HAPTICORE
by **XEELTECH**

EVAL KIT
HAPTICORE 14-P001X1

10.03.2023

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HAPTICORE 14-P001X1

REINVENTING USER EXPERIENCE

With HAPTICORE we make user experiences truly immersive and intuitive. Our game-changing HAPTICORE encoder unites all the benefits of a mechanical rotary with a freely programmable haptic device.

HAPTICORE generates real, mechanical haptic feedback for intuitive human-machine interfaces (HMI) control. Our patented MR (magnetorheological) technology provides revolutionary haptic control interactions with real-time feedback, only with the use of software: intuitive, accurate, fast, and personalized!

JOIN THE HAPTIC REVOLUTION

The **Eval Kit HAPTICORE 14-P001X1** is your entrance into the world of adaptive haptic technologies by XeelTech. Designed to evaluate the performance of our HAPTICORE technology, both within our test environment and your prototype.

For an easy start, you can use the **HAPTICORE Xperience** application, our plug-and-play test software with a preselection of haptic feedback patterns. Once you gain your first experience, you can remove the HAPTICORE from its stand, mount it in your prototype, and use the **Customer Test App**, to create tailored haptic feedback patterns for every interaction with your HMI.

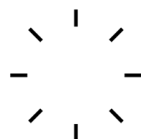**Explore unlimited haptic patterns – it is only a matter of software**

With our fully programmable technology, any haptic feedback pattern can be created for a more intuitive and tailored user experience. The number and strength of ticks per rotation as well as the rotation angles and rotation resistance can be customized and combined to your needs. But the HAPTICORE can not only adapt its haptic feedback pattern. Also, the feel of every haptic sensation can be adjusted via software. Here are only a few examples of haptic feedback patterns:

Fine Tick	Medium Tick	Rough Tick	Lock	Interstage

Barrier	Barrier ticks	Rough Tick	Contrasting directional feedback	Speed adaptive feedback

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Scope of delivery

Hardware

HAPTICORE 14-P001X1

Mounted cover (removable)

Socket and cradle (HAPTICORE 14-P001X1 pre-mounted but removable)

HAPTICORE connection cable

Flex cable

Adapter PCBA HAPTICORE 14

Does **NOT** include HAPTICORE Control Unit Pro (required to operate Eval Kits)

Software

HAPTICORE Xperience (Quick Start Demo Software)

HAPTICORE Customer Test App (for advanced testing and prototyping)

Documentations

Quickstart Guide

HAPTICORE Haptic Functions Documentation

HAPTICORE Firmware Update Guide

HAPTICORE .NET Library Documentation

HAPTICORE Serial Communication Protocol Documentation

Libraries

HAPTICORE .NET Library

Find the complete software package at www.xeeltech.com/downloads

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HAPTICORE Software Solutions

The HAPTICORE Eval Kit includes the use of our HAPTICORE software solutions. The software includes the HAPTICORE Xperience, the Customer Test App as well as the Haptics Generator, which help you experience our technology and design your own haptic feedback patterns.

Of course, we will provide you with everything you need to know to build your own haptic modes from documentation and video tutorials to personal assistance via our team of integration engineers.

XHAPTICORE XPERIENCE

› Plug & Play application for all HAPTICORE encoders

› Discover the freely programmable haptic feedback

› Present HAPTICORE to your colleagues & customers
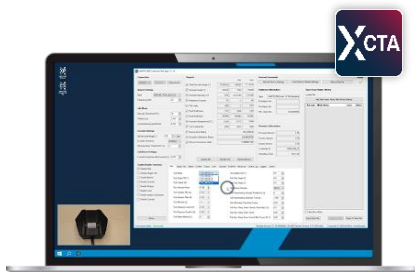
XHAPTICORE CUSTOMER TEST APP

› Modify all parameters within a single application

› Live access to all sensor data and data log

› Import, save and export your haptic feedback modes

XHAPTICORE HAPTICS GENERATOR

› Graphical visualization for easy modeling

› Customize and fine-tune individual haptic sensations

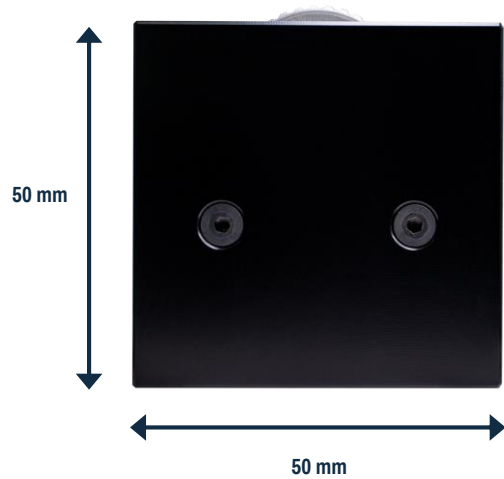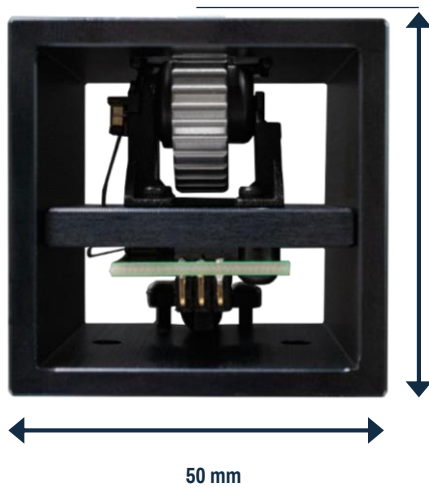› Adjust the forward and backward rotation behavior

Documentation & tutorials

With the software bundle, you get access to extensive documentation that will help you become an expert haptic designer in no time. In addition, a series of video tutorials are included to help you quickly master your HAPTICORE Eval Kit.

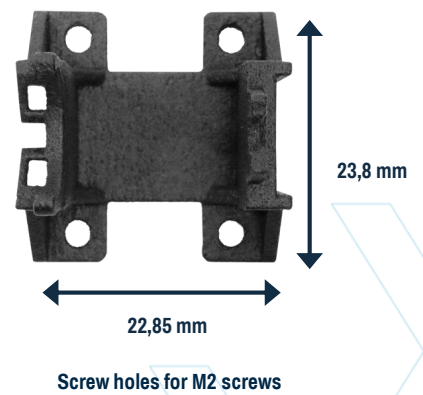Visit www.xeeltech.com/support to learn more.

XeelTech GmbH / Austrian Business Register: FN 522245 h
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Dimensions

Eval Kit HAPTICORE 14-P001X1

54 mm

50 mm

50 mm

50 mm

8 mm

Scroll wheel diameter: 25 mm

23,8 mm

22,85 mm

Screw holes for M2 screws
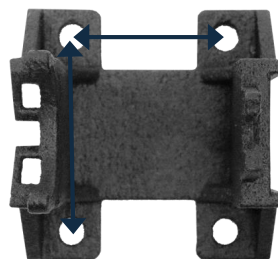
Mounting info

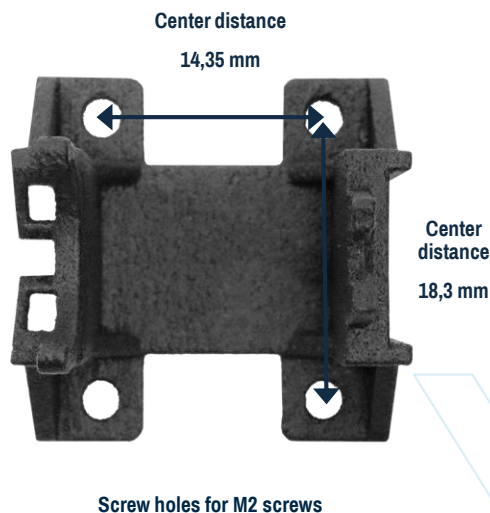The Eval Kit HAPTICORE 14 P001X1 comes in a pre-assembled test kit. The HAPTICORE 14 can easily be removed from its housing. This way you can install the HAPTICORE 14 in your prototype or test it separately. To remove the HAPTICORE 14 from the housing, follow these steps

1. Unplug the HAPTICORE connection cable from the Adapter PCBA (the cable does not need to be removed from cable strain relief yet

2. Remove the plastic cover around the scroll wheel by lightly pushing with a screwdriver from underneath

3. Unscrew the four screws on the sides of the eval kit

4. Pull out the mounting plate with the scroll wheel through the side without the cable strain relief

5. Detach the flex cable from the PCBA

6. Unscrew the screws attaching the cradle to the baseplate

Please only use the included cradle to mount the HAPTICORE 14

Cradle screw points

Center distance
14,35 mm

Center distance
18,3 mm

Screw holes for M2 screws

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Product data & system configuration

HAPTICORE 14-P001X1

This Eval Kit is equipped with the HAPTICORE 14-P001X1. To learn more about our smallest HAPTICORE rotary encoder and its technical specifications and performance data visit the HAPTICORE 14-P001X1 product page.

Note: The fastening latches of the HAPTICORE 14-P001X1 have been removed to mount the included cover.
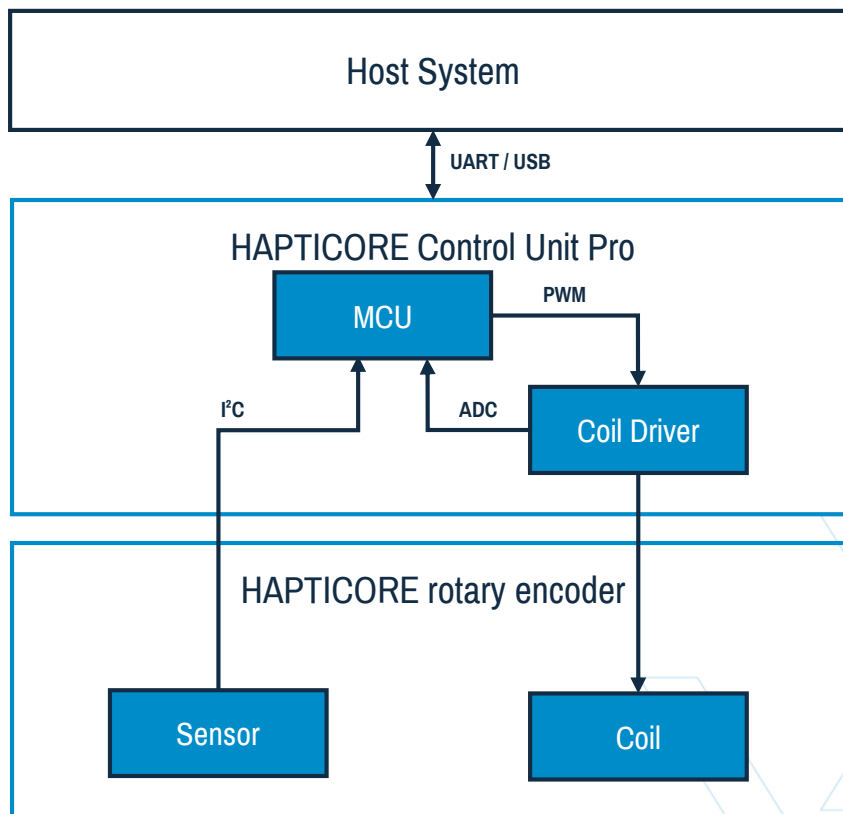
Learn more

System configuration

HAPTICORE Eval Kits are your entry to our world of programmable haptic feedback and to help you build your first prototype. To make this process as easy as possible the Eval Kits are designed to work with the HAPTICORE Control Unit to let you connect your Eval Kit to your computer as well as integrate them into your prototype.
The diagram below shows the system configuration and communication setup for your Eval Kit.
Please note that the HAPTICORE Control Unit Pro will not be required for the integration into your serial product.

Host System

UART / USB

HAPTICORE Control Unit Pro

MCU

PWM

I²C

ADC

Coil Driver

HAPTICORE rotary encoder

Sensor

Coil

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Contact XeelTech

If you need assistance, please don't hesitate to get in touch with us.

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Or visit our support section at www.xeeltech.com/support where you can find all of our HAPTICORE Software Solutions, helpful FAQs, and video tutorials.

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