



Dev. Kit Smart Knob HAPTICORE One incl. Touch-Display

21.03.2025

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The smart rotary haptic actuator with programmable haptic feedback

Discover the next generation in UI controls with XeelTech's all-new HAPTICORE products.

With our patented HAPTICORE technology, we set new standards for HMI design & operation and bring together the best of both the digital and mechanical worlds. Our HAPTICORE haptic feedback knobs generate mechanical haptic force feedback to ensure a simple, safe and intuitive operation of your human-machine interfaces (HMI).

Using our software solutions, it is possible to switch between various haptic feedback patterns in real-time. And thanks to different sizes and performance characteristics, our haptic input devices can be used in a wide range of applications. software: intuitive, accurate, fast, and personalized!



Integration blueprint HAPTICORE Smart Knob

The HAPTICORE smart knob is the perfect combination of our rotary haptic actuators and a touchscreen and brings together visual and tactile stimuli, making the interaction with your device simple, safe, and intuitive.

Our HAPTICORE smart knob is no standard off-the-shelf component, it's a tailored solution designed to enhance your product's user experience. Get in touch with us to design your unique smart knob with adaptive haptic feedback, perfectly tailored to your application needs and design preferences. Let's bring your vision to life – reach out today to kickstart your HMI transformation.

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

Join the haptic revolution with the HAPTICORE Xperience demonstration software. Test a variety of predefined haptic patterns and get a first impression of the capabilities of our rotary haptic actuator using the configurator and the integrated haptic design tool.

Key features:

 Plug & Play Get a quick overview of the capabilities of our smart rotary haptic actuators.	 Demonstration setup Present the main features of freely programmable haptics to your colleagues and customers.	 Customize function Create your own examples of haptic patterns using the customize function with easy-to-use sliders.	 Design function Test the basic functions of the Haptics Generator software by dragging and dropping the haptic curve to change the tactile feedback.
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For more details please see: <https://www.xeeltech.com/hapticore-software/>

Scope of delivery



Hardware

Dev. Kit Smart Knob HAPTICORE One

Mounted plastic cover

Plastic socket including HAPTICORE Control Unit Pro and HDMI Controller Board

USB-A to USB-C cable 2x

HDMI cable

12 V Power supply with interchangeable blades

Software

HAPTICORE Smart Knob Demonstration Software

System Requirements

Windows 7 or newer

.NET Framework 4.6 installed on Windows 7, 8, 8.1 (preinstalled on Windows 10)

Documentations

Quickstart Guide

HAPTICORE One

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

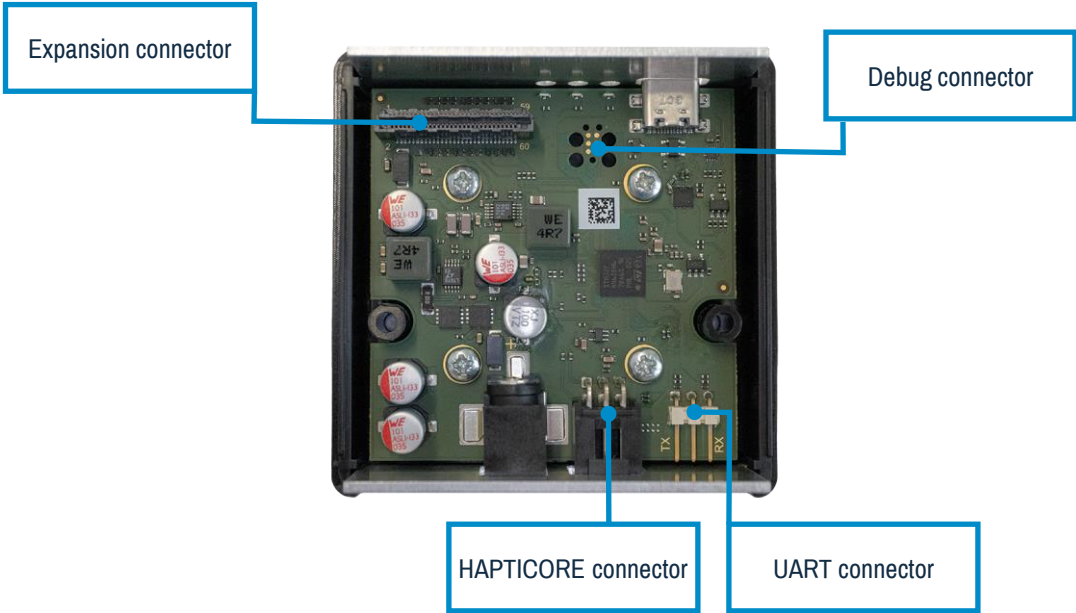
[Learn more](#)



Technical specifications

HAPTICORE Control Unit Pro

Dimensions PCBA	56.6 x 57.5 mm
Available Interfaces	UART / USB
Power supply	8 to 28 V (DC socket min. 1A)
Expansion connector	Yes

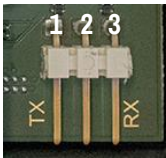


6-pin connector layout



Pin	Signal
1	Coil+
2	Coil-
3	+3V3
4	GND
5	SCL
6	SDA

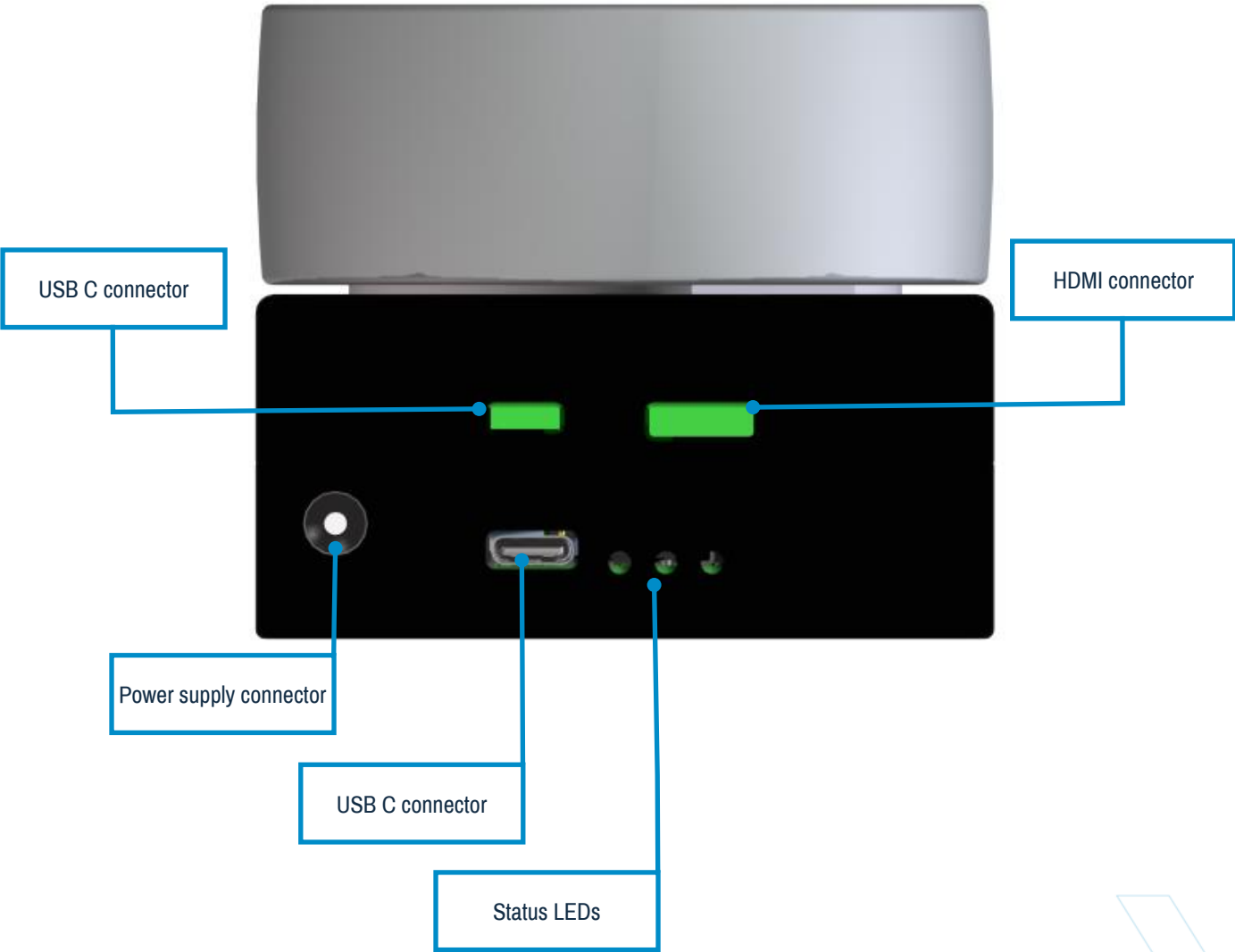
UART connector layout



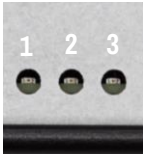
Pin	Signal
1	TX
2	GND
3	RX

Technical specifications

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Status LEDs



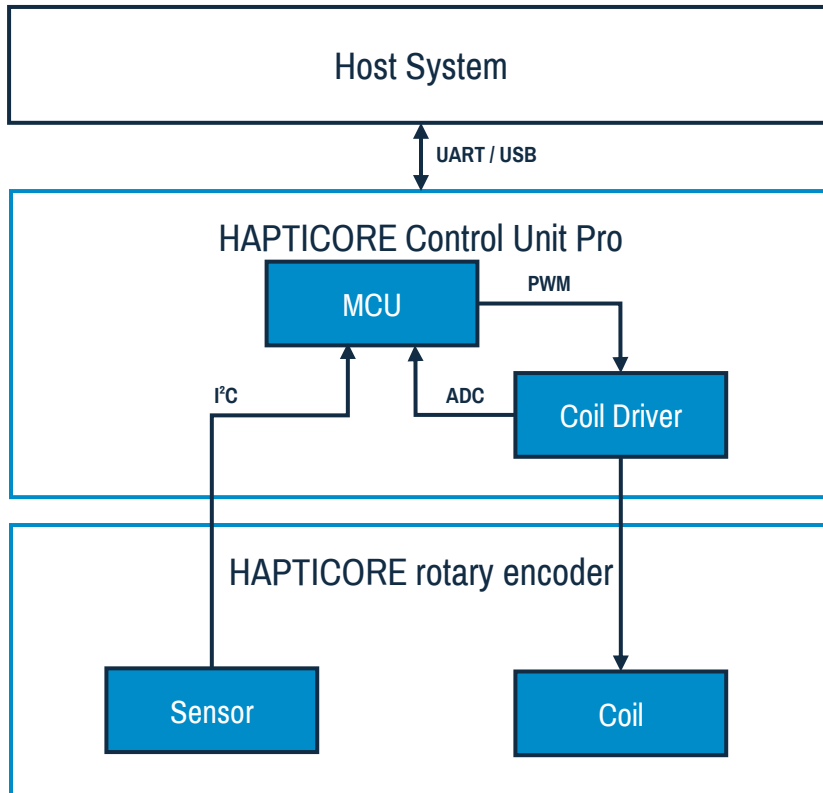
LED	Color	Status
1	Red	Error
2	Orange	Coil current
3	Green	Power

Blinking LEDs indicate an error. The report ID can be read out via the Customer Test App. For assistance with any errors reach out to our integration team.

System configuration

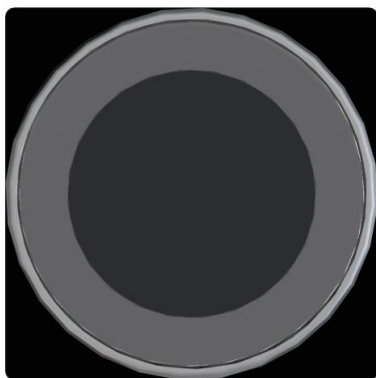
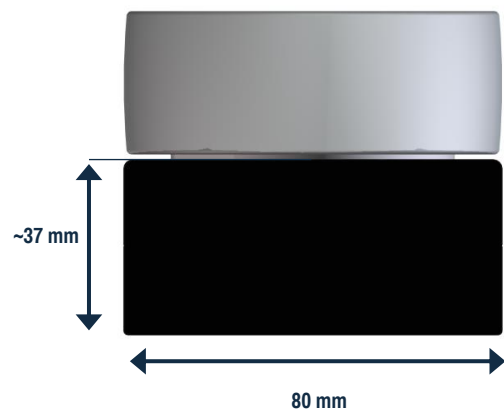
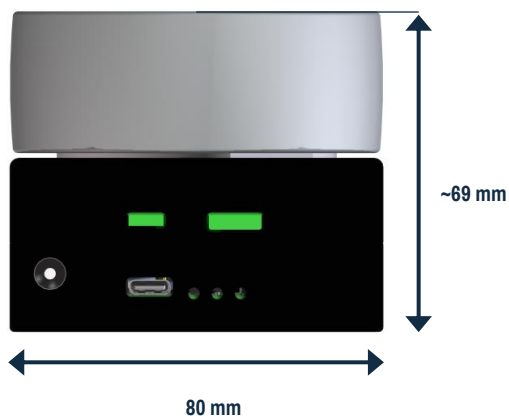
The diagram below shows the system and communication configuration of the HAPTICORE One with the HAPTICORE Control Unit Pro which are integrated in the development kit smart knob HAPTICORE One.

Please note that the HAPTICORE Control Unit Pro will not be required for the integration into your serial product.



Dimensions

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Smart knob diameter: ~ 80 mm



Smart knob mounted with 2x screw M3 x 8 mm to the case

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.