

Mid-air tactile effects for public installations

The Ultrahaptics STRATOS™ Inspire is a robust plug-and-play haptic module suitable for creating sophisticated mid-air tactile effects for interactive public installations and demonstrations. Designed for compliance with consumer regulations and for use in public spaces, STRATOS™ Inspire can be bolted onto existing display solutions or used to develop innovative new experiences.

STRATOS™ Inspire can create a wide variety of mid-air tactile effects within a 3D interaction zone over 65cm d x 55cm w x 55cm h (26" d x 22" w x 22" h).

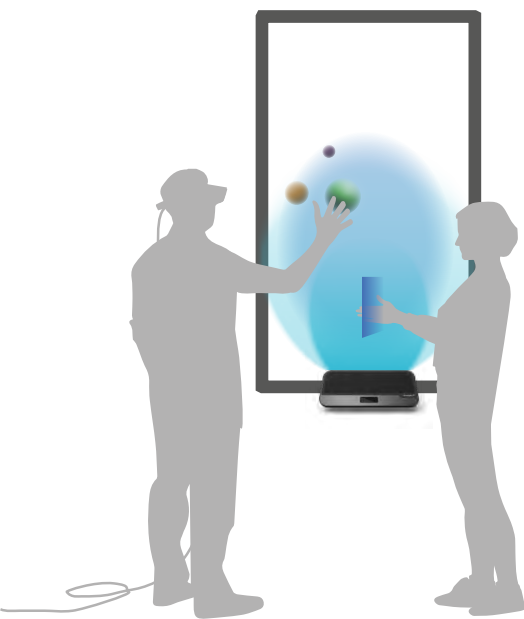
The simplest type of effect is a single pressure point measuring as little as 8.6mm in diameter. Up to 8 haptic pressure points can be created. With a 40kHz refresh rate, these pressure points are then moved very rapidly in 3D space to create a variety of haptic effects including:

- Classic interface controls such as buttons and sliders, as well as haptic pulses and alerts
- Immersive sensations such as textures, and presence for virtual objects, surfaces and shapes
- Magical sensations such as lightning, fireballs, ghosts, clouds, bubbles and force fields

Applications and benefits

STRATOS™ Inspire is particularly suitable for digital signage, event marketing, location-based entertainment and AR/VR applications. Studies show that mid-air haptics significantly improves a range of key metrics, including:

- **>100% increase in attention time.** 11.8 seconds versus industry average of 4.6 seconds for non-interactive digital signage.¹ In addition, adding mid-air haptics to a motion controlled interface resulted in an increase in interaction time of up to 50%.²
- **>80% preference.** Over 80% of study participants preferred the interactive experience with mid-air haptics. Captured through unprompted responses.²
- **>50 point increase in Net Promoter Score (NPS).** Adding mid-air haptics to a gesture-based interactive experience increased NPS from -42 to +14 points.²



Ideal interaction zone approx.
63cm d x 48cm h x 48cm w (25" d x 19" h x 19" w)
Maximum interaction zone approx.
70cm d x 56cm h x 56cm w (28" d x 22" h x 22" w)

Robust and safety compliant

The STRATOS™ Inspire kit is certified compliant to safety and electrical regulatory standards (CE, FCC, NRTL, PSE, RoHS, REACH). Its robustness and external certification enable commercial projects where customers can evaluate the business benefits of mid-air haptics in a public and realistic setting before going forward with customised designs and integration into product lines.



¹Audience analytics using Quividi software at Cinemacoin, March 2018.
²Results from Ultrahaptics user study, June 2018, User testing with 17 external users of different demographics using 4 different interactive poster experiences: Dead Static, Ready Player One, Beyond Terra, The Sotahara.

Easy to integrate and use


STRATOS™ Inspire is designed for simple integration into customer applications and can be retro-fitted to existing concepts or hardware. It also comes with a set of “out-of-the-box” sensations and demos that make it quick and easy to incorporate mid-air haptics into applications and demonstrate these internally and externally. These include:

- Demo suite, including UI controls demos
- Interactive marketing posters, including gamified experiences
- Magic spells demo, including lightning, fire and wind spells

A Unity plugin is also available, enabling developers working with one of the most widely adopted 3D development platforms to incorporate mid-air haptic sensations easily into their established workflow. For the evaluation of the Ultrahaptics STRATOS™ Inspire module we provide a Leap Motion® camera module. For commercial licensing you can adopt your own motion tracking solution.

Specifications

	Height	Width	Depth	Weight
Metric	188mm	430mm	54mm	3.1 kg
Imperial	17 ½”	17”	2 1/8”	7 lb

Product category:	Evaluation kits
Description:	STRATOS Inspire plug-and-play haptic module
Power supply:	24V DC  +/- 10%, 3.75A max.
Data connection:	USB Type C connector
Ingress protection:	IP4X, splashproof
Mounting methods:	VESA 100x100mm mount; desktop stand or wall mount. May be part-recessed into a cabinet.
Haptic interaction zone:	50-700mm / 2” to 27 ½” deep from front of array grille
Hand positioning device:	Leap Motion® camera module. NOTE: The Leap Motion® camera module is for evaluation use.
Ultrasound transducers:	256
Construction:	Die cast and machined aluminum, stainless steel
Ambient operating temperature:	0°C to +40°C / 32°F to 104°F
Compliance:	CE, FCC, NRTL, PSE, RoHS, REACH
Compatible operating systems:	Microsoft Windows (7, 8, 8.1 and 10), Apple MacOS (10.10 onwards), Ubuntu, Linux 16.04 LTS or later. NOTE: Most Ultrahaptics demos support only Microsoft Windows. Please check with Ultrahaptics if unsure.
Minimum system requirements:	Intel Core i3; AMD Phenom II with 2GB RAM and USB 2.0 port
Recommended system requirements:	Intel Core i5/i7 or AMD Ryzen with 4GB RAM, USB 2.0 and dedicated graphics processor

Where to buy it

Please contact Ultrahaptics for more information about pricing and the options available for public demonstration licenses and commercial rollouts.

Through our Agency Program Ultrahaptics can also introduce you to marketing and creative agencies that have experience working with mid-air haptics and can help conceive and deliver a haptic-enabled project or experience.

<https://www.ultrahaptics.com> | info@ultrahaptics.com

UK: +44 117 3259002 | US: +1 650 600 9916

Distributor (Japan): CORNES: ctl-comm@cornes.jp

About Ultrahaptics

Ultrahaptics’ breakthrough technology uses patented algorithms to control ultrasound waves, enabling us to create the sensation of touch in mid-air. No controllers or wearables are needed: the “virtual touch” technology uses ultrasonic speakers to project shapes, textures and effects directly onto the user’s hands.

We enable our customers to harness the extraordinary power of haptics, and expertly support them to deliver immersive, intuitive, innovative and often magical experiences across a range of sectors.