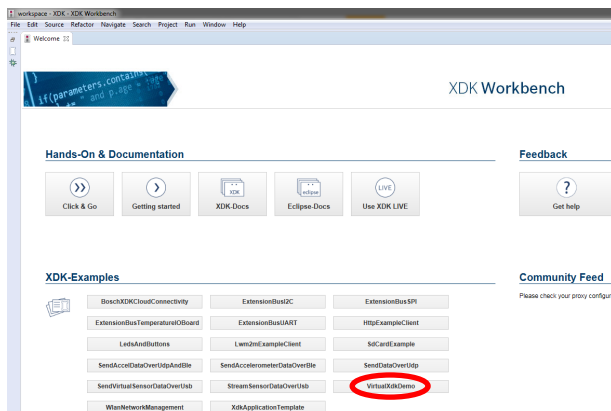


Virtual XDK Quick Guide

Document revision	1.0
Document release date	2017.12.08
Virtual XDK version	Android: 3.3 iOS: 3.0
Notes	Data in this document is subject to change without notice. Product photos and pictures are for illustration purpose only and may differ from the real product's appearance.

The Virtual XDK App visualizes sensor data collected by the XDK and presents them on a mobile device, e.g. a smartphone or tablet. This app can be used for presentation and demo purposes, as well as to explain use-cases and features of this specific universal IoT sensor device.

In advance install the workbench on a PC (see “3. General Information Guide XDK110” at www.xdk.io, Learning). Use the workbench to flash the right firmware (see highlighted below) on the XDK.

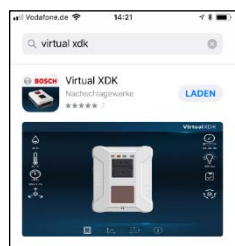


Structure of the quick guide:

- A. Installation of the Virtual XDK App and connection with the XDK device
- B. Operation of the Virtual XDK App
- C. Document History and Modification

A. Installation of the Virtual XDK App and connection with the XDK device

1. Use the Play Store on Android, or the App Store on iOS devices to search for the “Virtual XDK” app.



2. Install the Virtual XDK App on your smartphone.
3. Make sure Bluetooth is activated on your smartphone and enable it if necessary.

- Next turn on the XDK, by moving the switch in the direction of the USB connection (see red arrow). The LED highlighted in the picture below, will light up for one second as the XDK starts up.



- Open the Virtual XDK App on your smartphone.
- One or more XDK Bluetooth connection(s) will be offered in the App (see highlighted area in the picture below). Select the XDK you want to connect to by tapping on it.
Tip: If there are multiple XDKs in the vicinity, you can identify yours by turning it off and on again. The last XDK found by the app is shown at the bottom of the list.



- Once the app has established a connection with the XDK device, the virtual XDK on the screen will change its opacity as depicted below.
- You may have to align/calibrate your XDK with what is shown on the screen. To do so, place the XDK device on a level surface and press the button (on the device) marked with one dot.



B. Operation of the Virtual XDK App

Explanation of the symbols



- Virtual XDK (3D model)**
The Virtual XDK mirrors the orientation the physical device.
- Graph**
Choose the graph icon in the app to show any sensor value in a curve diagram.
- Settings**
You can use the settings for example to scan for other devices or to change the refresh rate.

- **About**
The about contains the imprint and the legal information.
- **Memory card**
Shows the status of the XDK's SD Card slot. If a memory card is present, this icon is shown at full opacity.
- **Sensor-Icon Bars**
The sensor icons enable the or disable the display of a particular sensor value. Tap on any of the sensor icons to enable/disable this particular sensor.
Specifically:
 - **Humidity**
The ambient humidity measured by the XDK can be influenced (e.g. for demo purposes) by gently blowing into the two holes above the clear window on the XDK device. Beware that humidity sensor data is only shown in the graph display, not the Virtual XDK (3D model).
 - **Temperature**
The temperature can be influenced by for example holding the XDK in your hand. Much like humidity, changes are only visible in the graph display.
 - **Pressure**
The barometric pressure sensor can be influenced by height change, e.g. if you place the XDK on the floor after it was on a table. Changes are only visible in the graph display.
 - **Acceleration**
The three axis accelerometer measures the acceleration in all three directions in space. The influence of the gravity on the different axis can be shown by tipping over the XDK which is laying on a table from one side to another. In the app the changes are shown in the graph display and in the 3D view.
 - **Magnetic field**
To influence the magnetic field strength measured by the XDK, turn the XDK in any direction while the XDK is placed on a table white side facing up. Beware that Virtual XDK only displays one axis of the three-axis magnetic sensor built into the XDK.
 - **Illuminance**
The light sensor can be influenced by covering the transparent window of the XDK device with your hand. The sensor values are shown in the graph display and in the 3D view.
 - **Extension**
If an extension board is connected to the XDK, the Virtual XDK app will show its status here.
 - **Angular Rotation Rate**
The gyroscope is influenced by rotations of the XDK. Such influence can be exerted by for example, by rotating the XDK by hand. Changes are shown in the graph display as well as the 3D view.

C. Document History and Modification

Rev. No.	Chapter	Description of modification/Changes	Editor	Date
1.0		Version 1.0 initial release	CSS	2017-12-08