

# 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 tracker, and an urban farming device, by following the content step-by-step tutorials for ten different projects - fun, creative experiments with real-life components.

Create connections, make a complex subject simple, allow students to innovate, and enhance their understanding of real-world technology with the Arduino Explore IoT Kit.

NUMBER OF STUDENTS PER KIT: Optimal for 2 students per kit

NUMBER OF LESSONS / PROJECTS: 10 step-by-step hands-on activities

LANGUAGES: English

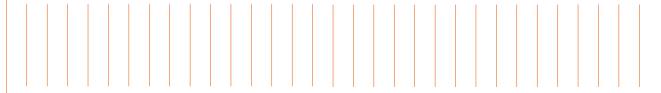
**TARGET**: 16 + years (High School)

For more info visit: store.arduino.cc/edu

"IoT is rapidly becoming a fundamental part of everyone's life, from cars that can be controlled from the phone to remote control of the home. In all cases, it means a different way of looking at the world, a different way of thinking."

Chris Rogers, Professor B.S., M.S. & Ph.D. Mechanical Engineering





#### WHAT IS THE EXPLORE IOT KIT?

The Arduino Explore IoT Kit has been created as a gateway to provide a comprehensive understanding of how the digital world of connected objects and people work. The kit helps you get advanced high school and college students started with the fundamental concepts of the Internet of Things quickly and easily. Students will learn to harness the power of the Arduino IoT Cloud to collect data, understand how devices communicate with each other, and which tools to use to facilitate communication. They'll also learn about data management, analysis, and computational thinking - serious technology made simple as it's based on open hardware and plug-and-play connections.



### **KEY LEARNING**

# VALUES

- Using the IoT Cloud and connected devices
- Collecting, processing, and storing data
- Graphing and visualizing data
- Serial communication, APIs, JSON and web servers
- Different sensors and how to use them

#### **PRODUCT**

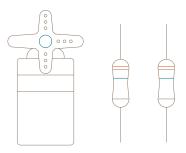
#### **BENEFITS**

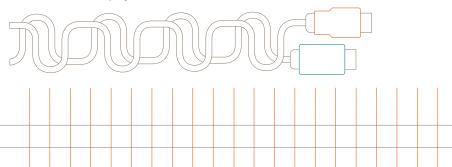
- Get students started quickly quickly and easily with the Internet of Things
- Make a complex subject simple and accessible
- Be an innovator, learn how to use technology to make an impact on society
- Build functional prototypes inspired by real-world applications
- Learn critical future skills for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

# CURRICULUM ALIGNMENT

The Internet of Things can be connected to multiple different subjects, whether you are teaching technology, biology, business or gardening, your students can benefit from adding aspects of IoT as part of their projects.

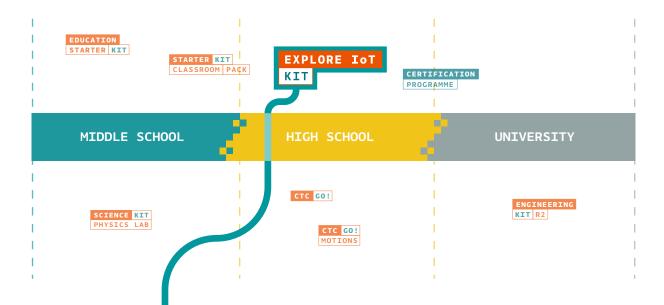
In the *Teacher guide* you can find information about different activities, learning objectives, materials needed and extra tips, collected into one place to support educators.





# ARDUINO® EDUCATION 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 **through middle school**, **high school**, **and university**, preparing them for a successful future.





Step by step, we champion students as they progress through their STEAM education with projects that increase in complexity to challenge them as they develop their skills.

We support students in achieving successful careers in STEAM-related fields with educational kits that are targeted to their age and ability. The technology is practical, creative, and fun. Students learn using the same products that companies around the world use in applications like rapid prototyping, AI, drone technology, and developing machine learning.

We are currently focused on translating our content into more languages and mapping it to more curricula. If you have a project that you would like to have localised for your country, please contact us with your suggestion.



