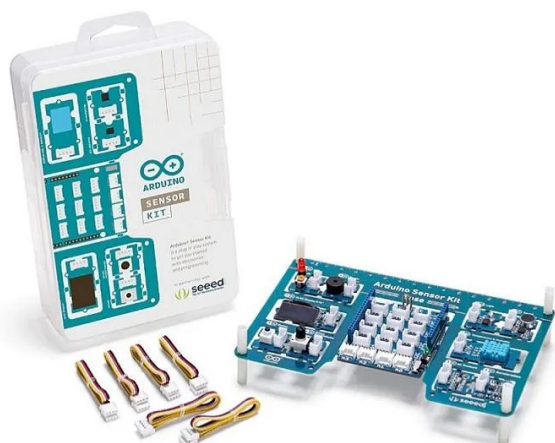**Item no.:** 353141
TPX00031 - Sensor Kit Base for Grove Modules

from **33,89 EUR**

Item no.: 353141
shipping weight: 0.10 kg
Manufacturer: Arduino

📄 Product Description

Arduino Sensor Kit Base for Grove Modules

The Arduino Sensor Kit is made for Makers who have just started using Arduino to explore the vast space of electronics and programming. This kit teaches how to connect and program basic Grove modules that includes both sensors and actuators.

Grove is an open-source, modulated, and ready-to-use toolset and takes a building block approach to assemble electronics. This kit includes a Base shield to which the various Grove modules can be connected both individually, or together in various combinations to create fun and exciting projects. All of the modules use a Grove connector, which connects each of the components to a Base shield in just a few seconds. The Base shield can then be mounted on to an Arduino UNO board and can be programmed using the Arduino IDE. Instructions for connecting and programming the different modules are also included in this kit.

This kit was elaborated in collaboration with Seeed Studio and provides the Arduino community with the opportunity to build projects with minimal effort of both wiring and coding. This kit acts as a bridge to the world of Grove and provides a flexible way for Makers to extend their projects to include other complex Grove modules.

The kit includes access to an online platform with all the instructions required to plug, sketch and play with the different Grove modules.

Hardware

1x Base shield that is designed to fit on top of an Arduino Uno board. It comes equipped with 16 Grove connectors, which, when placed on top of the Uno, provides functionality to various pins. It includes:

- 7x digital connections
- 4x analog connections
- 4x I2C connections
- 1x UART connection

10x Grove modules included can be connected to the Base shield, either through the digital, analog or I2C connectors on the shield. Let's take a quick look at them:

- The LED - simple LED that can be turned ON or OFF, or dimmed.
- The button - pushbutton that can either be in a HIGH or LOW state.
- The potentiometer - a variable resistor that increases or decreases resistance when turning its knob.
- The buzzer - a piezo speaker that is used to produce binary sounds.
- The light sensor - a photoresistor that reads light intensity.
- The sound sensor - a tiny microphone that measures sound vibrations.
- The air pressure sensor - reads air pressure, using I2C protocol.
- The temperature sensor - reads temperature and humidity at the same time.
- The accelerometer - a sensor used for orientation, used for detecting movement.
- The OLED screen - a screen that values or messages can be printed to.

6x Grove cables allows you to easily connect the modules to the Base shield without any soldering required.

Software

The Arduino Sensor Kit Library is a wrapper for that contains links to other libraries related to certain modules such as the accelerometer, air pressure sensor, temperature sensor and the OLED display. This library provides easy-to-use apis that will help you build a clear mental model of the concepts you will be using.

Learning materials

Access to an online platform with all the instructions required to plug, sketch and play with the different Grove modules. There are 10 lessons and they are:

- 01 The LED
- 02 The Button
- 03 The Potentiometer
- 04 The Buzzer
- 05 The Light Sensor
- 06 The Sound Sensor
- 07 The Air Pressure Sensor
- 08 The Temperature Sensor
- 09 The Movement Sensor
- 10 The OLED Screen

📄 Specifications

Scan this QR code to view the product
All details, up-to-date prices and availability