Arduino IT1 (Set)

Microcontrollers are an integral part of many areas of our daily lives. They are used in everyday devices such as temperature controllers, alarm systems, toys and even in the smart home sector.

In the Science Lab Arduino, students have the opportunity to explore the fascinating world of technology in a playful way, step by step, and learn how programming and electronics interact.

It is therefore possible to write programs that handle real tasks, such as controlling lighting, motors or sensors.

SCOPE OF DELIVERY

Count	Name	Count	Name
4	Arduino UNO R3 micro controller	1	Ultrasonic sensor HC-SR04 (set of 4)
1	OLED - 0.96" display VGSS, I2C (set of 4)	1	Traffic light module 5 V (set of 4)
1	Temperature sensor LM35 (set of 4)	1	Passive buzzer KY-006 (set of 4)
1	Button with XH2.54 3P socket (set of 4)	1	Battery clip 9 V with DC plug (set of 4)
1	Rotary Encoder CJMCU-111 (set of 4)	1	LDR 10 K photoresistor (set of 4)
1	Stepper motor 28BYJ-48 (set of 4)	1	Breadboard cable f/f 20 cm 40 pcs (set of 4)
1	3x4 keypad (set of 4)	1	Breadboard cable m/f 20 cm 40 pcs (set of 4)
1	Sensor shield V 5.0 (set of 4)	**207 161**	**Science Lab Arduino IT1 (Set)**

Set-up material for 4 students in pre-formed tray.

LP8.1.4.2 The simple traffic light circuit

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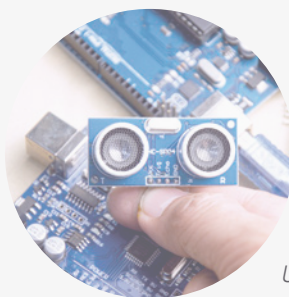
Ultrasonic sensor HC-SR04
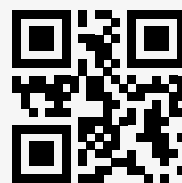
ADDITIONALLY REQUIRED TO PERFORM ALL EXPERIMENTS

Additionally required per class

Count	Cat.-No.	Name
1	520 718	LIT-digital: LP8 Science Lab Projects Arduino

Additionally required per student

Count	Cat.-No.	Name
1	685 45	Battery 9 V (block)

Further information about the Arduino set can be found on the back page.

HIGHLIGHT EXPERIMENT

LP8.1.3.1 The temperature calculator

In this experiment, students will work with variables and operators to program a digital thermo-meter to output temperatures in different temperature scales on the serial monitor.

OVERVIEW OF TOPICS AND REQUIRED SETS

ARDUINO IT1

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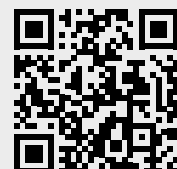| EXPERIMENT TOPICS	
LP8.1.1	INTRODUCTION TO MICROCONTROLLER PROGRAMMING
LP8.1.2	DATA TYPES
LP8.1.3	VARIABLES AND OPERATORS
LP8.1.4	ERROR ANALYSIS
LP8.1.5	CONTROL STRUCTURES
LP8.1.6	SMALLER PROJECTS

14 EXPERIMENTS

ADVANTAGES AT A GLANCE

- Equipment set with materials in 4-fold version
- 14 experiments in total
- Step-by-step introduction to microcontroller programming
- Everyday examples to prepare for larger projects
- Little preparation necessary for teacher/lecturer

Would you like more information or order directly?

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https://www.leybold-shop.com/207161