WHAT IS ARDUINO?

Arduino is an open source electronics creative platform for creators and developers that is based on free, flexible, and easy-to-use hardware and software. This platform enables the creation of several variants of single-board microcomputers, which the community of creators can put to various uses.

HOW ARDUINO FUNCTION?

- Arduino is a simple solution for anyone to create interactive projects. The software and programming language's key characteristic is its simplicity and ease of use. Arduino has software that includes an integrated development environment (IDE) and tools for transferring firmware to the microcontroller.
- Arduino is a project, not a single brand of board, which means that numerous types of boards can share its core design. There are Arduinos with basic or enhanced features, Arduinos geared toward the Internet of Things or 3D printing, and, of course, a wide price range.

Award-winning - Standard-Aligned - Hands-On Learning
Experiential & problem Based

ARDUINO ALLOWS STUDENTS TO 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.

Arduino Students Kit Features & Benefits

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

RECOMMENDED FOR AGE 11 - 14

- Affordable
- Easy to get started with step-by-step lessons
- No experience is required for educators, parents, or children
- Lessons are engaging with real-world topics
- Use the kit at home just like students would be using it in class
- Go to at the speed of the individual ability

What's in the Kit?

- **1X ARDUINO UNO**
- **1X USB CABLE**
- **1 X BOARD MOUNTING BASE**
- **1X MULTIMETER**
- **1X 9V BATTERY SNAP**
- **1X 9V BATTERY**
- **20X LEDS (5 R, 5 G, 5 Y & 5 B)**
- **5X RESISTORS 560 Ω**
- **5X RESISTORS 220 Ω**
- **1X BREADBOARD 400 POINTS**
- **1X RESISTOR 1KΩ**
- **AND MANY MORE..**

LESSONS INCLUDED

- ➔ SPORTS ROBOT
- ➔ HOLIDAY LIGHTS
- ➔ MUSICAL KEYBOARD
- ➔ SMART GREENHOUSE
- ➔ ELECTRICITY BASICS

ARDUINO

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Arduino Education Starter Kit Features & Benefits

- 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 individual ability

RECOMMENDED FOR AGE 11 - 14

What's in the Kit?

- **4X ARDUINO UNO**
- **4X USB CABLE**
- **4X BOARD MOUNTING BASE**
- **4X MULTIMETER**
- **4X 9V BATTERY SNAP**
- **4X 9V BATTERY**
- **80X LEDS (5 R, 5 G, 5 Y & 5 B)**
- **20X RESISTORS 560 Ω**
- **20X RESISTORS 220 Ω**
- **4X BREADBOARD 400 POINTS**
- **4X RESISTOR 1KΩ**
- **AND MANY MORE..**

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

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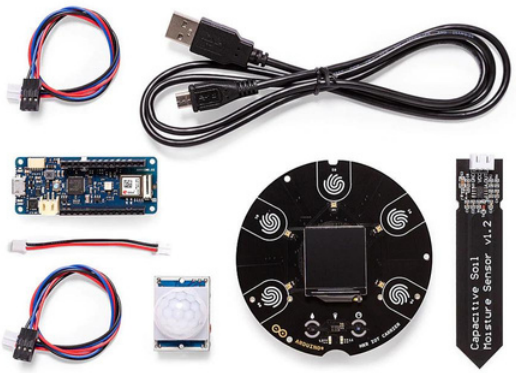
Arduino Explore IoT Kit Features & Benefits

- 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

RECOMMENDED FOR AGE 16+

What's in the Kit?

- **1X ARDUINO MKR1010**
- **1X MKR IOT CARRIER**
- **1X MICRO USB CABLE**
- **1X PLUG AND PLAY CABLES**
- **1X MOISTURE SENSOR**
- **1X PIR SENSOR**



KEY LEARNING VALUES

→IOT CLOUD TO CONNECT AND CONTROL DEVICES WIRELESSLY
→COLLECTING, PROCESSING,& STORING DATA
→VISUALIZING DATA & 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

ARDUINO

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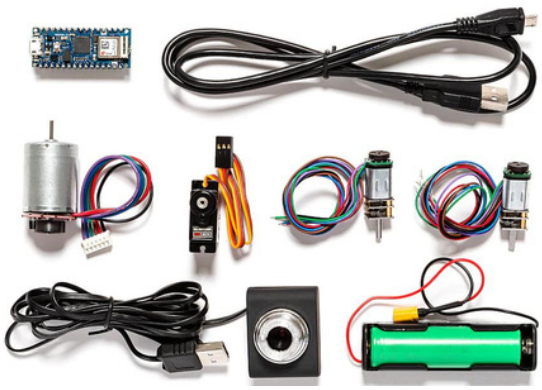
Arduino Engineering Kit R2 Features & Benefits

- 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

RECOMMENDED FOR AGE 17+

What's in the Kit?

- **1X LI-ION BATTERY & BATTERY HOLDER**
- **2X MICRO DC MOTORS WITH ENCODER**
- **1X DC MOTORS WITH ENCODER**
- **1X USB CABLE**
- **1X MARKERS**
- **1X SERVO MOTOR**
- **1X WEB CAM**
- **1X NANO MOTOR CARRIER**
- **1X NANO 33 IOT**
- **1X ALLON KEY**
- **MECHANICAL PIECES**



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

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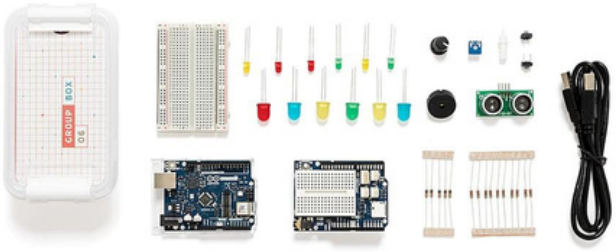
Arduino CTC GO! Core Module Features & Benefits

RECOMMENDED FOR AGE 14 - 17

- 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

What's in the Kit?

- **8 ARDUINO UNO WIFI REV2 BOARDS**
- **8 ARDUINO EDUCATION SHIELDS**
- **2 DIFFERENT-SIZED BREADBOARDS**
- **9V BATTERIES**
- **MODULAR BUILDING PIECES**
- **SENSORS**
- **LEDS**
- **PUSHBUTTONS**
- **BUZZERS**
- **AND MORE..**



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**

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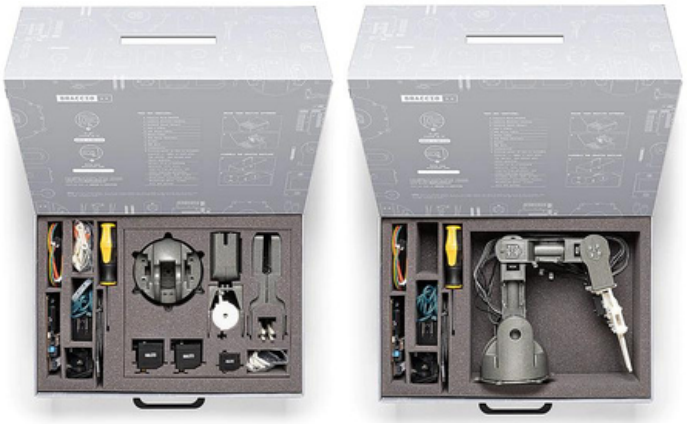
Arduino BRACCIO++ Features & Benefits

RECOMMENDED FOR AGE 16+

- Create a small replica of a real industrial robot used on an assembly line or 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

What's in the Kit?



- **A PRINTED GUIDE**
- **ASSEMBLY PARTS, SCREWS, NUTS, SPRINGS, AND A SCREWDRIVER**
- **6 ARDUINO SMART MOTORS**
- **ARDUINO BRACCIO CARRIER**
- **ARDUINO NANO RP2040**

KEY LEARNING VALUES

- **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**

ARDUINO

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WHAT IS 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.

REQUIRED AGE 16+

BENEFITS OF ARDUINO CERTIFICATION PROGRAM

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