Battery Fundamentals eLearning Program
Get the best education quickly from trusted experts

eLearning Overview
Enhance your Keysight test solution’s success with this complete and focused set of eLearning modules you can take at your own pace.

What you will learn
The interactive eLearning program provides basic battery information as it relates to automotive drive technology, including measurement and test. You will also learn about the Energy Storage Discover (ESD) software and its functions.

Who should take this course?
The learning content is for beginners with basic knowledge as well as advanced learners who want to refresh their battery test and measurement skills. The training content prepares engineers and technicians as they use the ESD software in test and measurement systems.

Delivery method
Self-paced eLearning modules developed by Keysight experts.

Program package (T6501A-206)
The Battery Fundamentals course is offered in English and can be ordered using the T6501A-206 product number.
## Battery fundamentals

**Course duration:** 1 hour

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| **Battery Basics - Part 1** | **Learn how batteries, including lithium-ion technology, work, how propulsion in automotive applications use them, and what you should consider when handling them.**  
This e-learning course is great for use as a refresher for basic battery tests and measurements. The interactive module uses different battery types in practical automotive applications using common formulas.  
The course includes three chapters: basic knowledge, lithium-ion, and safety, each followed by a knowledge test to ensure key takeaways. |

| **Battery Basics - Part 2** | **Enhance your battery knowledge by learning about Electrochemical Impedance Spectroscopy (EIS) and Pulse Tests.**  
The course includes three chapters beginning with a battery discharge curve. Chapter two covers Electrochemical Impedance Spectroscopy (EIS), followed by the Impulse Current Charging test in chapter 3. The course concludes with a knowledge test with questions from all three chapters. |
ESD (Energy Storage Discovery) How-to-Videos

Course duration: 1.5 hours

The series of 30 videos, with a total running time of 1 hour and 28 minutes, provides an introduction and demonstrations of individual ESD software functions. Additionally, the video series includes 4 practical exercises.

The Learning Management System (LMS) page hosts the videos and enables viewers to search for the specific video topics shown in the below table.

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<tr>
<td>Intro-Video</td>
<td>Overview of the content and structure of the battery fundamentals video series</td>
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<tr>
<td>How-to videos “Safety”</td>
<td>Safety functions and settings, such as limits</td>
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<tr>
<td>How-to videos “Editor”</td>
<td>Working with the ESD software editor</td>
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<td>How-to videos “Toolbar”</td>
<td>The functionality of the ESD toolbar</td>
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<tr>
<td>How-to videos with practical exercises</td>
<td>Practical exercises where programming libraries and subroutines are a part of function creations.</td>
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Next Step

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