



FAQ

GENERAL

How is the Arduino Engineering Kit course structured?

Arduino Engineering Kit course content is divided into six chapters and is designed to be followed sequentially from chapters 1 to 3, which should be used as a reference when needed. Chapters 4, 5 and 6 are projects. They can be done in any order but it is recommended to start with chapter 4.

Which languages does the online platform support?

The Arduino Engineering online platform is currently available in English and Spanish. More languages will be added soon!

What engineering concepts are covered?

The kit covers an introduction to:

- Mechatronics: DC motors, servos, encoders, motor drivers, PWM signals etc
- Model based design
- Control theory
- Image and signal processing
- Data visualization and analysis
- Applied physics and mathematics
- Text based programming with MATLAB
- Visual programming with Simulink.

Where is the registration code for my kit?

You'll find your registration code inside the box.

How do I access the Arduino Engineering Kit course?

You can access the course content <u>here</u>. Please note that you need an Arduino account to access the course.

What are the differences between Arduino Engineering Kit Rev1 and Rev2?

The main differences are that the Rev2 kit features:

- Optimized compact hardware design with the new professional Arduino Nano 33 IoT
- Improved battery management with the custom Nano Motor Carrier Board
- Improved box and kitting for better classroom management and cargo safety
- Enhanced robot performance with new Simulink models
- Reduced assembly time and improved overall performance with better mechanical structure designs
- Content is upgraded and available on a new online platform for better user experience
- Upgraded MATLAB and Simulink to 2020A version

I have an Arduino Engineering Kit Rev1. Can I update it to Rev2?

Since the hardware is different in Rev2 it also has a different online platform with updated content. To get the new hardware and access to the updated online platform you need to purchase the Rev2. However, you can also choose to continue using your Rev1 and its online platform.

What operating system is required?

The Arduino Engineering Kit R2 requires one of the following operating systems:

Windows:

- Windows 7 Service Pack 1
- Windows 10 (version 1803 or higher)
- Windows Server 2019
- Windows Server 2016

Mac:

- macOS Big Sur (11)
- macOS Catalina (10.15)
- macOS Mojave (10.14)

Note: macOS High Sierra (10.13) is no longer supported

On macOS Mojave, version 10.14.6 is recommended.

Linux:

- Ubuntu 20.04 LTS
- Ubuntu 18.04 LTS
- Ubuntu 16.04 LTS
- Debian 10
- Debian 9
- Red Hat Enterprise Linux 8
- Red Hat Enterprise Linux 7 (minimum 7.5)
- SUSE Linux Enterprise Desktop 12 (minimum SP2)
- SUSE Linux Enterprise Desktop 15
- SUSE Linux Enterprise Server 12 (minimum SP2)
- SUSE Linux Enterprise Server 15

Note:

Red Hat Enterprise Linux 6 is no longer supported. Support for Debian 9 will be discontinued in an upcoming release.

For more information, please check the following link: https://se.mathworks.com/support/requirements/matlab-system-requirements.html). https://se.mathworks.com/support/requirements/matlab-system-requirements.html). https://se.mathworks.com/support/requirements/matlab-system-requirements.html).

Can I get replacement parts?

Yes, you can purchase the Engineering Kit Motors Backup and the USB Cable type A male to micro type be male, as replacement parts for the Arduino Engineering Kit R2

Are any additional physical components required?

The Arduino Engineering Kit Rev2 includes all the mechanical and electrical components you need, including learning materials and software, to build three projects. There's online step-by-step guidance, so it's ideal for students working in small groups or for facilitating remote learning.

In addition to these, you may also need:

- Philips screwdriver (#1 recommended)
- Flat head screwdriver (2.5mm recommended)
- Scissors
- Tape
- Pliers
- Whiteboard

Is this kit suitable for distance learning?

Yes, the new kit allows for individual use and on site use. Students can have access to the MathWorks tools either via their campus license or the free trial version included in the kit. The online educational platform and content can be accessed from wherever the students are as long as they have internet connection. The kit also includes all the hardware the students will need for the lessons and projects.

CLASSROOM SETUP

What are the minimum requirements for using the Arduino Engineering Kit in the classroom?

The kit comes with all the required components you need to get started. The only other things you need are a computer with a MATLAB-compatible operating system, a white board for the Drawing Robot project, a small screwdriver and a stable WiFi connection.

Is there an evaluation system for students on the online learning platform?

The Arduino Engineering Kit doesn't have its own evaluation system. A professor can evaluate their class in the way they consider most appropriate.

How many students can use the kit?

The kit includes all the components required to assemble one project at a time. The projects can be done individually or in teams with no more than three students. For best learning experience we recommend students to work in pairs on one project.

ACCESS TO THE ONLINE PLATFORM

How do I share access to my online courses with other people?

You can share access to your online courses with any number of people using the classroom system. After registering a kit, go to <u>classroom.arduino.cc</u> and **set up a classroom**. Once your classroom is set up, you can invite other educators and students to join you. Everyone who joins your classroom will immediately get access to any online courses associated with it.

EDUCATOR & STUDENT ENROLLMENT

I forgot my Arduino account password, how can I recover it?

If you forgot your Arduino account password, you should click **"forgot password?"** during the <u>sign in</u> screen to reset it.

How do I give other educators access to the online platform?

Go to <u>classroom.arduino.cc</u> and set up a classroom. Once your classroom is set up, you can go to the *Educators* tab to enroll any number of educators. All the educators you invite will immediately get educator access to online courses associated with your classroom, with teacher tips, logbooks, etc.

What is the role of the admin vs. the teacher?

When enrolling educators into the CTC GO online platform, you can select whether they should have the *Admin* or the *Teacher* role. Both roles will have the educator version of the online content with teacher tips, workbooks, etc. Additionally, *Teachers* can invite and remove students, and invite other teachers to join the classroom. *Admins* can do everything a teacher can, plus invite other Admins, remove any educator, edit classroom settings, and disband the classroom. When you set up a new classroom, you automatically become its Admin.

How many educators can access the online platform?

Any number of educators can be enrolled onto the online platform using the classroom system.

Can I remove educators from my classroom?

If you are the admin of the classroom, you can add and remove educators.

I have invited an educator but they didn't receive the invitation. What should I do?

Firstly, ask them to check their spam folder. If the invitation is not there, remove them from the classroom list and invite them again. If their invitation still doesn't arrive, ask them to go to <u>classroom.arduino.cc</u>, where they should be able to see your classroom and its associated courses.

How do I give my students access to the online platform?

Go to <u>classroom.arduino.cc</u> and set up a classroom. Once your classroom is set up, go to the *Students* tab to enroll any number of students. All students you invite will immediately get student access to online courses associated with your classroom.

Can I remove students?

Any educator can remove students any time by navigating to the *Students* tab in your classroom. Click on the three dots next to the student's name and select Remove. When you remove a student, they will immediately lose access to online courses associated with your classroom.

My students can't access their email or don't have an email address. How do I invite them?

If your students can't access their email, you can share a classroom code with them. Direct them to <u>classroom.arduino.cc</u> and ask them to **join a classroom** using the code. You can find your classroom code by clicking on the **Invite** button in the *Students* tab.

If your students are under the age of 14 and don't have an email address, they should still be able to create an anonymous *Junior account*, using their parent's email address.

How many students can access the online platform?

Any number of students can be enrolled onto access the online platform using the classroom system.

I have invited a student but they didn't receive the invitation. What should I do?

Firstly, ask them to check their spam folder. If the invitation is not there, remove them from the classroom list and invite them again. If their invitation still doesn't arrive, ask them to go to <u>classroom.arduino.cc</u>, where they should be able to see your classroom and its associated courses.

When can I enroll students to the platform?

You can enroll students at any time.

MATLAB AND SIMULINK LICENSE OPTIONS

Are MATLAB and Simulink included or do I have to pay extra?

One Arduino Engineering Kit includes a one-year free trial license of MATLAB, Simulink and other add-on products for **one individual**. This license is for educational use only, not for government, research, commercial, or other organizational use.

What if the included license is not sufficient? Suppose several individuals who will be sharing a kit need access for longer than one year. What should we do to get more licenses?

MathWorks has various options for supplementing the included license. They will assist you in determining what is appropriate for your situation. Please visit https://www.mathworks.com/company/aboutus/contact_us/arduino_engineering_kit.html to learn more.

If I have an existing MATLAB license, can I use that?

Yes, but you must use R2020a or later and have access to the following products:

- MATLAB
- Simulink
- Control System ToolboxTM
- Curve Fitting ToolboxTM
- DSP System ToolboxTM
- Image Processing ToolboxTM
- Instrument Control ToolboxTM
- Optimization ToolboxTM
- Signal Processing ToolboxTM
- Symbolic Math ToolboxTM
- Stateflow[®]
- SimscapeTM,
- and Simscape Multibody TM.

If your school has a <u>Campus-Wide License</u> or <u>MATLAB Primary and Secondary School Suite</u> all students and faculty already have unlimited access to MATLAB and Simulink products including the add-ons needed for the Arduino Engineering Kit projects.

If you don't have access to a school license, <u>MATLAB and Simulink Student Suite</u> includes all the products used in the kit except Stateflow, which can be purchased for a small additional charge (USD 10.00). If you're not a student, <u>MATLAB Home</u> can be used.

My MathWorks and Simulink license has expired, how do I renew it?

The Arduino Engineering Kit includes a one-year individual license for MATLAB and Simulink for free. If you wish to continue using MATLAB/Simulink after the trial period, you can purchase a new license by following the link below:

https://se.mathworks.com/store

How can a professor extend their MathWorks license?

A professor or institution can purchase a new MathWorks license <u>from MathWorks</u>.

Can I transfer the code for accessing the learning material and the MATLAB/SIMULINK trial to another person?

The code for the MathWorks trial license and access to the online platform are **NOT** transferable.

SUPPORT

A component is not working, what should I do?

First, test the component using the sketches in the third chapter of the course content and try to control them.

If the issue still exists, please contact Arduino Support at https://www.arduino.cc/en/contact-us/