

Kinfinity Glove

Going further: New features for the Kinfinity Glove are continuously being added and tested at the Institute of Robotics and Mechatronics of the German Aerospace Center (DLR-RM).



Dexterous manipulation task in a full VR environment.

Technical Specification	
Degrees of freedom	>20
Size	Several standard size, possibility of customization
Databus	USB, Ethernet, Bluetooth, WiFi, RS422
Data rate	1kHz
Supply Voltage	Battery or USB

DLR at a glance

DLR is the national aeronautics and space research centre of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport and security is integrated into national and international cooperative ventures. In addition to its own research, as Germany's space agency, DLR has been given responsibility by the federal government for the planning and implementation of the German space programme. DLR is also the umbrella organisation for the nation's largest project management agency.

DLR has approximately 8000 employees at 20 locations in Germany: Cologne (headquarters), Augsburg, Berlin, Bonn, Braunschweig, Bremen, Bremerhaven, Dresden, Goettingen, Hamburg, Jena, Juelich, Lampoldshausen, Neustrelitz, Oberpfaffenhofen, Oldenburg, Stade, Stuttgart, Trauen, and Weilheim. DLR also has offices in Brussels, Paris, Tokyo and Washington D.C.

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Institute of Robotics and Mechatronics
Münchener Str. 20, 82234 Weßling

Contact:

Maximilian Maier
Email: Maximilian.Maier@dlr.de

Dr. Maxime Chalon
Email: Maxime.Chalon@dlr.de
Phone: +49 (0) 8153 28-2406

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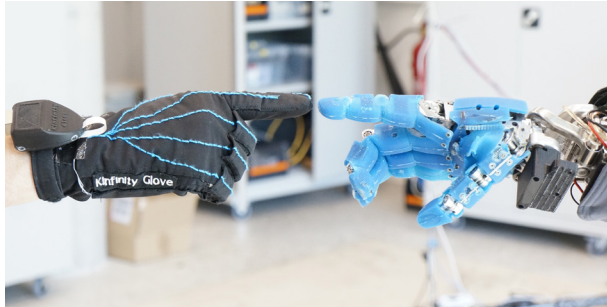
Kinfinity Glove

Input device for virtual reality and haptics

Kinfinity Glove

Description: The Kinfinity Glove is a new generation of multi-modal input device for use in virtual reality, robotics, gaming and many more.

The Kinfinity Glove takes your virtual experience to another level of dexterity and accuracy. It gives you the power to touch, to grasp and to perform any movements you wish - precisely and without need to learn new control methods.



The Kinfinity Glove used in wireless mode

You can use it to manipulate objects of any size in virtual reality, operate connected machines / robots, enhance and accelerate designing processes or to train challenging finger motions, e.g. during surgery or fabrication practice.

The smallest motions are reproduced into the visualisation software with no delay*¹. Thanks to its smart software, the user can adapt and can control each joint position no matter the size of your hand.

Capabilities: The Kinfinity Glove provides an accurate position of the fingers in realtime*².

Depending on your needs, you can switch seamlessly between wireless or wired solution*³.

Thanks to the user-friendly interface integrating a smart calibration tool, the system is ready to be used within minutes by a new user.

The high performance of the Kinfinity Glove is achieved via the combination of several patented sensor technologies.



¹ Users might experience higher delay in wireless mode.
² >1kHz
³ Bluetooth, Wifi, PoE, USB HID.

Heritage: The Kinfinity Glove has been developed in order to fulfill the requirements of high-end robotic applications at DLR. It is the result of several years of research on telemanipulation and virtual reality on several platforms in a wide field of experiments.

In particular the experience gathered with SpaceJustin and Dexhand served as a baseline for the Kinfinity Glove design.



Dexterous and accurate telemanipulation of the Spacehand

Robotic Application: The Kinfinity Glove is the perfect input device for robotic hand telemanipulation.



Accurate telemanipulation with the Kinfinity Glove on highly integrated Hand-Arm-System

