# Arduino Student Kit

### **SKU** AKX00025 **Barcode** 7630049202603



The Arduino Student Kit is a hands-on, step-by-step remote learning tool for ages 11+: get started with the basics of electronics, programming, and coding at home. No prior knowledge or experience is necessary as the kit guides you through step by step. Educators can teach their class remotely using the kits, and parents can use the kit as a homeschool tool for their child to learn at their own pace. Everyone will gain confidence in programming and electronics with guided lessons and open experimentation.

Our online platform and content, that you can access by using this kit, are available in MULTIPLE languages.

### Overview

Learn the basics of programming, coding and electronics including current, voltage, and digital logic. No prior knowledge or experience is necessary as the kit guides you through step by step.

You'll get all the hardware and software you need for one person, making it ideal to use for remote teaching, homeschooling, and for self-learning. There are step-by-step lessons, exercises, and for a complete and in-depth experience, there's also extra content including invention spotlights, concepts, and interesting facts about electronics, technology, and programming.

Lessons and projects can be paced according to individual abilities, allowing them to learn from home at their own level. The kit can also be integrated into different subjects such as physics, chemistry, and even history. In fact, there's enough content for an entire semester.

#### How educators can use the kit for remote teaching

The online platform contains all the content you need to teach remotely: exclusive learning guidance content, tips for remote learning, nine 90-minute lessons, and two open-ended projects. Each lesson builds off the previous one, providing a further opportunity to apply the skills and concepts students have already learned. They also get a logbook to complete as they work through the lessons.

The beginning of each lesson provides an overview, estimated completion times, and learning objectives. Throughout each lesson, there are tips and information that will help to make the learning experience easier. Key answers and extension ideas are also provided.

#### How the kit helps parents homeschool their children

This is your hands-on, step-by-step remote learning tool that will help your child learn the basics of programming, coding, and electronics at home. As a parent, you don't need any prior knowledge or experience as you are guided through step-by-step. The kit is linked directly into the curriculum so you can be confident that your children are learning what they should be, and it provides the opportunity for them to become confident in programming and electronics. You'll also be helping them learn vital skills such as critical thinking and problem-solving.

#### Self-learning with the Arduino Student Kit

Students can use this kit to teach themselves the basics of electronics, programming, and coding. As all the lessons follow step-by-step instructions, it's easy for them to work their way through and learn on their own. They can work at their own pace, have fun with all the real-world projects, and increase their confidence as they go. They don't need any previous

knowledge as everything is clearly explained, coding is pre-written, and there's a vocabulary of concepts to refer to.

### **Tech Specs**

The Arduino Student Kit comes with several parts and components that will be used to build circuits while completing the lessons and projects throughout the course. Here is a brief description of what is included in the kit:

- Access code to exclusive online content including learning guidance notes, step-by-step lessons and extra materials such as resources, invention spotlights and a digital logbook with solutions.
- 1 Arduino Uno
- 1 USB cable
- 1 Board mounting base
- 1 Multimeter
- 1 9V battery snap
- 1 9V battery
- 20 LEDs (5 red, 5 green, 5 yellow & 5 blue )
- 5 Resistors 560 Ω
- 5 Resistors 220 Ω
- 1 Breadboard 400 points
- 1 Resistor 1kΩ
- 1 Resistor 10kΩ
- 1 Small Servo motor
- 2 Potentiometers 10kΩ
- 2 Knob potentiometers
- 2 Capacitors 100uF
- Solid core jumper wires
- 5 Pushbuttons
- 1 Phototransistor
- 2 Resistors 4.7kΩ
- 1 Jumper wire black
- 1 Jumper wire red
- 1 Temperature sensor
- 1 Piezo
- 1 Jumper wire female to male red
- 1 Jumper wire female to male black
- 3 Nuts and Bolts

## Conformities

The following Declarations of Conformities have been granted for this board:

CE

FCC

UKCA

REACH

For any further information about our certifications please visit <u>docs.arduino.cc/certifications</u>