Motions Expansion Pack** will build on what they have already learned about how to use technology as a tool and how to apply that knowledge in the real world.

The **Motions Expansion Pack** challenges students to go a step further in computing and design and technology by introducing them to new and more complex programming concepts that develop their logical reasoning, computational thinking, and problem-solving skills. The pack consists of essential mechanical and electronic components that allow students to add movements to their projects, and can be used for understanding the application of computational thinking in physics and math.

As an educator, you'll still get all the teaching support you need with webinars, videos, guides, and direct contact with an expert.

STORE.ARDUINO.CC/CTC-GO-MOTIONS
SKU: AKX00021

QUICK LOOK

— Age: 14-17
— No. of students per kit: 24 students & 3 teachers
— No. of lessons: 4
— No. of projects: 4
— Total learning time: 10.5 hours
— Languages: English, Spanish, French

WHAT'S IN THE KIT?

A toolbox with all the specific motions components and materials you need to build several guided experiments and projects in addition to the Core Module components:

— 16 servo motors
— Batteries and wires
— Mechanical assembly pieces
— 2 markers
— 2 screwdrivers, plus more

This kit is an add-on pack for the CTC GO! CORE MODULE (see page 18)

Content & curriculum

This expansion pack includes 14 learning sessions of 45 minutes each, with four guided lessons to learn how to start working with motors; three guided project-building sessions to apply this knowledge; and seven self-guided project-building sessions.

It's aligned to the English National Curriculum, which is used in international schools across the world, and the U.S.'s NGSS for STEAM subjects for students aged 14 to 17. Curriculum links are provided within the educators' software platform.

What you say

"THE ARDUINO EDUCATION CTC KITS HAVE STUDENTS GO THROUGH THIS ENGINEERING DESIGN LOOP IN EACH LESSON, WHICH ENABLES THEM TO PRACTICE ADAPTABILITY, CREATIVITY, AND PERSISTENCE. THESE SKILLS, AND OTHER 21ST-CENTURY SKILLS, CARRY STUDENTS INTO THE CAREERS OF TOMORROW."

- Corinne Pachl, Technical Editor, Pitsco

KEY LEARNING VALUES

— Understanding the basics of servo control and being able to translate servos' rotational and linear motion by using gears and pulleys
— Expanding programming knowledge and concepts, controlling multiple attributes by reading data from sensors
— Being creative in ways of using resources and technology to design and develop physical computing projects
— Working collaboratively and efficiently to tackle real-world problems by following a design process

BENEFITS OF USING THE CTC GO! MOTIONS

— Extend students' learning and challenge them to go one step further
— Boost learning outcomes in STEAM subjects
— An easy-to-implement, seamless addition to the Core Module
— Teach engaging lessons that are relevant, playful, and enable all students to thrive
— Enhance students' problem-solving and teamwork skills with specially-designed content and class dynamics

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE:
ARDUINO.CC/EDUCATION/CTC-GO

ARDUINO EXPLORE IoT KIT

Innovate, create, transform: take your first step in building internet-connected objects. Explore the Internet of Things with Arduino Education.

Get advanced high school and college students started with creating connected devices - known as the **Internet of Things** - quickly and easily. They'll learn how to build internet-connected objects, such as a home security alarm, a classroom counter, and an urban farming device, with ten step-by-step tutorials and projects - fun, creative experiments with real-life components.

Create connections, decompose complex problems into simpler parts, allow students to innovate, and enhance their understanding of real-world technology with the Explore IoT Kit - an industry-standard IoT tool that will help prepare them for their future careers.

The kit includes the Arduino MKR IoT Carrier, which provides infinite possibilities for IoT projects. The integrated sensors, circuits and display leave you free to focus on programming and prototyping your ideas, rather than wiring and troubleshooting.

Find out more about
ARDUINO IOT CLOUD (see page 32)

STORE.ARDUINO.CC/EXPLORE-IOT-KIT
SKU: AKX00027

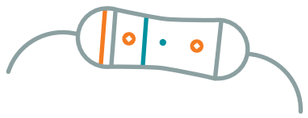
QUICK LOOK

- Age: 16+
- No. of students per kit: 2
- No. of projects: 10
- Total learning time: 10 hours
- Languages: English, Spanish, Italian, German

WHAT'S IN THE KIT?

- Arduino MKR1010
- MKR IoT Carrier designed for this kit
- Temperature, humidity, pressure, UV, moisture, and PIR sensors
- Accelerometer
- Plug-and-play connectors and cables, and much more

WATCH THE EXPLORE IOT KIT IN ACTION: YOUTUBE.COM/ARDUINO



Content & curriculum

Students and educators have access to an online platform with all the content, information and activities you need to learn the basics of IoT in one place. This includes 10 step-by-step hands-on activities covering the fundamentals of IoT: hardware, networking, algorithms and programming, security, and data handling, plus 10 open-ended challenges.

The Explore IoT Kit provides a comprehensive understanding of the Internet of Things. After looking into current academic and industrial standards, we identified important concepts to teach using this kit. This includes how devices communicate and the tools used to facilitate communication, data management, analysis, and computational thinking by using real-world sensors to capture and modify meaningful data.

What you say

"THIS IS WHERE YOU SHOULD START WITH IOT. [...] THEY PROVIDE 10 EDUCATIONAL EXERCISES WHICH COULD EASILY BE EXECUTED BY A STUDENT WITH SOME BACKGROUND IN CODING AND COMPUTERS. THIS WOULD BE A SLAM DUNK IN A HIGH SCHOOL CLASSROOM ENVIRONMENT."

- TC, USA

KEY LEARNING VALUES

- Getting started with the Arduino IoT Cloud to connect and control devices wirelessly
- Collecting, processing, and storing data
- Visualizing data and understanding its meaning
- Serial communication, APIs, JSON, and web servers
- Network security considerations
- Different sensors and how to use them
- Actuators and how to use them

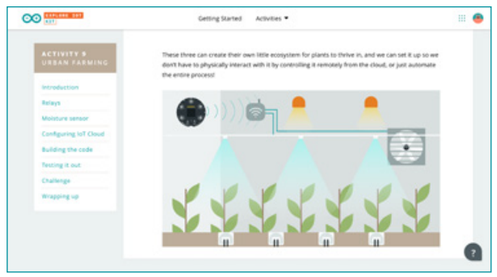
BENEFITS OF USING THE EXPLORE IoT KIT

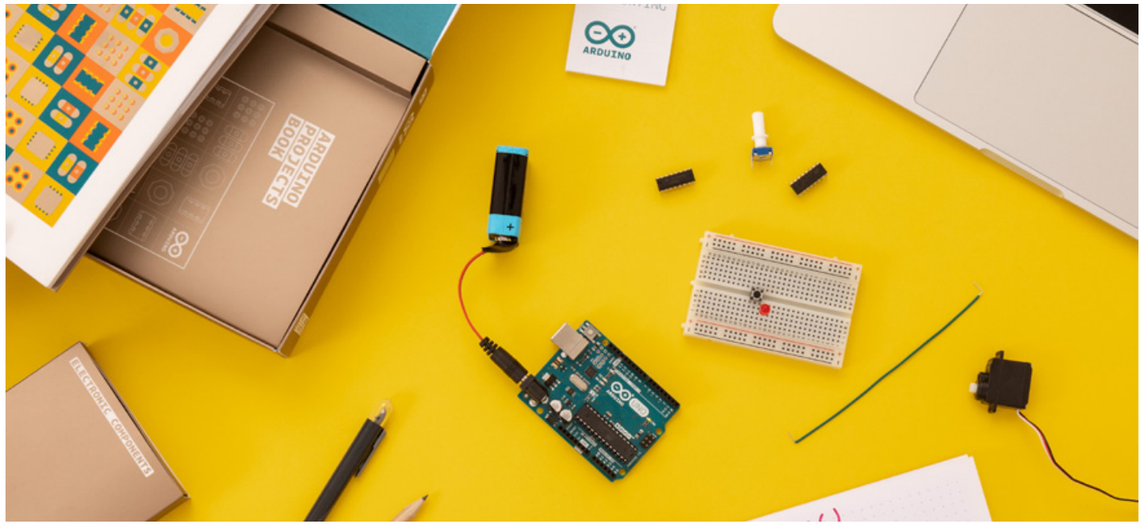
- Get started quickly and easily with the Internet of Things
- Make a complex subject simple and accessible
- Enhance students' understanding of real-world technology and its applications
- Learn critical future skills for 21st century careers
- Be an innovator - learn how to use technology to make an impact on society
- Build functional prototypes inspired by real-world applications
- Gain confidence in designing and making your own connected projects
- Combine your knowledge with actual industry innovations

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE:
ARDUINO.CC/EDUCATION/EXPLORE-IOT-KIT

The Explore IoT Kit includes a 12-MONTH FREE TRIAL to the ARDUINO CLOUD MAKER PLAN (see page 32)

When the trial expires, you'll need to renew your subscription to the Entry Plan or the more comprehensive Maker Plan for a small monthly fee.



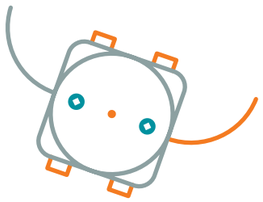


ARDUINO CERTIFICATION PROGRAM

Certify your skills in electronics, programming, and physical computing.

Officially certify your skills and knowledge in Arduino-related electronics, programming, and physical computing. The Arduino Certification Program (ACP) enhances your professional skills while providing official recognition.

Developed in consultation with interaction designers and electronic engineering professionals, and taking leading technology curricula as its foundation, the Arduino Certification Program assesses skills based on practical tasks from the Arduino Starter Kit. This kit, which is included in the bundle, provides a project book and all the components and support you need to get started with coding, electronics, and Arduino in a hands-on way. You can also take the exam on its own, without having to purchase the Starter Kit.



ARDUINO.CC/EDUCATION/CERTIFICATION
SKU: AKX00020 (BUNDLE)
SKU: AKX00001 (EXAM ONLY)

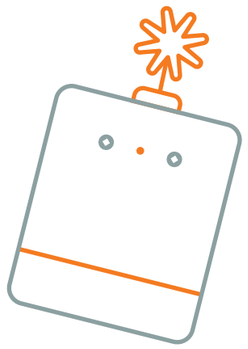
QUICK LOOK

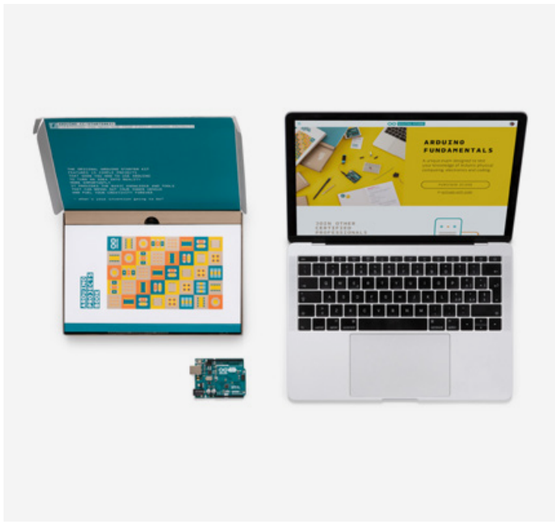
- Age: 16+
- Multiple-choice, online exam
- Answer 36 questions in 75 minutes
- Languages: English, German, Spanish, Italian, Chinese, Greek, Bengali

WHAT'S INCLUDED?

There are two ways to get certified:

- You can purchase the exam on its own (you will have one attempt to pass it).
- You can purchase the exam along with the Arduino Starter Kit in a bundle.





What is the Arduino Certification Program?

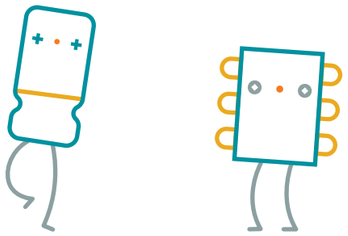
The 75-minute exam is web-based and consists of 36 questions. To obtain your certification, you will need to pass with at least 70 points out of 100 - and there's no long wait for results, as they are available straight after submission.

Once successful, you'll receive a certificate accompanied by a unique QR code. This code allows you to prove the authenticity of your certification and, if you choose to, share the code with others so they can access the certificate's digital information and check its authenticity.

What you say

"ARDUINO'S CERTIFICATION PROGRAM IS PACKED WITH EXCITING SUBJECTS, AND IT'S WORTH TAKING A LOOK AT THEIR OFFER."

- Chris, Chipwired



EXAM SUBJECT AREAS

- ELECTRICITY - Understanding concepts such as resistance, voltage, power and capacitance, and how to measure and calculate them
- READING CIRCUITS AND SCHEMATICS - Understanding how electronics are represented visually, and reading and analyzing electronic circuits
- ARDUINO IDE - Understanding the functionality of the Arduino development environment, serial communication, libraries, and errors
- ARDUINO BOARDS - Understanding the constitution and capabilities of an Arduino board and the functions of its different parts
- FREQUENCY AND DUTY CYCLE - Understanding the concepts of Pulse Width Modulation (PWM) and frequency, and being able to calculate duty cycle
- ELECTRONIC COMPONENTS - Understanding how various electronic components such as LEDs, sensors, buttons, and motors work, and how to use them in a circuit
- PROGRAMMING SYNTAX AND SEMANTICS - Understanding the building blocks of the Arduino programming language such as functions, arguments, variables, and loops
- PROGRAMMING LOGIC - Ability to program various electronic components and read, analyze and troubleshoot Arduino code

BENEFITS OF TAKING THE EXAM

- Add the certification to your resumé to demonstrate your knowledge of electronics, programming, and coding
- Increase your confidence in Arduino-related electronics, programming, and physical computing
- Become part of a wider professional network

NEW! BRACCIO++

STORE.ARDUINO.CC
SKU: T050002

Braccio++ is a fully operational robotic arm, controlled via Arduino.

The next evolution of the Tinkerkit Braccio robot, **Braccio++** is a robotic arm designed solely for higher education, including engineering schools and university institutes of technology – or even advanced high school and college students studying the sciences, industrial science or technology.

There's not a lot this robotic arm with five degrees of freedom isn't capable of. **Braccio++** can be assembled in several ways for multiple tasks, such as moving objects, mounting a camera and tracking your movements, or attaching a solar panel and tracking the movement of the sun. Its uses are almost limitless.

It offers a multitude of possibilities from the outset, including a new Braccio Carrier with LCD screen, new RS485 motors, a brand new Ecoplastic, and an enhanced experience. You can simply program and communicate with the new Arduino Smart Motors, the core of this new revision.

In addition to the open-source hardware in the kit, there's an e-learning platform with step-by-step instructions, lessons, and other learning materials.

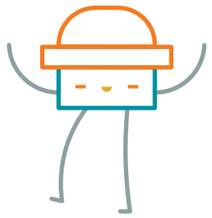
QUICK LOOK

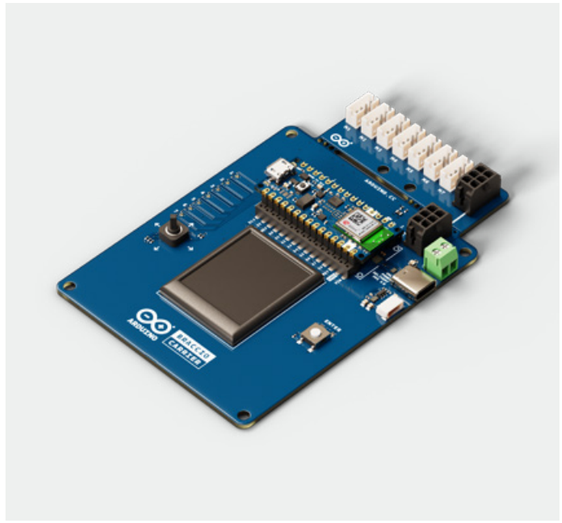
— Age: 16+
— No. of students per kit: up to 3
— No. of projects: 3
— Languages: English

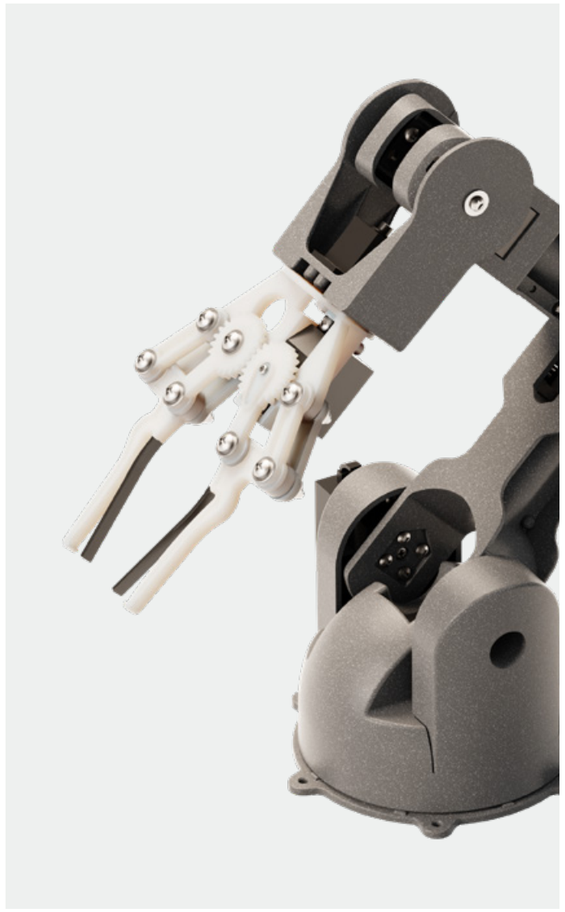
WHAT'S IN THE KIT?

The kit includes several parts and mechanical components, including (but not limited to):

— A printed guide on how to assemble Braccio++, make it work with the motors, and upload your first sketches
— Assembly parts, screws, nuts, springs, and a screwdriver
— 6 Arduino Smart Motors
— Arduino Braccio Carrier
— Arduino Nano RP2040/Nano BLE sense







KEY LEARNING VALUES - HIGH SCHOOL

— Motions and forces
— Interactions of energy and matter
— Manufacturing processes, product design robotics, and automation
— Robotic or automated system arm construction
— The concepts of torque, gear ratio, stability, and weight of payload
— The concepts of linkages and gearing in end effectors and their use in a robotic or an automated arm system

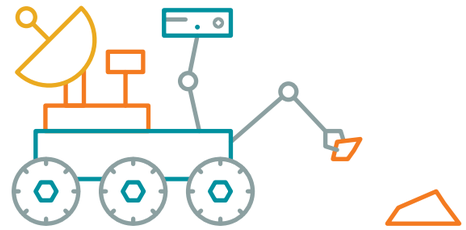
KEY LEARNING VALUES - UNIVERSITY

— Kinematic chains
— Mathematical tools for kinematics and dynamics of robot arms
— Methods to reason about 3-dimensional space and relationships between coordinate frames
— Delivering a payload to a specified location
— The geometry and mathematical representation of rigid body motion
— Forward and inverse kinematics of articulated mechanical arms
— Trajectory generation
— Manipulator dynamics
— Actuation and design issues
— Manipulator control

BENEFITS OF THE BRACCIO++

— Create a small replica of a real industrial robot used on an assembly line or in an automotive factory
— Teach real life applications of physical concepts through lifting, placing, rotating, and sorting different items
— Adaptability: Braccio++ can easily add mobility and enhance other projects

Visit our website to explore BRACCIO++ CONTENT



ARDUINO ENGINEERING KIT R2

Designed around project-based learning, this kit is a hands-on learning experience that helps students develop key engineering skills and learn core aspects of mechatronics through MATLAB and Simulink programming.

The **Engineering Kit R2** is a versatile, practical tool that provides students with an understanding of basic engineering and mechatronic core concepts through real-world connected projects.

Students are able to connect what they learn with real-world industries, are encouraged to think critically, and improve their depth of knowledge by learning theoretical concepts through experimentation. The kit demonstrates key control system concepts, core aspects of mechatronics, and MATLAB and Simulink programming. Ideal for advanced high school and college students, the projects cover the basics of model-based design, control systems, image processing, robotics, signal processing, and more - plus they're fun to do!

MATLAB provides an environment to program, design, and iterate complex computational problems related to image processing, data analytics, and other embedded applications.

STORE.ARDUINO.CC/ENGINEERING-KIT-R2
SKU: AKX00022

QUICK LOOK

— Age: 17+
— No. of students per kit: 2-3
— No. of projects: 3
— Languages: English, Spanish

WHAT'S IN THE KIT?

— Arduino Nano 33 IoT
— Nano Motor Carrier
— Mechanical pieces to assemble the projects
— Batteries, motors, cables, wheels
— Webcam, and much more!
— A hard plastic, stackable toolbox ideal for storage and years of use
— A one-year individual license for MATLAB and Simulink
— E-learning platform

WATCH THE ENGINEERING KIT R2 IN ACTION: YOUTUBE.COM/ARDUINO

In partnership with MathWorks

Content & projects

The Arduino Engineering Kit R2 features three hands-on projects that can be tailored to your curriculum.

— Self-balancing motorcycle: Design a control system to keep this motorcycle upright using a flywheel for balance
— Webcam controlled rover: Build and program a rover that can navigate between given reference points using a camera to locate its position and move objects with a forklift mechanism
— Drawing robot: Build and program a robot that can duplicate any drawing it's given on a whiteboard

In addition to the open-source hardware in the kit, each student has access to an e-learning platform with step-by-step instructions, lessons, and other learning materials. The kit also comes with a one-year individual free trial license for MATLAB and Simulink, providing the students with hands-on experience in system modeling and embedded algorithm development.

What teachers say

"THE KIT WAS VERY EASY TO GET STARTED WITH. THE COURSEWORK IS LAID OUT NICELY INTO CHAPTERS AND IS EASY TO FOLLOW. THE STEP-BY-STEP PROCESS TO CONNECT THE BOARDS AND COMPONENTS TO THE VARIOUS SOFTWARE (ARDUINO IDE, MATLAB, SIMULINK) GIVES ANY USER A FOUNDATION OF CONFIDENCE IN THE BASICS OF THE TECHNOLOGY BEFORE JUMPING INTO THE MORE COMPLEX."

- Tom Rendon, teacher, Tulsa University, USA

KEY LEARNING VALUES

— System modeling
— Control theory
— Robotics and mechatronics
— Image and video processing
— Text-based programming with MATLAB
— Visual programming with Simulink
— How to analyze and visualize data
— How to model and simulate behavior of dynamic systems

BENEFITS OF USING THE ENGINEERING KIT

— Extensive learning outcomes provide students with a strong understanding of basic engineering concepts
— Students want to learn because the projects are fun and create an outcome-driven environment
— Broaden your students' 21st century skills with collaborative learning and problem-solving, and challenge them to think critically
— Help students connect their knowledge with real-world industries
— Educators can freely tailor the kit to their students' needs and their own curriculum
— Improve depth of knowledge by learning theoretical concepts in a hands-on way

PREVIEW THE CONTENT & TRY A DEMO LESSON HERE: ARDUINO.CC/EDUCATION/ENGINEERING-KIT

Includes a 1-YEAR individual FREE TRIAL LICENSE for MATLAB and Simulink.

ARDUINO REPLACEMENT PARTS

In the excitement (and sometimes chaos) of hands-on classroom learning, small parts can go missing. Here, you'll find the most common replacement parts - we recommend having them on standby just in case!

Arduino Replacements Pack

STORE.ARDUINO.CC/PRODUCTS/ARDUINO-REPLACEMENTS-PACK
SKU: AKX00030

This **replacement pack** extends and enriches any Arduino kit, and provides back up components for most Arduino Education kits when you need them. It contains 183 parts commonly-used in electronic projects in school, universities, and at home.

- 10 resistors 220Ω, 5 resistors 680Ω, 5 resistors 560Ω, 5 resistors 1kΩ, 5 resistors 4.7Ω, 5 resistors 10MΩ, 5 resistors 1.2Ω, 10 resistors 10kΩ, 5 resistors 1MΩ
- Several kinds of actuators: 1 piezo buzzer, 5 red LEDs 5mm, 5 green LEDs 5mm, 5 yellow LEDs 5mm
- 1 temperature sensor [TMP36], 1 tilt sensor, 2 phototransistors, 1 mosfet transistor, 2 capacitors 100 uF, 1 zener diode
- 5 potentiometers, 5 push buttons 12 mm, 1 optocoupler, 1 steel ball 12mm diameter, 1 Battery Wire 9V with open lead
- And much more!

Engineering Kit Motors Backup

STORE.ARDUINO.CC/COLLECTIONS/EDU-FAMILY/PRODUCTS/ENGINEERING-KIT-MOTORS-BACKUP
SKU: AKX00033

This kit contains one servo motor, one geared motor with encoder, and one micro DC motor with encoder. Each of those motors can be used as a **spare component** for Arduino Engineering Kit R2 projects, or to get any other prototype to start moving around.

ARDUINO SCIENCE JOURNAL APP

SJ.ARDUINO.CC

The Arduino Science Journal app transforms smartphones, tablets, and Chromebooks into pocket-size science lab tools that encourage students to explore their world.

As they conduct experiments, students can record observations and make new, exciting discoveries. Through documentation and reflections, they can collect environmental data in real-time, and conduct experiments - just like a real scientist.

The **Science Journal** app can be used on its own or explored together with external sensors compatible with microcontrollers that connect using Bluetooth. By using external sensors, students can extend their experimentation and learning.

For a more in-depth experience of the world of science, the app comes with a range of free, topic-related lessons that are aligned with the NGSS and England's National Curriculum for Science.

The app is **classroom-friendly**, since it has been designed to teach the scientific method, problem-solving, and applying mathematical skills through real-life examples, and it can be applied in different educational backgrounds, from primary school right through to university. Students can sign in and access their experiments on any device to continue their learning and exploring the world, wherever they are.

Compatible with the ARDUINO NANO 33 BLE SENSE (see page 35)

BENEFITS OF USING THE APP

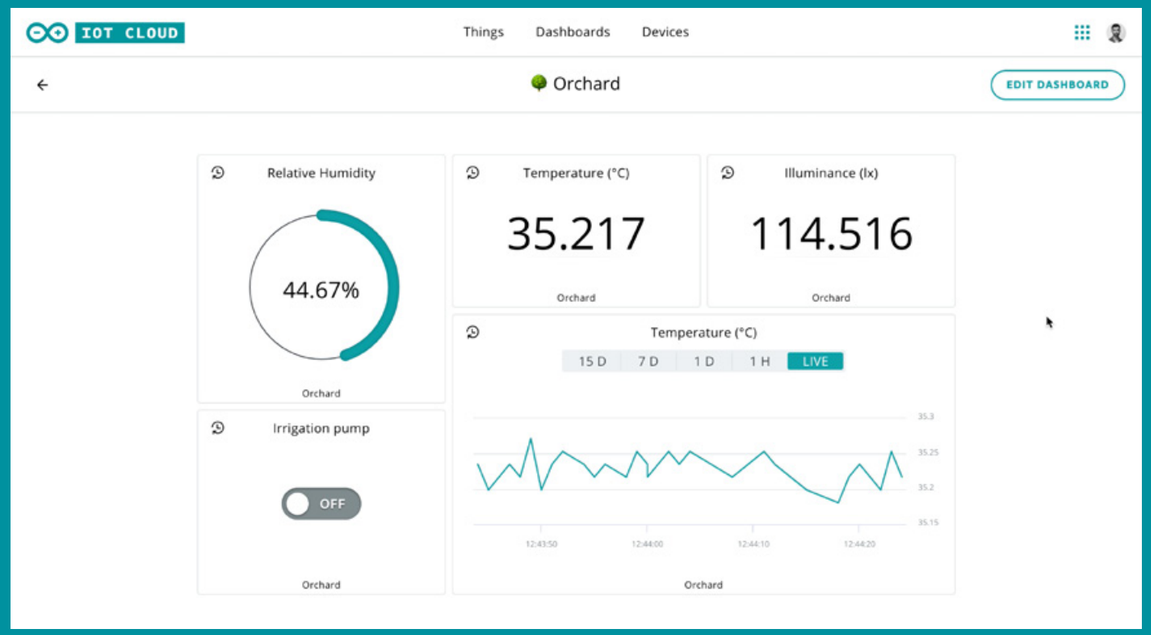
- Classroom & homeschool friendly
- Easy data collection
- Enhance existing lesson plans
- Connect the digital and the physical worlds from your pocket

What you say

"I WISH THERE WERE MORE APPS LIKE THIS ONE. IT DOES A JOB, IT DOES IT WELL, AND IT IS AN EDUCATIONAL TOOL WITH GREAT POTENTIAL."

- Play Store user review

Download on the App Store
GET IT ON Google Play



ARDUINO IoT CLOUD PLATFORM

CREATE.ARDUINO.CC/IOT

Connect the Cloud to the world around you

The **Arduino IoT Cloud** allows anyone to create IoT applications in just a few simple steps. With a combination of smart technology, user-friendly interfaces, and powerful features, our cloud is for everyone: students and educators, makers, and professionals alike.

How does the Arduino IoT Cloud work?

It really is as simple as connecting a device, creating properties and a dashboard to monitor it.

1. **Connect a device** - a physical object, such as a hardware board, that can be contained inside a product. The board will read sensors, control actuators, and communicate with the IoT Cloud.
2. A sketch with the basics to sync your device and the dashboard will be automatically generated. Complete the sketch with what you want the hardware to do and **upload** it to the board.
3. **Monitor and control** your device with dashboards.

The Arduino IoT Cloud is compatible with the Explore IoT Kit (see page 22)

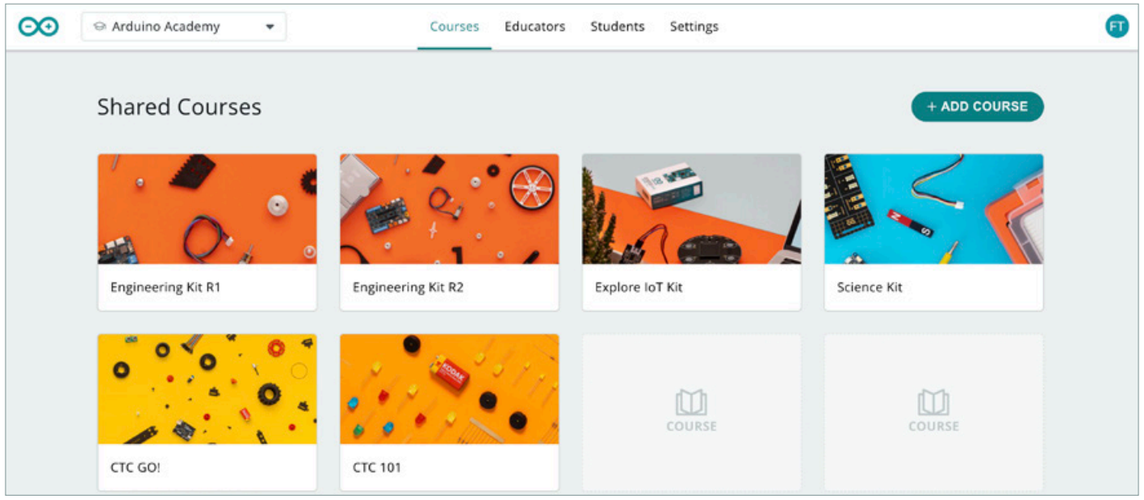
WITH IoT CLOUD YOU GET

- Direct links to the Arduino environment (the Arduino online IDE)
- Automatically generated sketches.
- The ability to build sensor networks
- Real-time data monitoring
- Wi-Fi compatibility
- A dashboard with 15+ unique widgets
- Compatible with mobile devices (phone or tablet)
- PC, Mac, and Chromebook* compatibility

BENEFITS OF USING THE IOT CLOUD IN THE CLASSROOM

- Develop knowledge in data science
- Use tech that's the standard for future careers
- Keep up-to-date with new tech
- Digital homework assignments
- Use it from anywhere

* Not all products or boards are compatible with Chromebooks. Contact us to find out more.



ARDUINO CLASSROOM

CLASSROOM.ARDUINO.CC

If you're an educator managing a group of students, you can now set up a digital Classroom. In your Classroom, you can see all the kits you have registered and add courses for your students to do.

You can share these courses with any number of people, switch between them at any time, and transfer products between them.

If you're the Classroom administrator, you are in full control of who can access your courses, meaning you can add and remove new members whenever you like. When you invite your colleagues, you can choose whether they're an administrator or if they should take the teacher role.

Teachers can add and remove students from the Classroom, but cannot manage other educators or change Classroom settings. Both admins and teachers will see the educator version of the online content, including educator tips, logbooks and more. Roles can be changed whenever you need, and you can have multiple admins at the same time.

Classroom is compatible with all Arduino Education kits.

How does the Arduino Classroom work?

Setting up a classroom takes a matter of minutes.

1. Go to classroom.arduino.cc and **register your classroom** by filling in information about you and your teaching environment (you will need an Arduino account to do this).
2. **Register the product** you want to share with your colleagues or students (you'll need the registration code for your kit).
3. **Share** it with your colleagues and your students .

BENEFITS OF USING THE ARDUINO CLASSROOM

As an educator, Classroom offers you many possibilities:

- Create your classroom and share it with other educators so you can all invite students to your different courses
- All admin or teacher users can see the 'educator' version of the online content, which includes teacher support and lesson suggestions
- Classroom provides better administration advantages to institutions with multiple collaborating educators
- It's a safe and easy-to-use system even for our youngest users. If your students are too young for email, you can invite them by sharing a classroom code
- Students' accounts can be removed at any point, and new students can be invited for the next academic year
- If your students are under 14, they'll only see child-safe content, their accounts will be anonymized, and no personal data is collected
- You can share your lessons via Google Classroom

ARDUINO BOARDS AND HARDWARE

Different types of boards

All boards can be programmed using the same programming language, and code snippets are interchangeable between boards. Different boards provide different functionalities, such as Wi-Fi or Bluetooth connectivity, embedded sensors, or more memory space for student-made programs. Boards can be expanded with sensors and actuators to build fully-functional systems.

Open-source hardware & software

The open-source hardware allows advanced students to go in-depth into how the technology is built, and even learn how to make their own boards. Both the Arduino programming environment and the software running on the boards (known as the Arduino Core) are open-source, and freely available for students to experiment with.

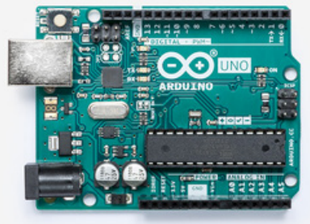
Arduino Education specific boards

Arduino Education boards have been designed with the classroom in mind. They are reusable, replaceable, and upgradeable. All the different types of boards have been tested for durability and student safety.

CONTENT

This openness extends to our content as well. Once you have Arduino boards or kits, you can expand on the content we provide you with, or create something entirely new. Boards are the base of Arduino kits, and content is tailored to each board and the extra parts included in the kit. You can add other parts or even adjust the kit content to other boards.

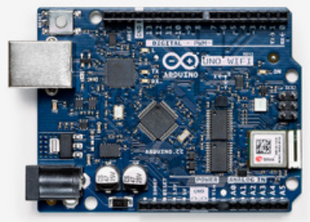
MOST USED BOARDS IN OUR EDUCATIONAL KITS



ARDUINO UNO REV3

This board is your entry to the unique Arduino experience: great for learning the basics of how sensors and actuators work, and an essential tool for project prototyping.

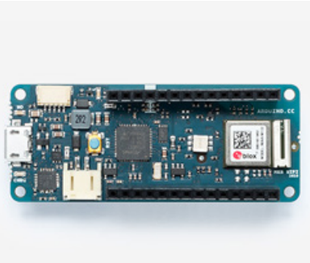
STORE.ARDUINO.CC/UNO-REV3
SKU: A000066



ARDUINO UNO WIFI REV2

This board is the ideal way to get started making your first Internet of Things application, as it includes an onboard Inertial Measurement Unit (IMU) and Wi-Fi.

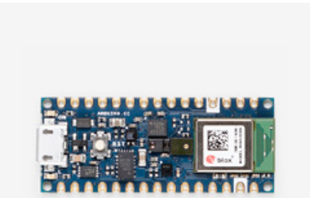
STORE.ARDUINO.CC/UNO-WIFI-REV2
SKU: ABX00021



ARDUINO MKR WIFI 1010

This board simplifies the prototyping of Wi-Fi-based IoT applications thanks to the flexibility of the ESP32 module and its low power consumption.

STORE.ARDUINO.CC/MKR-WIFI-1010
SKU: ABX00023



ARDUINO NANO 33 BLE SENSE

The Arduino Nano 33 BLE Sense is an evolution of the traditional Arduino Nano 33 BLE, but with a series of embedded sensors including humidity, temperature, light, microphone, and many more.

STORE.ARDUINO.CC/NANO-33-BLE-SENSE
SKU: ABX00035
SKU: ABX00031 (WITHOUT HEADERS)

SHIELDS AND CARRIERS - ADD EXTRA FUNCTIONALITY TO YOUR PROJECTS

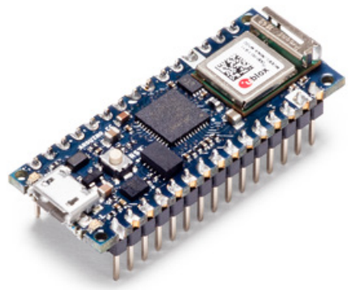
Shields and carriers are extensions to your board's capabilities. They help you prototype projects that require, for example, Wi-Fi or Bluetooth connectivity, several motors (servo or DC) or extra memory, if your main board doesn't include those characteristics.

Shields are boards that can be plugged on top of other Arduino boards, extending their functionality. Most Arduino shields are stackable, so you can add more than one at a time.

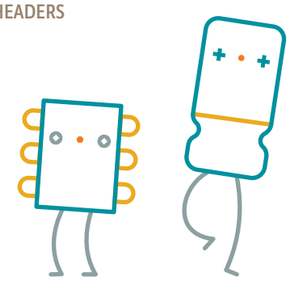
BOARD + SHIELD + SHIELD = NEW PROJECT!

To connect shields and carriers to a board, you'll need headers. If you have a board without headers, you will need to brush up on a on your soldering skills!

WITHOUT HEADERS

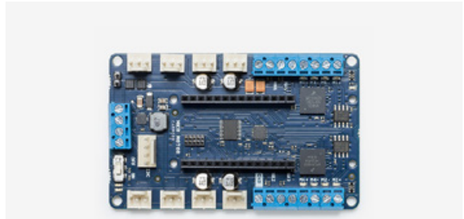


WITH HEADERS



Because most schools aren't equipped with soldering equipment, we recommend buying boards which have headers.

Carriers are also designed as add-ons for your boards. A carrier can be used to connect other actuators and sensors, or attach DC or servo motors. Both shields and carriers come with a dedicated library that allows you to add new functions and create objects to support your hardware.



ARDUINO MKR MOTOR CARRIER

This carrier is useful if you want to connect several motors, sensors, and actuators via a series of 3-pin male headers to your mechatronic project.

STORE.ARDUINO.CC/MKR-MOTOR-CARRIER
SKU: ASX00003

ARDUINO NANO MOTOR CARRIER

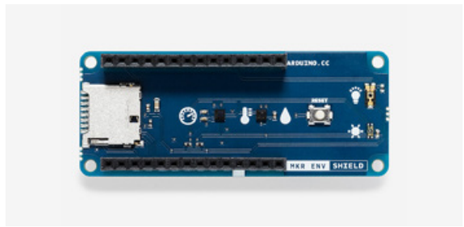
The Nano Motor Carrier provides a quick and easy way to connect and control motors. Designed to facilitate motor control, it takes care of the electronics, allowing students to focus on prototyping and building their projects.

STORE.ARDUINO.CC/NANO-MOTOR-CARRIER
SKU: ASX00003

ARDUINO MKR EDUCATION SHIELD

This is a custom-made shield specially tailored for educational purposes to enable quick and easy learning while building projects.

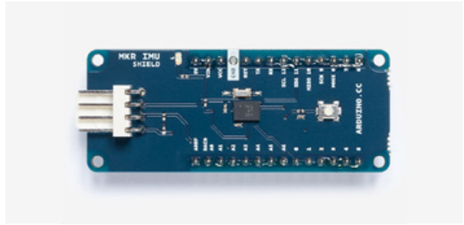
STORE.ARDUINO.CC/EDUCATION-SHIELD
SKU: TSX00006



ARDUINO MKR ENV SHIELD

This shield allows a MKR board to acquire environmental data collected by an array of sensors (pressure, temperature, humidity, and UVA/UVB/light intensity).

STORE.ARDUINO.CC/MKR-ENV-SHIELD
SKU: ASX00011



ARDUINO MKR IMU SHIELD

This shield allows a board to integrate inertial measurement and get the three-dimensional acceleration, yaw rate, and magnetic field strength data in three perpendicular axes.

STORE.ARDUINO.CC/MKR-IMU-SHIELD
SKU: ASX00002

ARDUINO MKR IoT CARRIER

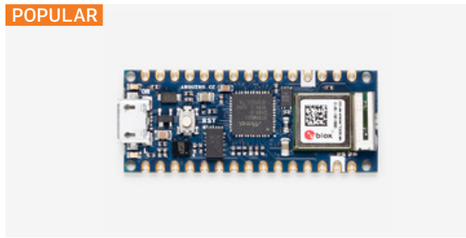
Control what you want, how you want to. The MKR IoT Carrier provides infinite possibilities for IoT projects.The integrated sensors, circuits and display leave you free to focus on programming and prototyping your ideas, rather than wiring and troubleshooting.

STORE.ARDUINO.CC/MKR-IOT-CARRIER
SKU: ABX00047

ARDUINO NANO FAMILY

Nano boards are characterized by their tiny size, yet powerful and robust footprint. They are the ideal choice for wearable projects like cosplay or for experimenting with drones, for a very competitive price.

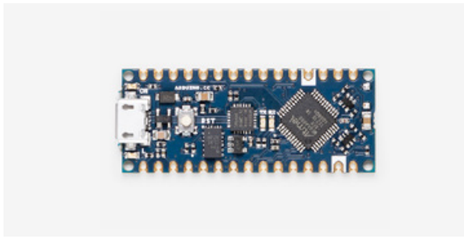
POPULAR



ARDUINO NANO 33 IOT

Wi-Fi and Bluetooth connectivity, combined with low power architecture, make this board ideal for your connected projects.

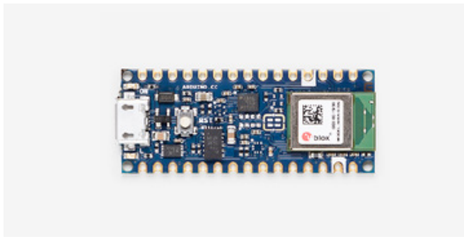
STORE.ARDUINO.CC/NANO-33-IOT
SKU: ABX00032
SKU: ABX00027 (WITHOUT HEADERS)



ARDUINO NANO EVERY

A robust and reliable board that's perfect for beginners interested in experimenting with hardware.

STORE.ARDUINO.CC/NANO-EVERY
SKU: ABX00033
SKU: ABX00028 (WITHOUT HEADERS)

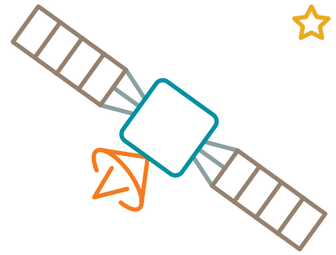


ARDUINO NANO 33 BLE

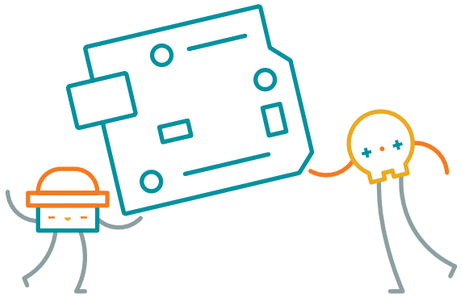
This board is based on the powerful Nordic nRF52840 Bluetooth SoC, a Cortex-M4F Arm processor that can handle the most demanding projects.

STORE.ARDUINO.CC/NANO-33-BLE
SKU: ABX00034
SKU: ABX00030 (WITHOUT HEADERS)

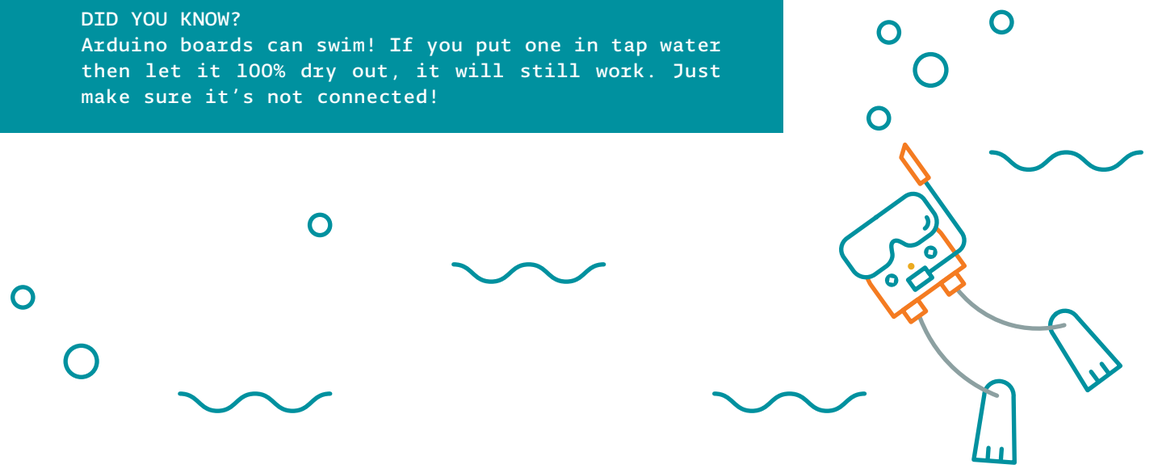
DID YOU KNOW?
The first ever Guatemalan satellite was programmed in part with the Arduino IDE!



DID YOU KNOW?
The biggest working Arduino UNO board is in Dubai!



DID YOU KNOW?
Arduino boards can swim! If you put one in tap water then let it 100% dry out, it will still work. Just make sure it's not connected!



GET IN TOUCH

Buy Arduino Education products
for your school or homelearners from
STORE.ARDUINO.CC

Buy from selected selected Arduino
Education Partners at
STORE.ARDUINO.CC/DISTRIBUTORS

NEED SOME HELP?

Contact us at
ARDUINO.CC/EDUCATION/CONTACT-US

"ARDUINO EDUCATION MAKES TECHNOLOGY, PROGRAMMING, AND CODING ACCESSIBLE TO EVERYONE, PUTTING IT INTO THE HANDS OF EVERY STUDENT AND EDUCATOR."

- David Cuartielles, Co-Founder, Arduino

ARDUINO.CC/EDUCATION