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ARDUINO

ARDUINO EXPLORE IOT KIT

Code: AKX00027

Barcode: explore-kit

The Internet of Things (IoT) is a giant network of connected devices that collect and share data from all over the world, and it's changing the way we live, work and study. Alongside this, we're also seeing the development of new career opportunities. By learning about IoT, students will have access to these new opportunities, and better scope for the future.

The Arduino Explore IoT Kit is a gateway to the digital world of connected objects and people and helps advanced high school and college students get started with the fundamental concepts of the Internet of Things quickly and easily, as it's based on open hardware and plug-and-play connections.

The kit includes ten online activities that adopt a learning-by-doing approach, through which students acquire knowledge step-by-step by constructing fully functional solutions, including experiments, challenges, and building meaningful applications. You can teach students to innovate, investigate, and explore with connected devices that use sensors, automation, protocols, and graphing to collect data they can analyze and learn from. For more information about all the online learning materials check out the content tab.

Students also learn to control objects remotely using a digital dashboard - the Arduino IoT Cloud. Through the IoT Cloud, students can gather,

manage and analyze data, understand how devices communicate with each other, and which tools to use to facilitate communication.

The Arduino Explore IoT Kit also includes a MKR IoT Carrier, which was specially developed for this kit. The MKR IoT Carrier is an extension of your MKR1010 board, and it's designed to help students and teachers focus more on prototyping ideas and programming, rather than on wiring and troubleshooting, by making it easier to build circuits using plug-and-play connections.

The kit includes:

Hardware:

- Arduino MKR1010
- MKR IoT Carrier designed for this kit, including:
  - Two 24 V relays
  - SD card holder
  - Five Tactile buttons
  - Plug and play connectors for different sensors
  - Temperature sensor
  - Humidity sensor
  - Pressure sensor
  - RGBC, Gesture and Proximity
  - IMU
  - RGB 1.20" display
  - 18650 Li-Ion rechargeable battery holder (battery not included)
  - Five RGB LEDs
- Plastic encasing
- Micro USB cable
- Moisture sensor
- PIR sensor
- Plug-and-play cables for all the sensors

Content

Access to an online platform including all the content, information, and activities you need to learn the basics of IoT in one place:

- 10 step-by-step hands-on activities, covering the fundamentals of IoT:
  Hardware
  Networking
  Algorithms and programming
  Security
  Data handling
- 10 open-ended challenges

Software

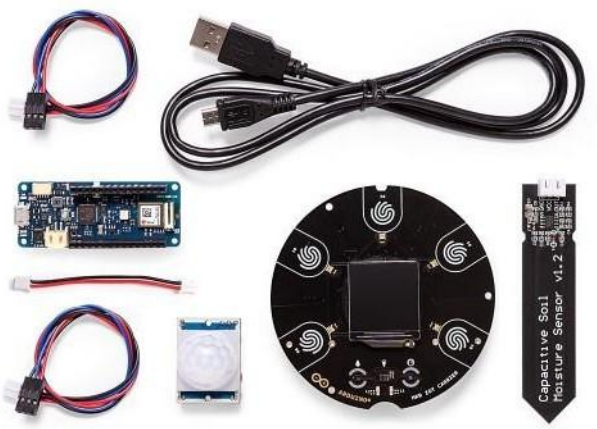
The Explore IoT Kit includes a 12 months free trial to the Arduino Create Maker Plan. Once the trial expires you will need to renew the subscription to the maker plan by going to this page. The Arduino Create Maker Plan included in the kit offers unlimited compilation time and extended access to some of the features of the Arduino IoT Cloud allowing teachers to run their classes with the certainty that they won't find any limitation on them. If you don't renew your Maker Plan subscription, you will be automatically downgraded to the Arduino Create Free Plan. This plan (Arduino Create Free Plan) offers lower compilation time per day, and limit the access to some of the features of the Arduino IoT Cloud, which means that only 3 out of the 10 activities of the kit can be completed with it.

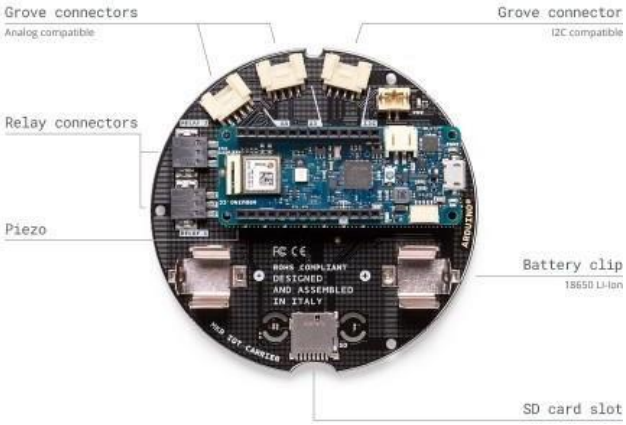
Get students started with creating connected devices- known as the Internet of Things (IoT). By following the step-by-step tutorials for ten different projects, they´ll learn how to build internet-connected objects and enhance their understanding of real-world technology.

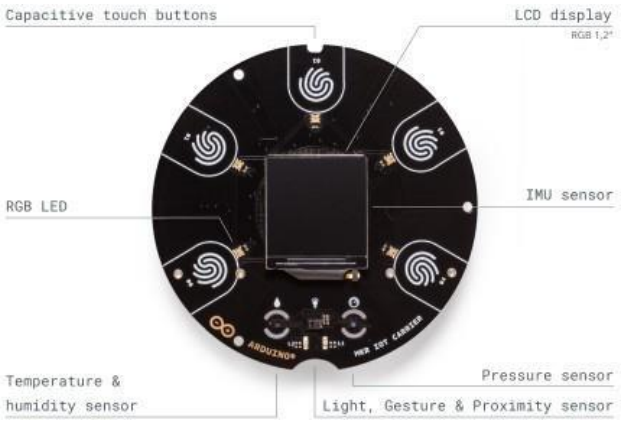
The students will learn how to build internet-connected objects by following the content with step-by-step tutorials for ten different activities - fun, creative experiments with real-life components. The activities in the kit teach students how to collect and present data (for example, building a weather station), how to use these devices and services safely and

securely (by creating a home security alarm), and they'll have more tools to design and make their own projects or tweak existing ones.

Visit a preview of the content at this link







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