

Hand tracking and mid-air tactile effects for public installations

STRATOS Inspire is a robust plug-and-play haptic module suitable for creating sophisticated mid-air tactile effects for experiential marketing, digital out-of-home installations and location-based entertainment. 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 tracks users' hands using the world-leading Leap Motion Controller, and projects tactile effects onto them using ultrasound. This creates a 3D, tactile interaction zone over 63cm d x 48cm w x 48cm h (25" d x 19" w x 19" h).

The simplest type of effect is a single pressure point measuring as little as 8.6mm in diameter. With a 40kHz refresh rate, pressure points are then moved very rapidly in 3D space to create a variety of tactile effects in mid-air including:

- Virtual 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



Benefits

A 2019 advertising study¹ comparing interactive digital movie posters to static digital movie posters showed that STRATOS Inspire significantly improves a range of key metrics, including:

- ~2x increase in conversion rate
- +18-33% increase in dwell time
- >50% increase in attention time
- +52% increase in product awareness
- 2.25x increase in ad recall
- +64% increase in purchase intent

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)

Development tools for different workflows

- Software development kit for C# and C++
- Unity® plugin
- Plug-and-play demos, including UI controls demos, interactive marketing posters and VR magic spells demo
- Sensation Editor: tool enabling visualisation of haptic sensations





Robust and safety compliant

The STRATOS Inspire kit is certified compliant to safety and electrical regulatory standards (CE, FCC, NRTL, PSE, RoHS, REACH). It is designed for simple integration into customer applications and can be retro-fitted to existing concepts or hardware.

This enables commercial projects where customers can evaluate the business benefits of hand tracking and mid-air haptics in a public and realistic setting before going forward with customised designs and integration into product lines.

Specifications

Leng		h	Width	Depth	Weight
Metric	188 mm	430 m	m	54 mm	3.1 kg
Imperial	7.5"	17"		2.125"	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 100×100mm mount; desktop stand or wall mount. May be part-recessed into a cabinet.			
Haptic interaction zone:		ldeal 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)			
Hand positioning device:		Leap Motion® camera module.			
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 mid-air haptics demos support only Microsoft Windows. Please check with Ultraleap 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			

About Ultraleap

Ultraleap was formed when Leap Motion and Ultrahaptics came together in May 2019. Our spatial interaction toolkit includes the world's most powerful 3D hand tracking and the only haptic technology able to create the sensation of touch in mid-air. We provide these solutions both separately and together, and expertly support our customers to deliver immersive, intuitive, innovative and often magical experiences.



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